FINAL REPORT

Hydrogeological Field Investigation

Kalaeloa Seawater Desalination Facility (KSDF), Oʻahu, Hawaiʻi

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Executive Summary

The Honolulu Board of Water Supply (BWS) is developing the Kalaeloa Seawater Desalination Facility (KSDF) in Kalaeloa, O'ahu, Hawai'i. The project is designed to pump approximately 4.3 million gallons per day (mgd) of seawater from the deep volcanic aquifer, producing 1.7 mgd of potable water and 2.6 mgd of brine concentrate for injection into the overlying caprock aquifer.

The primary objective of this Final Report is to determine the degree of hydraulic separation between the caprock and volcanic aquifers through multiple lines of evidence. This determination is required to demonstrate that the volcanic aquifer is not subject to anthropogenic contamination on the surface or through injection into the caprock. Evaluation and presentation of results occurred through field investigation and analysis, as presented in this Final Report. Field activities included geophysical logging, aquifer testing, water level and tidal monitoring, and water quality and geochemical analysis.

Seawater-quality water supply will come from the two existing onsite volcanic aquifer wells identified as Well Nos. 3-1805-013 ("Well 13") and 3-1805-015 ("Well 15"). These wells are designed to produce water from the volcanic saltwater aquifer. There are three additional onsite monitoring wells: (1) Well No. 3-1805-014 ("Well 14") was completed in the overlying sedimentary caprock formation and (2) MW 1 and MW 2 are two shallow environmental monitoring wells in the caprock aquifer.

Findings and Conclusions

Geophysical, hydraulic, and water quality investigations collectively indicate that the caprock and volcanic aquifers at the KSDF project site are hydraulically distinct and separated by low-permeability confining layers.

Geophysical logging, used in conjunction with available geologic logs, identified distinct high gamma intervals at the base of, and within, the caprock that correlate with mud- and silt-rich zones observed in lithologic cross-sections. These intervals are interpreted as laterally continuous, low-permeability horizons that can act as confining units between the caprock and volcanic aquifers. The logging process detected a mud or silt layer between 120 and 180 feet below ground surface (bgs), more interbedded mud between 370 and 1070 feet bgs, and interlayered weathered basalt (saprolite and basalt derived soil) and basalt around 1200 feet bgs. These results support the hypothesis that there are mud layers in the caprock that act as low-permeability confining layers, separating the caprock and volcanic aquifers.

Aquifer testing results are consistent with limited vertical hydraulic connectivity between the caprock and volcanic aquifers. Wells 13, 14, and 15 test pumping occurred separately, while monitoring took place in the remaining wells. Observations of water levels during pumping showed instantaneous responses in Well 13 to pumping in Well 15. In contrast, there was no observed response in Well 14 during pumping of the volcanic wells, nor in the volcanic aquifer during pumping of Well 14, indicating that a hydraulic barrier separates the highly transmissive caprock from the volcanic aquifer. Pastas, a time series analysis package, was used to remove tidal and other signals from the water levels to help distinguish drawdown from pumping. These results support the hypothesis that the volcanic aquifer production intervals are hydraulically separated from the caprock injection interval by one or more low-permeability layers. The response of water levels in the volcanic aquifer to seismic waves from the Kamchatka earthquake further supports the interpretation that the volcanic aquifer is confined. Overall,

the aquifer testing provided consistent evidence for a low-permeability barrier separating the caprock and volcanic aquifers.

Water quality sampling and analysis provided additional evidence for hydraulic separation between the volcanic and caprock aquifers. Groundwater from the volcanic aquifer (Wells 13 and 15) reflects a seawater source, with total dissolved solids, major ion composition, and stable isotope signatures consistent with offshore samples of seawater. After extended pumping tests, neither volcanic well showed evidence of anthropogenic contamination. In contrast, groundwater from the shallow caprock wells (MW 1 and MW 2) exhibited lower salinity, a meteoric isotopic signature, relatively young recharge ages, and detectable concentrations of petroleum hydrocarbons and per- and polyfluoroalkyl substances (PFAS) compounds indicative of anthropogenic influence. Well 14, which intersects both the upper and lower caprock aquifers, displayed mixed characteristics, showing a seawater chemical signature similar to the volcanic wells but with the presence of low-level PFAS and hydrocarbon contamination consistent with caprock influence.

The absence of significant change in volcanic well water quality during pumping, combined with the lack of measurable drawdown between aquifers and the geophysical evidence of low-permeability confining units, provides a consistent and robust multiple lines of evidences supporting the conclusion that the volcanic and caprock aquifers are hydraulically separated.

Table of Contents

1.0 Introduction 1
2.0 Site Identification 3
2.1 Project Site Description 3
2.2 Site History 7
2.3 Topography and Elevations 11
2.4 Climate 13
2.5 Tidal Regime 14
2.6 Land-Use and Water Quality Impacts 15
2.6.1 Surrounding Land-Use 15
2.6.2 Previous Environmental Investigations 15
2.6.3 Other Water Quality Investigations 19
2.6.4 Injection Wells and Onsite Disposal Systems 19
2.6.5 Underground Storage Tanks 26
2.6.6 Stormwater Drainage 26
3.0 Hydrogeologic Setting 28
3.1 Geology 28
3.1.1 Regional Geology 31
3.1.2 Local Geology and Hydrostratigraphy 34
3.2 Hydrogeology 38
3.2.1 Regional Aquifer Systems 38
3.3 Water Quality and Geochemistry 53
3.3.1 General Chemistry, Total Dissolved Solids, Inorganics, and Metals 55
3.3.2 Organics 57
3.3.3 Geochemical Constituents and Tracers 60
3.3.4 Radiochemistry 62
4.0 Field Investigation Work Plan 65
4.1 Data Gaps Identified 65
4.1.1 Data Gap: Geology 65
4.1.2 Data Gap: Hydrogeology 65
4.1.3 Data Gap: Water Quality and Geochemistry 65

4.2 DOH Recommendations 66
5.0 Field Investigation Elements 67
6.0 Geophysical Logging Program 69
6.1 Hypothesis and Outcome Scenarios 69
6.2 Study Design 70
6.3 Results 71
6.3.1 Well 13 71
6.3.2 Well 14 72
6.3.3 Well 15 72
6.4 Final Outcome 75
7.0 Aquifer Testing Program 76
7.1 Hypothesis and Outcome Scenarios 76
7.2 Study Design 76
7.2.1 Aquifer Testing Methodology 79
7.3 Data Processing 89
7.4 Monitoring Results 90
7.4.1 Well 15 Testing 92
7.4.2 Well 14 Testing 95
7.4.3 Well 13 Testing 98
7.4.4 KP East and West Wells 100
7.4.5 Trends in Tidal Levels 102
7.4.6 Observations After the Kamchatka Earthquake 103
7.4.7 Monitoring Conclusions 104
7.5 Time Series Analysis of Test Data 105
7.5.1 Time Series Analysis 106
7.5.2 Well 15 Testing 108
7.5.3 Well 14 Testing 109
7.5.4 Well 13 Testing 109
7.5.5 Limitations of the Analysis 110
7.6 Evaluation of Aquifer Parameters 111
7.6.1 Volcanic Aquifer 112
7.6.2 Caprock Aquifer 113

7.6.3 Discussion 115
7.7 Final Outcome 116
8.0 Water Sampling and Analysis Program 117
8.1 Hypothesis and Outcome Scenarios 117
8.2 Study Design 119
8.2.1 Offshore Sampling Event 119
8.2.2 Groundwater Sampling Event 121
8.2.3 Laboratory Analysis 122
8.3 Results 122
8.3.1 General Water Quality 122
8.3.2 Stable Isotopes Signatures 130
8.3.3 Residence Time Tracers 133
8.3.4 Radiological Analyses 136
8.3.5 Anthropogenic Constituents 139
8.4 Final Outcome 143
9.0 Final Conceptual Site Model 144
9.1 Study Design 144
9.1.1 Model Properties – Bounds Grid Size, Layers 146
9.1.2 Cross-Sections 146
9.2 Geologic Layers 149
9.2.1 Unconsolidated Layers 149
9.2.2 Volcanics and Reef Limestone Layers 149
9.3 Results 149
9.3.1 Geochemistry 154
9.3.2 Groundwater Flow 156
9.3.3 Model Gaps 158
10.0 Conclusions and Recommendations 160
10.1 Summary of Final Hypothesis 160
10.1.1 Geophysical Logging 160
10.1.2 Aquifer Testing 160
10.1.3 Water Sampling and Analysis 160
10.2 Future Actions 161

11.0 References 162

List of Appendices

Appendix A Deviations from Final Workplan
Appendix B Well 13/Well 15 Investigation and Repair
Appendix C Borehole Lithology Log from GeoLabs, Inc. Geotechnical Engineering Exploration Report
Appendix D Well 15 Final Schematic
Appendix E RECONPetro Geophysical Logs
Appendix F Aquifer Testing Field Data: Water Level Manuals and Water Quality
Appendix G Aquifer Testing Photo Log
Appendix H Water Level Time Series Analysis
Appendix I Laboratory Results

List of Figures

Figure 2-1. KSDF Project site location map. 4
Figure 2-2. KSDF Project site layout. 5
Figure 2-3. Topographic map of the KSDF project site and surrounding areas. 11
Figure 2-4. KSDF project site well and tide gauge elevations. 12
Figure 2-5. Mean annual rainfall for the KSDF project site (Rainfall Atlas, Giambelluca et al., 2013). 13
Figure 2-6. Groundwater recharge map (ʻIke Wai, 2024). 14
Figure 2-7. DOH HEER sites within the vicinity of the KSDF project site. The two red dots represent Site 1- ʻEwa Feedlot and Site 2- Par Hawaii Refining. 16
Figure 2-8. Location of injection wells within the vicinity of the KSDF project site. 20
Figure 2-9. Location of onsite disposal systems (OSDSs) within the vicinity of the project site. 21
Figure 2-10. Simulated concentration of OSDS-Derived Nitrate in Groundwater on Oʻahu (modified from Whittier and El-Kadi, 2009). 25
Figure 2-11. Kalaeloa stormwater system map (City and County of Honolulu, 2021). 27
Figure 3-1. Map of north Pacific Ocean seafloor showing Oʻahu relative to the Hawaiian-Emperor seamount chain. 29
Figure 3-2. Map of Oʻahu showing the KSDF project site and the general distribution of geologic formations. 30
Figure 3-3. Local surficial geology of the ʻEwa Plain. 31
Figure 3-4. Map of surficial geology on Oʻahu. 32
Figure 3-5. Map of Oʻahu showing the KSDF project site relative to the caldera and major rift zones. 33
Figure 3-6. Temperature profiles in the volcanic production wells at the KSDF project site completed between 2001 and 2003 (modified from BWS, 2019). 35
Figure 3-7. Cross-sections of geology near KSDF Site, showing low-permeability class base (modified from Oki et al., 1996). 36
Figure 3-8. Diagram showing the general conceptual hydrogeologic model for the island of Oʻahu. 39
Figure 3-9. CWRM Groundwater Hydraulic Unit Map, Island of Oʻahu (CWRM, 2018). 43
Figure 3-10. Aquifer System map for the KSDF project site (CWRM WRPP, 2019). 44
Figure 3-11. CWRM-permitted wells within the vicinity of the KSDF project site. 45
Figure 3-12. Monthly pumpage within Malakole Aquifer (CWRM, 2000 – 2025). 47
Figure 3-13. Monthly pumpage within Kapolei Aquifer (CWRM, 2000 – 2025). 48
Figure 3-14. Monthly pumpage within ʻEwa-Kunia Aquifer (CWRM, 2000 – 2025). 49
Figure 3-15. Par Hawaii Refinery Monthly Pumpage (CWRM, 2017 – 2025). 50
Figure 3-16. Monthly pumpage by Hawaiian Electric Company, Well No. 3-1805-004 (CWRM, 2000 – 2025). 50
Figure 3-17. Monthly pumpage by VIP Sanitation (CWRM, 2000 – 2025). 51
Figure 3-18. Historic pumping test of Well 13. 52
Figure 3-19. Historic pumping test of Well 14. 53
Figure 6-1. Geophysical logging gamma ray signal results and interpretation. 74
Figure 7-1. Monitoring Locations: transducer deployment locations. 78
Figure 7-2. Discharge pipe configuration. 81
Figure 7-3. NOAA observed and predicted tides at Honolulu Tidal Station ID#: 1612340 from July 9, 2025 to July 10, 2025 during Well 15 cycle test (NOAA, 2025a). 84
Figure 7-4. NOAA observed and predicted tides at Honolulu Tidal Station ID#: 1612340 from August 13, 2025 to August 14, 2025 during the Well 13 cycle test (NOAA, 2025a). 88

Figure 7-5. Example: manual measurements of water elevation and transducer data shifted to fit the manual measurements for Well 13. The time series shown corresponds to cycle testing of Well 15. 89
Figure 7-6. Example: manual measurements of water elevation and transducer data fit to the manual measurements for Well 15. The time series shown corresponds to the step test and constant rate test of Well 14. 90
Figure 7-7. An overview of the water levels and pumping rates in Wells 15, 14, and 13 throughout the testing period. 91
Figure 7-8. Water levels recorded in MW 1 and MW 2 throughout the testing period. 91
Figure 7-9. Tidal data recorded at the Honolulu gauge ID#: 1612340.....92
Figure 7-10. Comparison of the Honolulu tide, measurements from the onside tide gauge, and the onsite data smoothed over 61 minutes. 92
Figure 7-11. Tidal data recorded following the tsunami. 92
Figure 7-12. Fluctuations in transducer data during the 120-hour constant rate test of Well 15.....93
Figure 7-13. Water levels in Wells 13 and 15 during testing of Well 15. 93
Figure 7-14. Water levels in Wells 14 and 15 during testing of Well 15. 94
Figure 7-15. Water levels during the step test for Well 15. 94
Figure 7-16. Water levels during the cycle test for Well 15. 94
Figure 7-17. Detailed view of water levels at the start (left) and end (right) of the 120-hour constant rate test of Well 15. 95
Figure 7-18. Water levels in Wells 14 and 15 during testing of Well 14. 95
Figure 7-19. Water levels in Wells 14 and 13 during testing of Well 14. 96
Figure 7-20. Water levels during the step test of Well 14. 96
Figure 7-21. Details of water levels at the start (left) and end (right) of the 120-hour constant rate test of Well 14. 97
Figure 7-22. Water levels in Well 14 and MW 1 during testing of Well 14.....97
Figure 7-23. Details of water levels in MW 1 and Well 14 at the start (left) and end (right) of the 120-hour constant rate test of Well 14. 98
Figure 7-24. Water levels in Wells 13 and 15 during testing of Well 13. 98
Figure 7-25. Water levels in Well 14 and MW 1 during testing of Well 13.....99
Figure 7-26. Water levels during the step test of Well 13. 99
Figure 7-27. Water levels during the cycle test of Well 13. 100
Figure 7-28. Details of water levels at the start (left) and end (right) of the 120-hour constant rate test of Well 13. 100
Figure 7-29. Water recorded levels in the nested pair, KP East and West. 101
Figure 7-30. Details of water levels in Wells KP East and West. Changes in injections or extraction are observed in KP East on July 20, 21, 24, and 25. The shallower KP West shows no disturbance.....101
Figure 7-31. Water level trends in the tide and upper caprock monitoring wells. Trend lines for the upper caprock and tide monitoring locations are shown as the dashed back lines. 102
Figure 7-32. Trends in water levels in the lower caprock and volcanic aquifers. The bottom dashed line shows the trend in the tidal water levels from the previous figure.....103
Figure 7-33. Water level responses to seismic waves and tsunami waves in Wells 13, 14, and 15.....104
Figure 7-34. The tidal stress and pumping stresses defined for the time series analysis.....106
Figure 7-35. Results from the analysis of the Well 15 time series. The observed time series is on top with components related to each stress beneath. Note that each frame has a different vertical scale.107

Figure 7-36. The impacts of Well 15 testing on Well 15, Well 13, Well 14 and MW 1. Note that each frame has a different vertical scale. The vertical axis for Well 14 and MW 1 ranges from -0.01 to +0.01 feet. 108
Figure 7-37. The impacts of Well 14 testing on Well 14, MW 1, MW 2, Well 15 and Well 13. Note that each frame has a different vertical scale. The vertical axis for Well 15 and Well 13 ranges from -0.01 to +0.01 feet. 109
Figure 7-38. The impacts of Well 13 testing on Well 13, Well 15, Well 14, and MW 1. Note that each frame has a different vertical scale. The vertical axis for Well 14 and MW 1 ranges from -0.01 to +0.01 feet. 110
Figure 7-39. Drawdown in Well 15 and Well 13 during the 120-hour constant-rate test of Well 15 (top) and drawdown in Well 15 and Well 13 during the 120-hour constant-rate test of Well 13 (bottom). The drawdown signals were evaluated by the time series analysis. 112
Figure 7-40. Drawdown in Well 14, MW 1, and MW 2 during the 120-hour constant-rate test of Well 14. The drawdown signals were evaluated by the time series analysis. 113
Figure 7-41. Schematic of Well 14 through the Upper and Lower Caprock. The discharge of the well is divided between the upper and lower caprock units by the thickness of the unit relative to the total caprock thickness. 114
Figure 8-1. Offshore sampling locations (Offshore 1, Offshore 2, and Offshore 3). 120
Figure 8-2. Durov diagram of the samples for the current study. 125
Figure 8-3. Plot of the δ^2H (‰) versus $\delta^{18}O$ (‰) for samples from the study area. Also plotted are the Local meteoric water line (LMWL) of Brennis et al. (2014) and the Global meteoric water line (GMWL) [δ^2H (‰) = 8($\delta^{18}O$ (‰)) + 10]. 132
Figure 8-4. Relationship of measured gross beta activity to naturally occurring beta activity predicted from measured potassium concentration. 137
Figure 9-1. Extent of the KSDF geologic model with geologic layers illustrated (bottom), and with aerial photography overlaid (top). Geologic layers are tan for alluvium, brown for mud, grey for reef limestone, and red for basalt. 145
Figure 9-2. Regional (yellow) and local (red) cross-section paths with well log locations (light blue points)...147
Figure 9-3. Local (red) cross-section paths with well log locations (light blue points). 148
Figure 9-4. Site cross-section running west-east from A to A'. Mudstone layers were delineated based on gamma ray data collected at each well. 150
Figure 9-5. Local cross-section extending north-south from B to B'. 151
Figure 9-6. Local cross-section running northwest-southeast from C to C'. 152
Figure 9-7. Regional cross-section running west-east from D to D'. 153
Figure 9-8. Site cross-section A-A' with geochemical results summarized for each aquifer. 155
Figure 9-9. Site cross-section A-A' illustrating groundwater flow directions for pumping in Well 13 (blue arrows) and Well 14 (purple arrows). 157
Figure 9-10. Locations of boreholes (pink) and KSDF site (yellow) on the 3D model. 159

List of Tables

Table 2-1. KSDF Project site wells. 6
Table 2-2. KSDF Project site history. 7
Table 2-3. TOC and GL Elevation recorded at Well 13, Well 14, Well 15, MW 1, MW 2 and tide gauge. 12
Table 2-4. Injection wells within a 1-mile radius of the KSDF project site. 22
Table 2-5. OSDS impacts in the 'Ewa Plain (Whittier and El-Kadi, 2009). 25

Table 3-1. Hydraulic parameters of volcanic and sedimentary rocks found on O'ahu. 40
Table 3-2. Aquifer Parameters from Oki (2005). 41
Table 3-3. Aquifer Parameters from Gingerich and Voss (2005). 42
Table 3-4. List of CWRM-permitted wells within a 1-mile radius of the KSDF project site. 46
Table 5-1. Timeline of key field investigation events following WP. 67
Table 7-1. Depth and open casing formation of wells included in aquifer test. 79
Table 7-2. Manual water level interval frequency. 80
Table 7-3. Average drawdown during Well 15 step drawdown test. 82
Table 7-4. Cycle test for Well 15. 83
Table 7-5. Average drawdown during Well 15 constant rate test. 84
Table 7-6. Average drawdown during Well 14 step test. 85
Table 7-7. Average drawdown during Well 14 constant rate test. 86
Table 7-8. Average drawdown during Well 13 step test. 86
Table 7-9. Cycle Test for Well 13. 87
Table 7-10. Average drawdown during Well 13 constant rate test. 88
Table 7-11. Precipitation records at the 'Ewa Kalaeloa Airport and the Honolulu International Airport (NOAA, 2025c). 105
Table 7-12. Estimates of the hydraulic properties of the volcanic aquifer, based on the testing of Well 15. 113
Table 7-13. Estimates of the hydraulic properties of the volcanic aquifer, based on the testing of Well 13. 113
Table 7-14. Estimates of the hydraulic properties of the caprock aquifer, based on the testing of Well 14. 115
Table 7-15. Best-estimates of the hydraulic properties of the volcanic and caprock aquifers. Note the thickness of the volcanic aquifer varies between the total length of the open well bore and the total depth of the basalt. 116
Table 8-1. PHREEQC results using the SIT model showing the ionic strength, charge balance error (CBE), and the saturation index of key mineral phases. 123
Table 8-2. Chemical distinction and effect of pumping between the shallow caprock samples, caprock (Well 14), the volcanic samples, and seawater samples. 126
Table 8-3. Radiological distinction and effect of pumping between the shallow caprock samples, caprock (Well 14), the volcanic samples, and seawater samples. 138

Acronyms and Abbreviations

°C	degrees Celsius
°F	degrees Fahrenheit
‰ VPDB	permil difference relative to Vienna Pee Dee Belemnite reference standard
‰ VSMOW	permil difference relative to Vienna Standard Mean Ocean Water reference standard
µg/L	micrograms per liter
µS/cm	microSiemens per centimeter
$\delta^{13}C$	carbon-13 to carbon-12 isotope ratio relative to reference standard
$\delta^{18}O$	oxygen-18 to oxygen-16 isotope ratio relative to reference standard
$\delta^{2}H$	hydrogen-2 to hydrogen-1 isotope ratio relative to reference standard
3D model	3D geologic solid model
6:2 FTS	1H,1H,2H,2H-perfluorooctane sulfonic acid
AFFF	aqueous film forming foam
ATC	Approval to Construct
bgs	below ground surface
BMP	Best Management Practice
BOD	biochemical oxygen demand
BP	before present (radiocarbon years before 1950)
Bq/kg	becquerels per kilogram
bsl	below sea level
BWS	Honolulu Board of Water Supply
CBE	charge balance error
CFCs	chlorofluorocarbons
CFR	Code of Federal Regulations
COCs	constituents of concern
COD	chemical oxygen demand
CSM	conceptual site model
CWRM	Commission on Water Resource Management
DIC	dissolved inorganic carbon
DO	dissolved oxygen
DOH	Department of Health
DU	Decision Unit
EAL	Environmental Action Level
E_c	electrical conductivity
EDB	ethylene dibromide
EM	electromagnetic

EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
Eurofins	Eurofins Eaton Analytical Pomona
GIS	geographic information system
GL	ground level
GMWL	global meteoric water line
gpd	gallons per day
gpm	gallons per minute
HAR	Hawai‘i Administrative Rules
HAT	Highest Astronomical Tide
HEER	Hazard Evaluation and Emergency Response
HSUs	hydrostratigraphic units
IAEA	International Atomic Energy Agency
ICA	ICA Labs Inc.
ID	inside diameter
INTERA	INTERA Incorporated
K	hydraulic conductivity
KD	Kalaeloa Desalco LLC
KSDF	Kalaeloa Seawater Desalination Facility
LMWL	local meteoric water line
LNAPL	light non-aqueous-phase liquid
LUST	leaking underground storage tank
MA	million years ago
MCL	Maximum Contaminant Level
MDL	method detection limit
mg/L	milligrams per liter
mgd	million gallons per day
MI	multi-incremental
MS4	Municipal Separate Storm Sewer System
mS/cm	milliSiemens per centimeter
msl	above mean sea level
MARIS	Marine Radioactivity Information System
MTBE	methyl tert-butyl ether
NAD 83	North American Datum of 1983
NAVD 88	North American Vertical Datum of 1988
NAVFAC	Naval Facilities Engineering Command
ng/L	nanograms per liter

NOAA	National Oceanic and Atmospheric Administration
NTDE	National Tidal Datum Epoch
NWIS	USGS National Water Information System
OD	outside diameter
ORP	oxidation-reduction potential
OSDS	On-Site Disposal System
PAHs	polycyclic aromatic hydrocarbons
Par Hawaii	Par Hawaii Refining, LLC
PCBs	polychlorinated biphenyls
pCi/L	picocuries per liter
PFAS	per- and polyfluoroalkyl substances
PFBA	perfluorobutanoic acid
PFBS	perfluorobutane sulfonic acid
PFDA	perfluorodecanoic acid
PFHpA	perfluoroheptanoic acid
PFHpS	perfluoroheptanesulfonic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
PFPeA	perfluoropentanoic acid
PFPeS	perfluoropentanesulfonic acid
PFUnA	perfluoroundecanoic acid
PPM	parts per million
RCRA	Resource Conservation and Recovery Act
RECs	Recognized Environmental Conditions
RL	reporting limit
RO	reverse osmosis
SDWB	Safe Drinking Water Branch
S_c	specific conductance
SF_6	sulfur hexafluoride
SHWB	Solid and Hazardous Waste Branch
SI	saturation index
SP	spontaneous potential
SVOCs	semi-volatile organic compounds
TD	total depth

TDS	total dissolved solids
TFN	Transfer Function Noise
TICs	tentatively identified compounds
TMK	Tax Map Key
TOC	top of casing *or* total organic carbon
TPH	total petroleum hydrocarbons
TPH-D	TPH as diesel
TPH-G	TPH as gasoline
TPH-O	TPH as oil
TU	tritium unit
UCMR 5	Unregulated Contaminant Monitoring Rule
UIC	Underground Injection Control
USGS	United States Geological Survey
UST	underground storage tank
VOCs	volatile organic compounds
WP	Work Plan

1.0 Introduction

In an effort to meet increasing potable water demands in West Oʻahu, the Honolulu Board of Water Supply (BWS) plans to build a saltwater desalination facility in Kalaeloa. The Kalaeloa Seawater Desalination Facility (KSDF) will supplement the BWS's ongoing efforts to diversify Oʻahu production sources and improve Hawaiʻi water resilience to climate change. The facility will produce seawater-quality feed water from the deep (>1,100 feet below ground surface [bgs]) volcanic aquifer, treat the seawater to drinking water standards using primarily reverse osmosis (RO), and dispose of the brine concentrate by injection into the overlying caprock aquifer at a depth of about 400 feet bgs. The intent to use the desalinated water for public use has raised concerns about whether hydraulic separation exists between the caprock and volcanic aquifers and, more specifically, about the degree of protection of the volcanic aquifer from potential contamination sources in the caprock.

Based on knowledge of the regional and local hydrogeologic regimes, it is hypothesized that (1) the volcanic aquifer is hydraulically separated from the overlying caprock and (2) after desalination, water from the volcanic source aquifer is safe for potable use. Hydraulic separation between the caprock and the volcanic aquifers is important because the shallower caprock aquifer is expected to be susceptible to contamination from anthropogenic sources, while the underlying volcanic aquifer is expected to be separated from the caprock aquifer by lower permeability units in the caprock, including extensive lagoonal muds deposited in the near shore caprock reef environment. To test this hypothesis, the BWS and their technical consultants, INTERA Incorporated (INTERA), developed and completed a hydrogeologic field investigation to assess the hydraulic separation between the two aquifers and determine if the volcanic source aquifer is protected from contamination and acceptable for desalination and public distribution. The methods, findings, and conclusions from the hydrogeologic field investigation are described in this Final Report.

As discussed in **Section 2.0**, INTERA's desktop review of all relevant background information revealed several key data gaps that require further assessment to better characterize the hydrogeologic relationship between the caprock and volcanic aquifer at the KSDF project site. As such, INTERA prepared a Field Investigation Work Plan (Final WP) and submitted it to the BWS in October 2024 (INTERA, 2024). Deviations from the Final WP are in **Appendix A**. The Final WP serves as a data gap analysis and describes a proposed integrated field investigation program designed to test the hypothesis that sufficient hydraulic separation exists between the caprock aquifer and the production zone in the volcanic aquifer to protect the supply source wells from harmful migration of constituents of concern (COCs) from the caprock. The report sections provided herein address the elements of the Final WP used to support the hypothesis of hydraulic separation.

The primary objective of this field investigation was to test the hypothesis that a hydraulic separation exists between the production zone in the volcanic aquifer and the caprock aquifer. This hydrogeological field investigation was performed as part of a due diligence effort, supporting the BWS' commitment to being good stewards and protectors of Oʻahu's aquifers and water resources.

This report compiles geologic, geophysical, hydrogeologic, geochemical and environmental information obtained from desktop research and fieldwork to characterize the hydrogeologic framework, geochemistry, and groundwater-flow system of the caprock and underlying volcanic aquifer.

The report is organized into the following sections:

- Section 2: Site Identification
- Section 3: Hydrogeologic Setting
- Section 4: Field Investigation Work Plan
- Section 5: Field Investigation Elements
- Section 6: Geophysical Logging Program
- Section 7: Aquifer Testing Program
- Section 8: Water Sampling and Analysis Program
- Section 9: Final Conceptual Site Model
- Section 10: Conclusions and Recommendations
- Section 11: References
- Appendices

2.0 Site Identification

This section describes the project site and includes general background information about surrounding land use and potential environmental impacts. The information presented in this section is based on a desktop review of publicly available information, as well as BWS-provided past studies and historic data.

2.1 Project Site Description

The KSDF project site is an approximately 20-acre parcel located in Kalaeloa, on the south coast of the island of O'ahu (**Figure 2-1**). The site is identified as Tax Map Key (TMK) [1] 9-1-031: Parcel 028. The KSDF is designed for approximately 1.7 million gallons per day (mgd) of potable water production. This will require routine pumping of 4.3 mgd seawater-quality water and disposal of 2.6 mgd brine. Seawater supply for the proposed KSDF will come from two existing onsite volcanic aquifer wells (often referred to as the "basalt" wells) identified as Well Nos. 3-1805-013 ("Well 13") and 3-1805-015 ("Well 15"). These wells are designed to produce water from the volcanic saltwater aquifer. A third well, identified as Well No. 3-1805-014 ("Well 14") and permitted through the Commission on Water Resource Management (CWRM), was completed in the overlying sedimentary caprock formation. Well 14 was later permitted as an injection well under underground injection control (UIC) permit (UIC No. UO-2179) for the purposes of injecting pilot test desalination brine. In addition to the seawater supply source wells and caprock well, there are two shallow environmental monitoring wells located onsite (MW 1 and MW 2), which were installed as part of a Phase II Environmental Site Assessment (ESA) in 2022. A map of the onsite wells is provided in **Figure 2-2**. **Table 2-1** describes well construction details associated with each well.

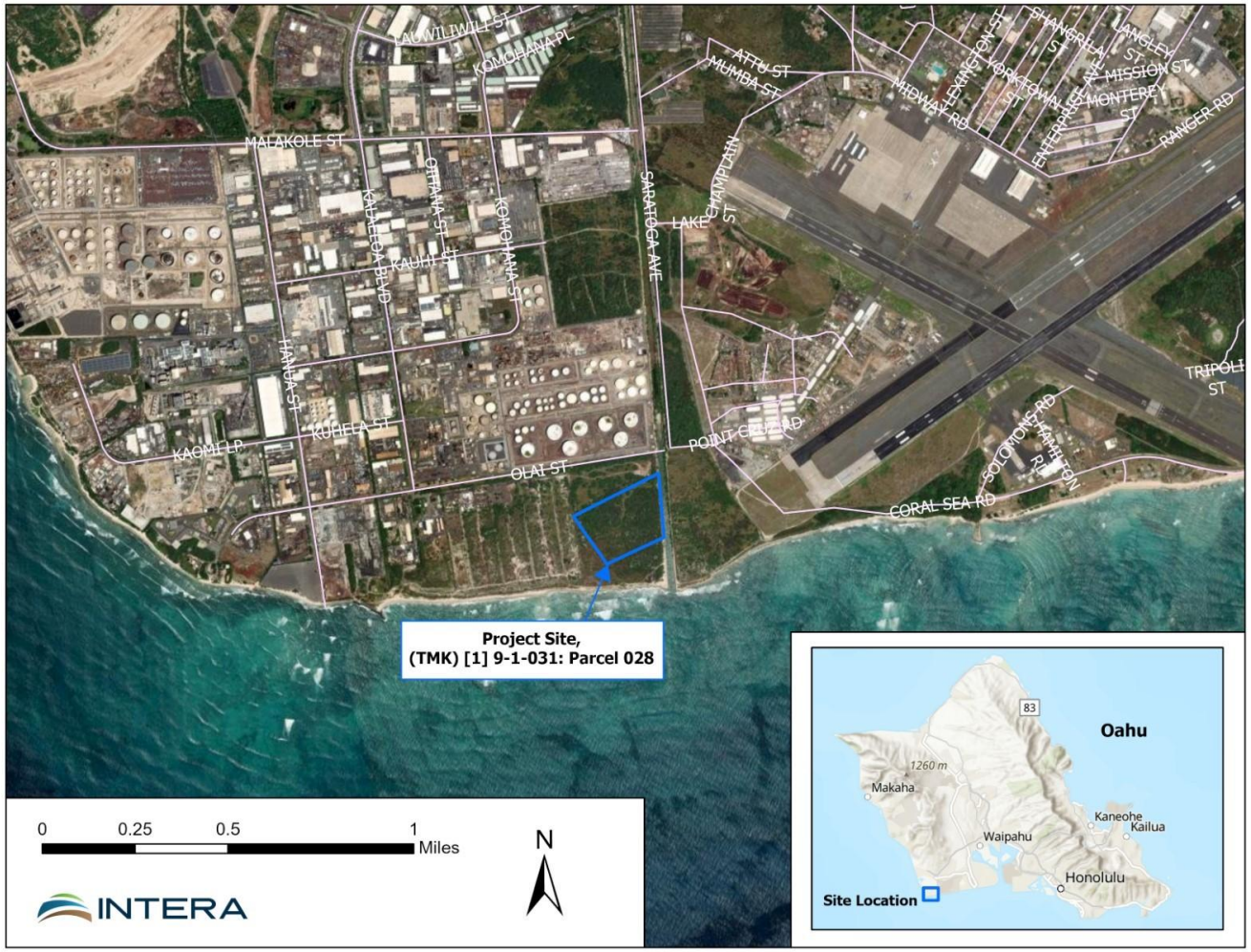


Figure 2-1. KSDF Project site location map.

Figure 2-2. KSDF Project site layout.

Table 2-1. KSDF Project site wells.

Well Number	Well Name	Approximate Well Depth (feet bgs)	Well Construction Details	Open Casing Formation & Aquifer Setting
3-1805-013	Well 13	1,599	**Schedule 80 PVC Casing**: 20-inch (in.) outside diameter (OD) from 0 to 1,100 feet bgs. **Open Hole**: 17.5- in. diameter from 1,100 to 1,599 feet bgs*. *Total depth (TD) was tagged at 1,599 feet bgs during a video survey performed in June 2024.	Wai'anae Volcanics (i.e., Basalt) – Volcanic Aquifer
3-1805-014	Well 14	300	**SDR 17.4 PVC Casing**: 17.4-in. OD from 0 to 50 feet bgs. **Perforated SDR 17.4 PVC Casing**: 17.4-in. diameter from 50 to 300 feet bgs.	Caprock – Upper and Lower Caprock Aquifer
3-1805-015	Well 15	1,556	**Schedule 80 PVC Casing**: 30-in. Schedule 80 PVC casing from 0 to 75 feet bgs., 30-in x 18-in. inside diameter (ID) PVC concentric reducer from 75 to 77 feet, 18-in. ID schedule 80 PVC solid casing from 77 to 1100 feet. **Stainless Steel Liner**: 24-in OD Super Duplex Steel Liner from 0 to 71.4 feet bgs, 24-in. x 13.25-in. Super Duplex Steel Reducer from 71.4 to 73.2 feet bgs, 14-in. OD Super Duplex Steel Liner from 73.2 to 110.6 feet bgs. **Open hole**: from 1100 to 1,556 feet bgs*. * TD was tagged at 1,556 feet bgs during a video survey performed in February 2024.	Wai'anae Volcanics (i.e., Basalt) – Volcanic Aquifer
NA	MW 1	17	Flush-mount 8-in. conductor casing. **Solid PVC Casing**: 1.5-in. I.D. diameter from 0.6 to 5 feet bgs. **PVC Slotted Casing**: 1.5-in. I.D. diameter from 5 to 17 feet bgs.	Caprock – Upper Caprock Aquifer
NA	MW 2	17	Flush-mount 8-in. conductor casing. **Solid PVC Casing**: 1.5-in. ID from 0.65 to 7 feet bgs. **PVC Slotted Casing**: 1.5-in. ID from 7 to 17 feet bgs.	Caprock – Upper Caprock Aquifer

Table References: CWRM 2002a, CWRM 2002b, CWRM 2005, ETC 2022, INTERA Well 15 Investigation.

2.2 Site History

A brief history of the BWS activity at the KSDF project site is summarized in **Table 2-2**.[1]

Table 2-2. KSDF Project site history.

Year	Summary
1999-2002	Barbers Point Naval Air Station officially closed in 1999. The BWS applied for the land during the Base Realignment and Closure process and was eventually awarded the 20-acre parcel. The caprock well (Well 14) was drilled and completed in July 2001 (CWRM, 2002a) [1]. Test pumping of the Well 14 was completed October 10, 2001; water quality results from this sampling event were consistent with seawater quality. Turbine oil that had apparently leaked from the pump was observed in the well as of March 22, 2002. A second sample collected March 4, 2002 was labeled "Caprock" in the laboratory report, but no other documentation of any sampling event for Well 14 on that date has been located. Organic material in the sample was detected at a concentration of 2.51 milligrams per liter (mg/L) by an oil and grease analysis as well as the total recoverable petroleum hydrocarbons (TRPH) method, which could be explained by a pump turbine oil leak if the sample were from Well 14. Measures were taken to clean up the oil by bailing and absorption in April 2002. Refer to Footnote 1 for current Well 14 considerations.
2002	Well 13 was drilled and completed in March 2002 (CWRM, 2002b). Source groundwater samples were collected from Well 13 in March 2002. Water quality results from this sampling event were consistent with seawater quality. Following construction, the BWS collected water level and pumpage data from Well 13. Well 14 was issued a UIC permit No. UO-2179 in December 2002. The UIC permit allows for the injection of product water, brine, and wastewater from the cleaning and backflushing operations associated with desalination pilot testing.
2003	Oceanit performed a RO study at the KSDF project site from June to October 2003. The study's purpose was to assess and optimize desalination facility design, operation, and maintenance procedures. Pilot study feed water was pulled from Well 13 and sampled prior to treatment.
2004	Well 15 was completed in November 2004 (CWRM, 2005). There are no known water quality results associated with the Well 15 installation.
2008	A Final Environmental Impact Statement (EIS) for the proposed BWS KSDF was prepared in 2008 (Oceanit, 2008).
2016	Well 14 UIC permit No. UO-2179 was renewed in June 2016.

[1] Well 14 was initially intended as an injection well for disposal of production brine from the completed KSDF; however, the well was later determined to be unviable for long-term operation and better used as a temporary injection well during desalination pilot testing. Well 14 will eventually need to be closed/sealed or converted to a monitoring well. Two new injection wells are slated for construction onsite to replace Well 14 and receive production brine from the completed KSDF.

Year	Summary
2017	In 2017, downhole TV video logging was performed in Well 15 and Well 13.
2018	In January 2018, Element Environmental LLC conducted three days (six rounds) of water quality sampling from Well 13 (Element Environmental, 2018). The results of this sampling event were consistent with seawater quality and are saved in the BWS records and are available upon request.
2021	In December 2021, a UIC permit application for a new injection well was submitted to the Department of Health (DOH) (UO-3104). The purpose of the new injection well was to dispose of production brine from the planned KSDF. The application was later updated to include two new injection wells on Ōlai Street. The new injection wells are intended to replace the Well 14 injection well. Well 14 UIC permit No. UO-2179 was renewed in December 2021.
2022	EnviroServices and Training Center LLC (ETC) conducted a Phase II ESA at the KSDF project site in August 2022, which included installing two environmental monitoring wells (i.e., MW 1 and MW 2) (ETC, 2022).
2023	In 2023, the BWS awarded a design-build-operate-maintain (DBOM) services contract to Kalaeloa Desalco LLC (KD) to design, build and operate the facility, with a targeted operational start date in 2027. In September 2023, the Department of Health (DOH) met with the BWS to express their concern that the low-permeability zones in the surficial sedimentary caprock formation may not be continuous and that—as a result—pumping seawater-quality water from the underlying volcanic aquifer could draw contamination from the caprock into the BWS source wells. At that time, DOH indicated that the available relevant hydrogeologic information was inconclusive. Following this meeting, the DOH provided a “Path Forward” to address concerns about how to protect the aquifer from potential contamination. In response, the BWS submitted a draft Field Investigation Work Plan for DOH to review on November 16, 2023. DOH responded with comments on December 20, 2023, requesting additional justification to support interpretations and/or conclusions about the hydraulic connections between the two aquifers. In December 2023-January 2024, INTERA conducted a water level study at the KSDF project site to evaluate onsite groundwater gradients and investigate the response of water levels in the wells to tidal forcing. The results of the water level study led to the discovery that the casing and/or annular seal of Well 15 was leaking.

Year	Summary
2024	In February 2024, Kalaeloa Desalco LLC (KD) kicked off Phase I of a regulatory desalination pilot study. Phase II of the pilot study was completed from September 2024 to January 2025. KD's pilot study was designed to characterize well water quality, evaluate desalination system equipment and RO membrane performance, optimize post-treatment, and validate proposed water treatment and post-treatment equipment design. The pilot testing included water quality sampling and analysis of source water from Well 13 (KD, 2025). The Well 13 results were consistent with seawater quality. The water quality results from the pilot study are saved in the BWS records and are available upon request. In February 2024, Hawaii Drilling and Pump Service LLC conducted a down hole video survey in Well 15. The video survey was part of a preliminary inspection of Well 15 for the ongoing desalinization plan project. In May 2024, a second video inspection of Well 15 occurred to look for possible indications of leaks or areas where the casing integrity had been compromised. The video survey identified possible areas of casing leakage at the PVC joints and the concentric reducer. The video survey also identified biological growth/biofouling at several casing joints. INTERA subcontracted Colog in June 2024 to perform borehole geophysical logging to evaluate the casing joints and annular space integrity of Well 15 and address potential leakage. Colog implemented a set of tests to evaluate the well's integrity. Technologies used to evaluate the condition of the well casing and the grout behind the casing included flowmeter, temperature, fluid conductivity, acoustic televiewer, full-waveform sonic, caliper, and hydroscopic deviation. Geophysical logging of Well 15 detected leakage from the caprock formation at the PVC concentric reducer and the pipe nipple that was originally used for grouting. Based on these findings, INTERA proposed a repair program, which included installation of a stainless steel liner, using packers for pressure grouting (**Appendix B**). Because Well 13's original construction was similar to Well 15's, Colog borehole geophysical logging was also performed on Well 13 to identify potential leakage. The results from geophysical logging on Well 13 indicated no evidence of leakage (Appendix B). In October 2024, a Final WP was submitted to DOH for review. DOH provided no comments pertaining to the Final WP. As such, the BWS has decided that the Final WP and the results from the field investigation presented in this report are primarily for BWS use. On December 2024, GeoLabs Inc. drilled a 300 foot geotechnical borehole for Kalaeloa Desalco between the locations of the two future UIC wells on Ōlai Street (UO-3104. The Geotechnical Engineering Exploration Report and the associated boring logs are provided in **Appendix C**.

Year	Summary
2025	Well 15 well was bailed in February 2025 to remove fill from the bottom of the well given uncertainties regarding the depth. Following rigorous bailing, the bottom of the well was tagged at 1,556 feet bgs. A post-bailing video confirmed TD and indicated that the PVC casing remained undamaged during the bailing program. In April 2025, INTERA managed the installation and grouting—performed by Alpha Inc.—of a stainless steel liner in Well 15 to seal off leak at the reducer. The final well schematic is provided in **Appendix D**. A post-installation video survey confirmed all measurements made during installation. Additionally, the survey detected no grout leakage in the liner, below the liner, in the open borehole, or at the well bottom. Following liner installation and grouting, a brief water level study took place to determine whether the Well 15 repair was successful. The study confirmed that Well 15 had been effectively sealed, and the well was no longer hydraulically connected to the overlying caprock formation. From April to August 2025, INTERA performed a series of field investigation programs, specified in the Final WP. The field investigation programs included geophysical logging, aquifer testing, and water quality and geochemical tracer sampling. The dates associated with each program are provided as follows: ▪ On April 26 and May 2, 2025, INTERA installed water level loggers at the project site in preparation for aquifer testing. ▪ On May 15, 2025, INTERA performed an elevation survey of the onsite wells and the tide gauge to prepare for aquifer testing, as well as for the Well 15 repair submittal to CWRM. ▪ On May 23, 2025, RECON Petrotechnologies Inc. (RECONPetro) performed geophysical well logging on Wells 13, 14, and 15. The results from the geophysical logging program are discussed further in **Section 6.0** and **Appendix E**. ▪ On May 27, 2025, INTERA performed offshore water quality and geochemical tracer sampling. The offshore sampling event is further discussed in **Section 8.2.1**. ▪ On June 2, 2025, INTERA and Precision Drilling Services LLC (Precision) mobilized to the project site to kick off aquifer testing. Security concerns delayed commencement of testing by one month until security measures were implemented. ▪ From July 7 to August 22, 2025, INTERA and Precision performed aquifer testing on Wells 13, 14, and 15. During this time, water quality and geochemical tracer samples were collected from the onsite wells. The aquifer testing program is further discussed in **Section 7.0**. Water quality and geochemical analysis are further discussed in **Section 8.0**. Static water level monitoring was recorded following aquifer testing, from August 22 to August 31, 2025. ▪ In September 2025, an approval-to-construct (ATC) was issued for the two new injection wells on Ōlai St. (UO-3104). The wells are intended to discharge into the lower caprock aquifer.

2.3 Topography and Elevations

A United States Geological Survey (USGS) topographic map is presented in **Figure 2-3**. In general, the site topography is flat, with an elevation of approximately 11 feet above mean sea level (msl).

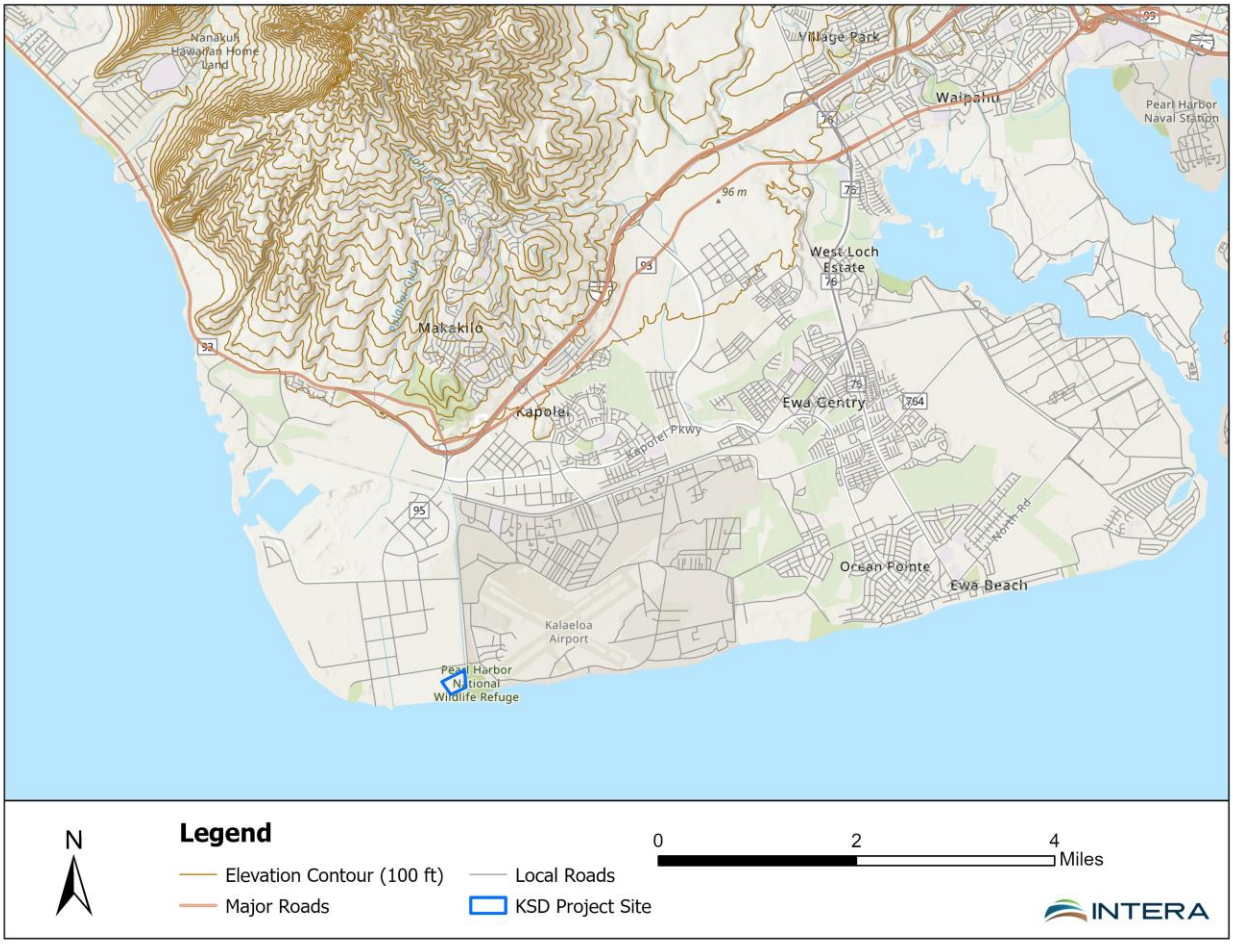


Figure 2-3. Topographic map of the KSDF project site and surrounding areas.

INTERA performed an elevation survey on May 15, 2025 using a Stonex S980A GNSS Receiver. This GPS instrument uses Real Time Kinematic base station corrections and achieves horizonal and vertical accuracy in the range of 0.05-0.1 foot. The survey collected elevations from six locations: Wells 13, 14, and 15, the two monitoring wells (MW 1 and MW 2), and a temporary tide gauge INTERA installed in the adjacent canal (tide gauge). Top of PVC casing (TOC) and ground level (GL) benchmark elevations were taken at all six locations (

Table 2-3).

Well benchmark calculations used the current National Tidal Datum Epoch (NTDE, 1983-2001). The horizontal datum azimuths and coordinates referred to the North American Datum of 1983 (NAD 83), Hawai'i State Plane Coordinate System, Zone 3 (US feet). Vertical elevations referred to W0 from

USGG2012, referenced to the Real Time Kinematic base station located at 94-356 Uke‘e St, Waipahu, HI 96797. The vertical TOC and GL survey elevations noted in

Table 2-3 were converted to feet above local msl as referenced to North American Vertical Datum of 1988 (NAVD 88). The location of each site is shown in **Figure 2-4**.

Table 2-3. TOC and GL Elevation recorded at Well 13, Well 14, Well 15, MW 1, MW 2 and tide gauge.

Well	TOC Elevation (msl)	GL Elevation (msl)
Well 13	15.23	13.13
Well 14	13.13	11.98
Well 15	14.04	12.32
MW 1	11.24	11.39
MW 2	11.30	11.83
Tide Guage	14.80	n/a

Figure 2-4. KSDF project site well and tide gauge elevations.

2.4 Climate

The climate at Kalaeloa is subtropical with average temperatures ranging from a low of 70 degrees Fahrenheit (°F) in the winter to high 80s °F during the summer months (Longman et. al, 2024). In general, Kalaeloa is relatively dry with minimal rainfall throughout most of the year, the driest period being between April to September. The mean annual rainfall is 21.7 inches per year with rainfall peaks in December and January (**Figure 2-5**, Giambelluca et al., 2013). Hawai'i's heaviest rains generally originate from winter storms between October and April (Price, 1983). The frequency and intensity of local rainfall is significant because rainfall contributes to groundwater recharge and affects groundwater flow in both the phreatic zone and porewater transport in the vadose zone. Significant groundwater recharge events occur only a few times a year, primarily during Kona storms or tropical storms. The baseline average annual recharge (1978-2007) at the KSDF project site is approximately 3.33 inches per year (**Figure 2-6**, 'IkeWai, 2001). For reference, the average baseline recharge for the entire island is 23.24 inches per year, which is approximately 659 million gallons per day. Precipitation and recharge rates are predicted to change on O'ahu due to climate change. Based on forecasted changes in precipitation, statistical analysis and simulation of recharge rates suggest that South O'ahu will experience a recharge decline of approximately 8.8 mgd (Izuka et al., 2023)

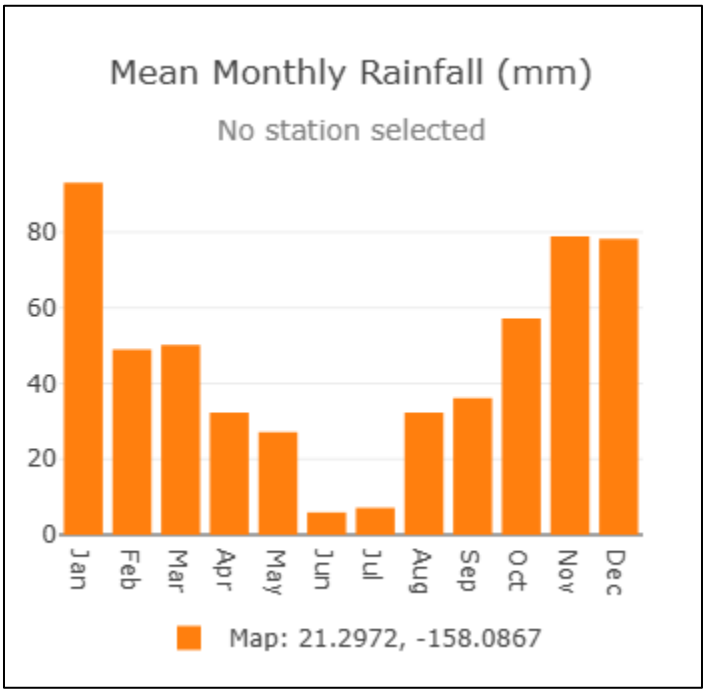


Figure 2-5. Mean annual rainfall for the KSDF project site (Rainfall Atlas, Giambelluca et al., 2013).

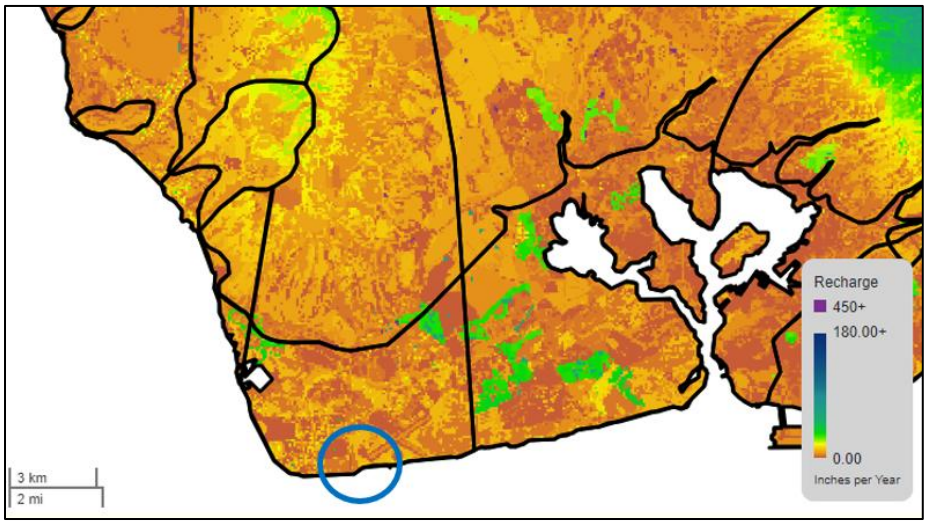


Figure 2-6. Groundwater recharge map (‘Ike Wai, 2024).

2.5 Tidal Regime

Hawai‘i experiences both short-term seasonal sea level fluctuations and long-term sea level rise trends. Seasonal variations are caused by natural factors, such as tides, seasonal thermal expansion, and El Niño-Southern Oscillation (Johnson, 2022). Short-term sea level variation can also be influenced by natural disasters, such as tsunamis, which influence sea levels both locally and globally. Long-term seal level changes are driven by climate change, leading to higher average sea levels.

Tides in Hawai‘i are mixed and not purely diurnal or semi-diurnal with two unequal high tides per day. The most extreme ranges occur near and following the solstices. The great diurnal ranges—defined as the difference between Mean Higher High Water (MHHW) and Mean Lower Low Water (MLLW)—is less than 1 meter (3.3 feet). The great diurnal range defined over the NTDE (1983-2001) is 58 cm (1.9 feet) for the Honolulu tide station (Yoon, 2021). The Honolulu tide station (Station ID: 1612340) is operated by the National Oceanic and Atmospheric Administration (NOAA) and is located in Honolulu Harbor.

It is important to note that the tidal range is not constant in time: “Tidal amplitude varies seasonally in Hawai‘i with astronomical high tides in Honolulu, for example, regularly exceeding 20 cm(0.66 feet), above MHHW during the summer months of June-August, as well as the late fall and winter months of November-January. The Highest Astronomical Tide (HAT) datum is defined as the highest predicted astronomical tide during the NTDE, which is useful as an estimate of the maximum possible contribution to water level from astronomical forcing (Yoon, 2021).

Tidal variation is an important factor when assessing groundwater levels near the coast. Groundwater levels in the caprock aquifer are more impacted by tidal fluctuations than groundwater levels in the volcanic aquifer. Groundwater level data collected from the KSDF project site wells indicate that tidal fluctuations in the caprock wells are directly related to the tide in the adjacent drainage canal.

2.6 Land-Use and Water Quality Impacts

INTERA compiled and reviewed numerous publicly available environmental technical reports, publications, and records within a 1-mile radius of the KSDF project site. Files and publications came from the DOH Hazard Evaluation and Emergency Response (HEER) system portal (iHEER Portal), DOH Safe Drinking Water Branch (SDWB), DOH Solid and Hazardous Waste Branch (SHWB) Underground Storage Tank (UST) Program, Hawaiʻi State Office of Planning, Naval Facilities Engineer Systems Command (NAVFAC), and the BWS. Note that the information presented in this section is not intended to serve as a comprehensive environmental assessment; however, an overview of land use and related water quality impacts is described in the following subsections.

2.6.1 Surrounding Land-Use

As discussed in Section 2.1, the KSDF project site is located in Kalaeloa, on the south coast of the island of Oʻahu. The KSDF project site is bordered to the north and west by vacant/undeveloped land owned by the State of Hawaiʻi Department of Agriculture Hawaiʻi Land & Livestock LLC, formerly used as the ʻEwa Feedlot. Farther north are Ōlai Street and Par Hawaii Refinery (Par Hawaii). The KSDF project site is bordered to the east by a manmade drainage canal, excavated below sea level. The canal opens to the ocean and contains seawater during normal conditions and is tidally influenced. Based on INTERA's observations, the canal appears mostly unlined; however, parts may be partially sealed with shotcrete. Beyond the canal to the east is Pearl Harbor National Wildlife Refuge and Kalaeloa Airport. The KSDF project site is bordered to the south by vacant/undeveloped land owned by Hawaiʻi Community Development Authority, beyond which is a rocky shoreline and the Pacific Ocean.

The KSFD project site is situated on the southern boundary of Campbell Industrial Park. Campbell Industrial Park is the largest industrial hub on Oʻahu, with nearly 250 commercial and industrial businesses operating out of this area. Types of businesses include, but are not limited to, petroleum processing; electric utility operations; base yards; centralized mail and packaging facilities, food manufacturing and processing; lumber and wood manufacturing; metal fabrication and supply; automotive and heavy equipment repair; truck and transportation rentals; salvage scrap, junk storage and recycling; construction material manufacturing and supply (i.e., concrete, paint, roofing materials, etc.); warehousing; waste disposal and processing; and bulk wholesale and retail establishments. The KSDF project site is also located 0.25 mile west of the former Barbers Point Naval Air Station, which is currently operating as Kalaeloa Airport. The proximity to the adjacent industrial and airport land-use has raised concerns about potential impacts to the BWS seawater source wells.

2.6.2 Previous Environmental Investigations

INTERA's review of the DOH iHEER System Portal identified all recorded contaminated sites and contamination incidents under the DOH HEER office's purview. These include sites that are considered currently active and/or sites with prior contamination that have received "no further action" determinations. **Figure 2-7** shows the locations of recorded HEER-contaminated sites within Campbell Industrial Park. These investigations were conducted in the caprock and did not include the underlying volcanic formation.

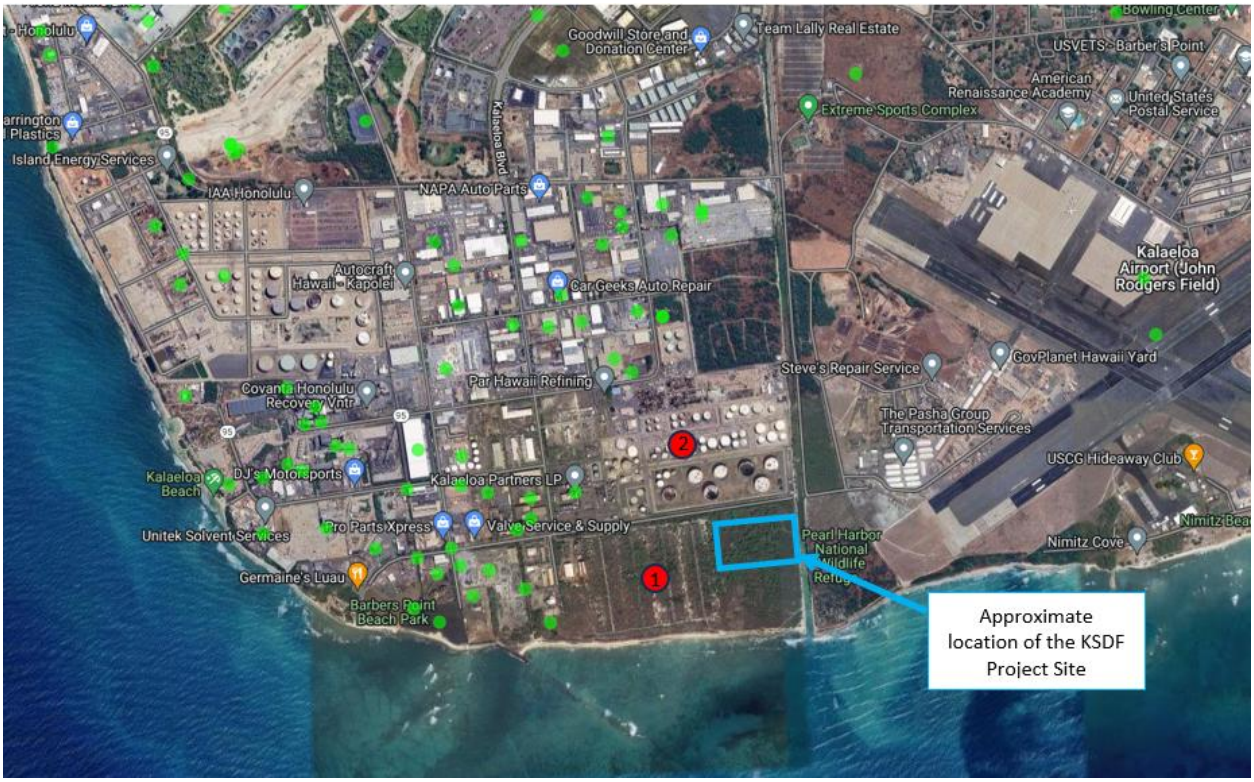


Figure 2-7. DOH HEER sites within the vicinity of the KSDF project site. The two red dots represent Site 1- ‘Ewa Feedlot and Site 2- Par Hawaii Refining.

A Phase I ESA (ETC, 2021) assessed current and/or historic environmental conditions on or around the KSDF project site. The Phase I ESA’s review of the DOH HEER database identified the Par Hawaii property and the former ‘Ewa Feedlot as potential contaminant sources in relation to the KSDF project site (shown as Site 1 and Site 2 in Figure 2-7, respectively). The Phase I identified all other HEER sites as “no further action” sites and/or sites that are considered too distant to pose a reasonable risk of impacting the KSDF project site.

The Phase I ESA identified the former ‘Ewa Feedlot as a State Hazardous Waste Site. Historic maps show that the ‘Ewa Feedlot was located adjacent to the KSDF project site; however, some documentation shows that the ‘Ewa Feedlot may also have encompassed the KSDF project site. Review of historic records indicated that the east portion of the ‘Ewa Feedlot and the KSDF project site were likely historically used by O‘ahu Sugar for sugar cultivation, and pesticides were detected in the soils on the ‘Ewa Feedlot property. Low levels of 2,4-D (an herbicide) were reportedly detected on the ‘Ewa Feedlot property in 1993. Additionally, historic records indicated that the ‘Ewa Feedlot and a portion of the KSDF project site may also have been used for bioremediation of petroleum contaminated soil. The petroleum-impacted soil stored onsite was reportedly generated during a “UNOCAL Underground Storage Tank (UST) operation” and suspected to have been stored on the east portion of the ‘Ewa Feedlot (west portion of the KSDF project site). A Phase II ESA conducted on the ‘Ewa Feedlot property in 2008 (ETC, 2008) revealed that petroleum constituents, metals, and organochlorine pesticides were

detected in surface soils and in groundwater samples within areas north and west of the KSDF project site. During the Phase II ESA, (ETC, 2008), three shallow monitoring wells were installed along Ōlai Street (MW 1, MW 2, and MW 3) and one shallow monitoring well was installed on the 'Ewa Feedlot property at the suspected location of former bioremediation activities (MW 4). The depths of the wells ranged from 19 to 20 feet bgs. It is unknown if these four wells still exist at the site (MW 1 and MW 2 in Table 2-1 are different wells from those installed in 2008). Based on these findings, ETC's 2021 Phase I ESA identified the potential presence of residual pesticide contamination associated with historic sugar cultivation, and potential presence of residual petroleum contamination from reported bioremediation activities, as Recognized Environmental Conditions (RECs) requiring further investigation. Additionally, during the Phase I ESA, ETC observed several unlabeled 55-gallon drums on the KSDF project site (stored above ground surface and buried within solution cavities). The contents of the drums were unknown, and it was indiscernible whether the drums were associated with former 'Ewa Feedlot activities. As such, ETC also flagged potential COC impacts associated with the drums were as a REC.

ETC's 2021 Phase I ESA also identified Par Hawaii (formerly Tesoro) as a COC source in relation to the KSDF project site. Par Hawaii is categorized as a Resource Conservation and Recovery Act (RCRA) Corrective Action Site and RCRA Treatment, Storage, and Disposal Facility. Par Hawaii is located approximately 300 feet north of the KSDF project site, above Ōlai Street, and comprises a 112-acre fuel farm and refinery, which produces jet fuel, gasoline, diesel, and ship fuel. Under Tesoro ownership, three open wastewater treatment ponds were used at the facility and were permanently closed in 1993. Environmental investigations at the facility discovered a large plume of free phase petroleum product, associated with Tesoro operations, in the subsurface of the facility. A 2003 corrective measures report addressing the free phase product identified the plume as light non-aqueous-phase liquid (LNAPL) primarily composed of "weathered diesel range hydrocarbons with practically no measured volatile constituents" (Metrose, 2003). Documents indicate that several shallow wells were installed at the site between 1999 and 2001 for full-scale recovery and monitoring of the LNAPL plume. The wells were installed to depths of 19 to 25 feet bgs. It is unknown if some or all of these shallow wells still exist at the site. Following remedial activities, the LNAPL was reportedly fully delineated within the facility boundaries. However, a Phase II ESA (ETC, 2008) identified petroleum contaminants along the south border of the facility (Ōlai Street), which is less than 500 feet north of the KSDF project site. Based on these findings, potential offsite petroleum and/or metals-related COC migration from the Hawai'i Independent Refinery, Inc. was identified as a REC.

The Phase II ESA was conducted in August 2022 (ETC, 2022) to investigate further the RECs identified in ETC's 2021 Phase I ESA. Two soil borings were advanced to 17 feet bgs and later converted into permanent groundwater monitoring wells, with screened interval from 7 to 17 ft bgs. These wells are identified as MW 1 and MW 2 (Table 2-1). One boring, B1/MW 1, was placed within the boundaries of the future desalination facility to conduct a limited evaluation of the soil and groundwater within the future development area. The other boring, B2/MW 2, was placed north of the KSDF project site along Ōlai Street, near the south boundary of Par Hawaii, to evaluate the potential COC migration from the facility onto the project site. Multi-incremental (MI) soil samples were collected from each boring at a depth of 4 to 7 feet bgs, and one groundwater sample was collected from each permanent monitoring well. Note that no LNAPL was observed during sampling activities. In addition to subsurface soil and

groundwater samples, ETC also collected one MI surface soil sample (i.e., top 4-inches) within an 8.6-acre Decision Unit (DU), which encompassed the entirety of the location for the future BWS desalination facility. The surface soil MI sample was intended to evaluate potential impacts from historical use of pesticides on the KSDF project site.

The subsurface soil MI samples and groundwater samples were each analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPH-G), TPH as diesel (TPH-D), TPH as oil (TPH-O), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), and total RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). The surface soil MI sample was analyzed for organochlorine pesticides and total RCRA 8 metals. The analytical results were compared to the default (lowest) DOH Environmental Action Levels (EALs) for unrestricted land use in areas where groundwater is not a current or potential drinking water source and where the nearest surface water body is less than 150 meters from the site. The laboratory results indicated that all analytes were either not detected above their respective reporting limits (RL) or method detection limits (MDLs) and/or they were below their corresponding EALs for all soil and groundwater samples.

Based on these findings, ETC (2022) concluded that the KSDF project site appears not to have been significantly impacted by potential COC migration from Par Hawaii and the former 'Ewa Feedlot facilities or by the potential presence of residual pesticides from historical sugarcane cultivation. Furthermore, ETC downgraded the previously identified RECs documented in their November 2021 Phase I ESA to *de minimis* conditions for the KSDF project site.

Although ETC's Phase II findings indicated that no COCs were detected in the soil or groundwater at the KSDF project site, sample collection was limited in terms of delineating the vertical and horizontal extent of potential COC migration via groundwater from surrounding properties. Specifically, subsurface soil and groundwater were collected from only two locations, at relatively shallow depths, and during a single sampling event. The lack of spatial coverage and limited analytical data is considered a data gap. It was determined that, to verify ETC's findings and assess groundwater quality in both the caprock aquifer and deep volcanic aquifer, additional groundwater sampling from the on-site and off-site wells is warranted.

Note that no previous environmental investigations identified Kalaeloa Airport or the former Barber's Point Naval Air Station as potential sources of contamination in relation to the KSDF project site. However, review of NAVFAC administrative records indicated potential presence of per- and polyfluoroalkyl substances (PFAS) constituents in relation to a storage and disposal area (referred to as Coral Sea Road Coral Pit), where PFAS-containing solid and liquid waste materials were identified. This area is located at the eastern-most portion of the current Kalaeloa Airport runway, approximately 2.41 miles northeast of the KSDF project site. In 2017, groundwater samples were collected within the vicinity of the former Coral Sea Road Coral Pit from three temporary monitoring wells (NAVFAC, 2018). The samples were analyzed for perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), and perfluorobutane sulfonic acid (PFBS) by United States Environmental Protection Agency (EPA) Method 537 Modified. Analytical results indicated detectable concentrations of all three constituents. The highest PFOA, PFOS, and PFBS concentrations detected were 0.0241 micrograms per liter (µg/L), 0.0133 µg/L, and 0.00605 µg/L, respectively. The PFOA and PFOS concentrations were above recently

promulgated EPA Maximum Contaminant Levels (MCLs); however, at the time of the investigation, the analytical results were compared with EPA non-promulgated federal screening criteria, which were greater than the detected concentrations. As such, NAVFAC (2018) concluded that PFAS was not contaminating the groundwater underlying the Coral Sea Road Coral Pit site.

A second site associated with the former Barber's Point Naval Air Station was also identified during records review. The former Naval Air Station Fire Station was identified as a potential source of PFAS constituents, given that PFAS-containing Aqueous Film Forming Foam (AFFF) was likely used for firefighting and fire training exercises. A 2021 preliminary site assessment of the former Naval Air Station Fire Station recommended further soil and/or groundwater assessment (NAVFAC, 2021). The former Naval Air Station Fire Station is located approximately 1.5 miles northeast of the KSDF project site.

2.6.3 Other Water Quality Investigations

Water quality sampling was performed at the KSDF project site source wells in 2001, 2002, 2003, and 2018. The analytical results from historical water quality sampling are available upon request. A summary of events is below.

- In October 2001, the BWS tested and sampled the newly constructed caprock well (Well 14) (AECOS, 2001).
- In March 2002, the BWS tested and collected a sample from Well 13 (AECOS, 2002). The sample was labeled "Caprock" in the laboratory report, suggesting it was from Well 14, whereas field notes only indicate samples collected from Well 13 on that date. INTERA's review of available records, including original laboratory reports and field notes, was inconclusive as to whether this sample was from Well 13 or Well 14. It has been tentatively attributed to Well 13.
- In March 2003, Mink & Yuen Inc. published a report that included water quality data from what is assumed to be Well 13, given that Well 15 had not been constructed yet (Mink & Yuen, 2003). In Mink & Yuen's report, the well is referred to "Basalt Well," and the date in which the samples were taken is unidentified.
- From June to October 2003, Oceanit was contracted to perform a desalination pilot test at the KSDF project site, which included water quality sampling of Well 13 prior to treatment. Water quality samples were collected from Well 13 in June 2003 (AECOS, 2003).
- In 2018, Well 13 was sampled again by Element Environmental. Samples were taken following 8 hours and 12 hours of well purging on three consecutive days (Element Environmental, 2018).

Given the above information, there is uncertainty with the 2001 to 2002 water quality sample data (e.g., possible mislabeling of samples, unknown dates, inadequate Quality Assurance/Quality Control [QA/QC] information). Furthermore, there are no known historical water quality data for Well 15.

2.6.4 Injection Wells and Onsite Disposal Systems

Injection wells in Hawai'i are used for disposal of storm runoff, industrial effluent, sewage, and other substances. Injection wells are generally shallow, injecting water and waste into the vadose zone or

upper saturated zone. The fluid injected into these wells may introduce chemicals and/or microbiological contaminants into the surrounding groundwater, which may adversely affect potable water resources and ecological health.

Similarly, onsite disposal systems (OSDSs), which are small wastewater systems, are common in Hawai'i. Most OSDSs in Hawai'i are cesspools (Class IV OSDS), which discharge more nutrients into the subsurface than other OSDSs. Kalaeloa is not connected to the City and County's municipal sewer system; therefore, OSDSs are more prevalent in this area. **Figure 2-8** and **Figure 2-9** show the locations of registered injection wells and OSDSs near the KSDF project site, respectively. Note that some mapped OSDSs are incorrectly geolocated. For example, despite what is shown on the map, there are no known OSDSs within the adjacent drainage channel. Further discussion of injection well and OSDSs are provided in the following subsections.

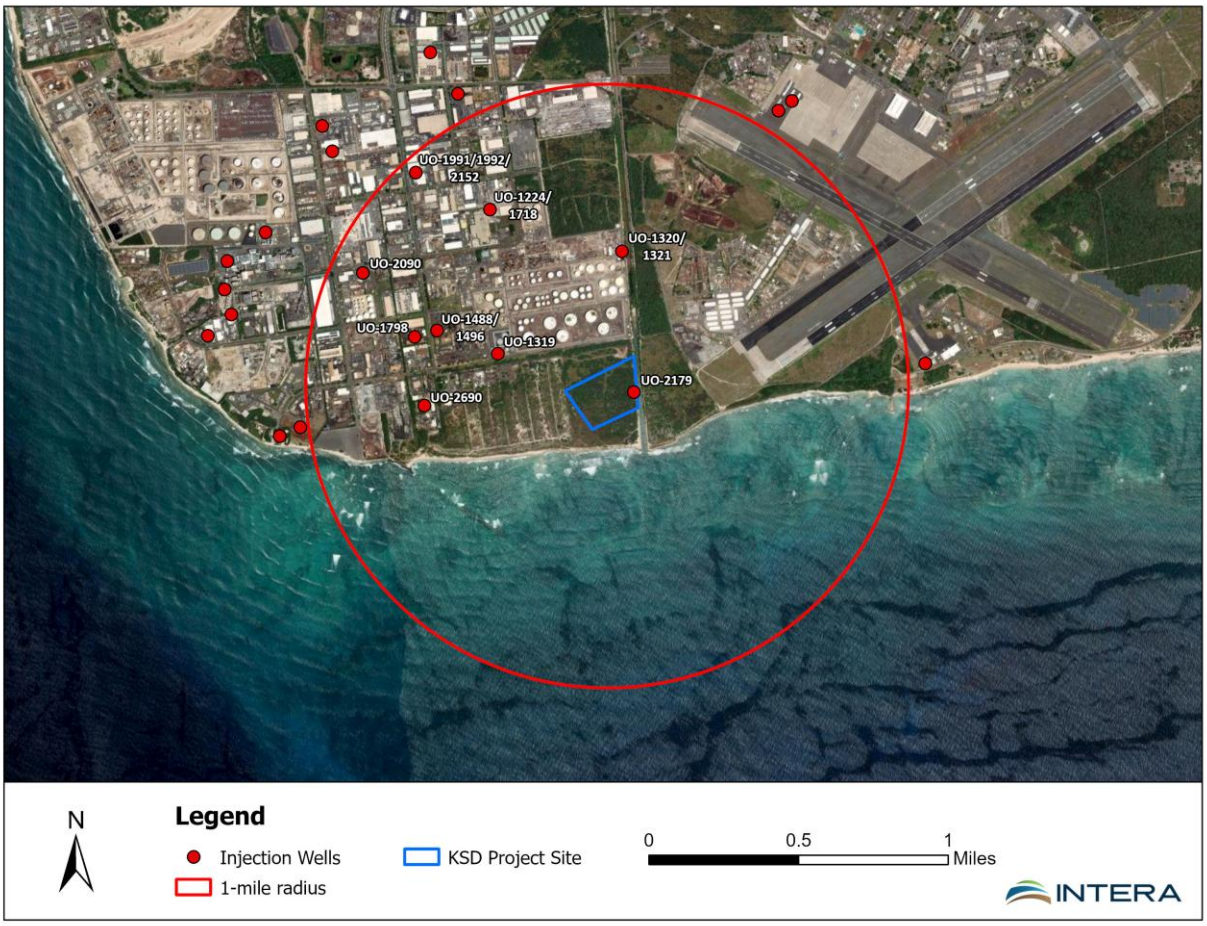


Figure 2-8. Location of injection wells within the vicinity of the KSDF project site.

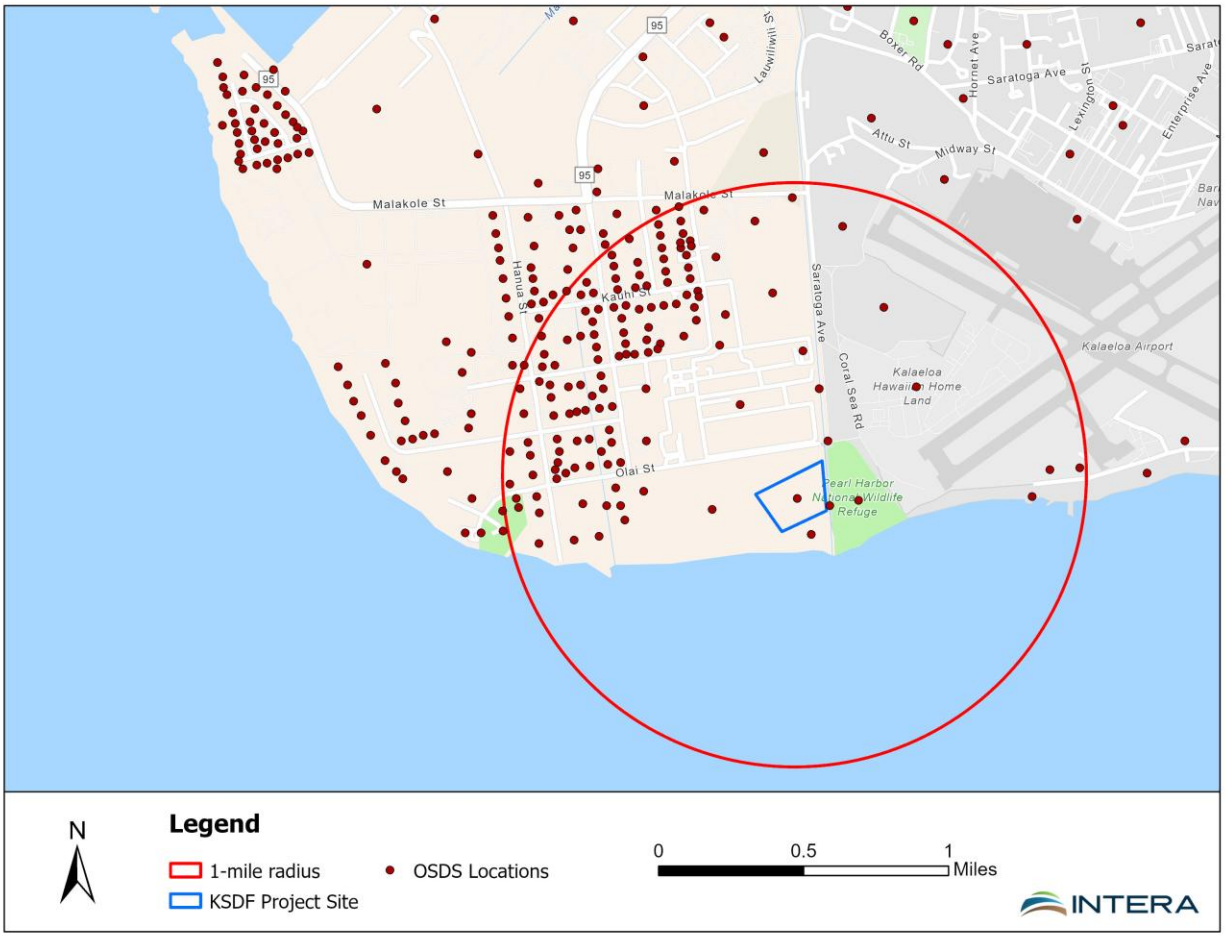


Figure 2-9. Location of onsite disposal systems (OSDSs) within the vicinity of the project site.

2.6.4.1 Injection Well Discussion

According to DOH SDWB environmental portal, there are 14 mapped injection wells within a 1-mile radius of the KSDF project site. INTERA received public records on the UIC wells from DOH SDWB UIC Program on April 10, 2024. The information obtained from the DOH SDWB environmental portal and UIC Program public records is provided in **Table 2-4.**

Table 2-4. Injection wells within a 1-mile radius of the KSDF project site.

Operator/ Underground Injection Control (UIC) Permit ID	Maximum Permitted Flow	Permitted Discharge Type	Water Quality Data	Approximate Injection Interval (feet bgs)	Geologic Log Exist?	Approximate Distance from KSDF Project Site
BWS Kalaeloa UO-2179 (Well 14)	Inactive. Currently no flow.	Industrial: Desalination byproduct	Analytical data of injectant sampling was collected by Oceanit during 2003 pilot testing.	Well No. 1: 50-300 feet bgs	No	On the KSDF project site 21.29858, -158.086958
Par Hawaii Refining/Kapolei Refinery/Hawaii Independent Energy UO-1319 (Wells Nos. 3 and 4)	Both wells (Well Nos. 3 and 4): 625 gallons per minute (gpm)	Industrial: Wastewater from on-site and off-site sources (i.e., processed units wastewater, stormwater runoff, fire water runoff, remediation groundwater, Par Hawaii Terminal Facilities process water, etc.)	March 2023 analytical results from Par Hawaii Quarterly UIC sampling of effluent injectant revealed concentrations of TPH-G (C6-C12) at 0.021 mg/L, TPH-O (>C28-C40) at 4.2 mg/L, and TPH-D (C10-C28) at 4.7 mg/L. RCRA 8 heavy metals were also detected at low concentrations.	Well No. 3: 170-230 feet bgs Well No. 4: 170-230 feet bgs	Yes - boring Log of Well No. 4. None for Well No. 3.	0.39 mile northwest 21.300495, -158.094016
Synthetic Natural Gas (SNG) Plant/ Hawai'i Gas UO-1320 (Industrial Well No. 1) UO-1321 (Well No. 1)	Industrial Well No. 1: 66,500 gallons per day (gpd). Well No. 1 - Storm water runoff: 232,658 gpd	Stormwater runoff and Industrial: wastewater (batch discharged demineralized regeneration effluent from facility processing).	The SNG Plant, Hawai'i Gas collected from two points: Boiler Blowdown, which is industrial wastewater, and Neutralizing Pit, which is a combination of industrial wastewater and stormwater. The most recent available analytical data are from October 2023. Field and laboratory analytical results for Type I, Type III, and Type IV sampling were reported below regulatory levels identified within the permits.	Industrial Well No. 1: 40 - 125 feet bgs Well No. 1: 42 - 125 feet bgs	Yes	0.37 mile north 21.30541, -158.087549

Operator/ Underground Injection Control (UIC) Permit ID	Maximum Permitted Flow	Permitted Discharge Type	Water Quality Data	Approximate Injection Interval (feet bgs)	Geologic Log Exist?	Approximate Distance from KSDF Project Site
Kalaeloa Congregation Power Plant/ Kalaeloa Partners UO-1488 (Abandoned, UIC file terminated 10/1991) UO-1496 (Well Nos. 1 and 2)	Both wells (Well Nos 1 and 2): 700 gpm	Industrial: Wastewater from electrical facility processing (cooling tower blowdown, treated boiler wash water, neutralization tank wastewater, etc.)	The most recent available analytical data are from 2018. Field and laboratory analytical results, for Type I, Type III, and Type IV sampling were reported below regulatory levels identified within the permits.	Well No. 1: 220-399.6 feet bgs Well No. 2: -220-399 feet bgs	No	0.60 mile northwest 21.301629, -158.097146
Macsteel Service Centers USA UO-1798 (UIC permit closed 3/30/2006)	Closed	Industrial	N/A	N/A	No	0.68 mile northwest 21.301334, -158.098304
Grove Farms Hatchery UO-2690 (2009 application submitted, and ATC approved; however, no UIC permit was issued)	Wells were not drilled.	N/A	N/A	N/A	N/A	0.65 mile west 21.29799, -158.097825

Operator/ Underground Injection Control (UIC) Permit ID	Maximum Permitted Flow	Permitted Discharge Type	Water Quality Data	Approximate Injection Interval (feet bgs)	Geologic Log Exist?	Approximate Distance from KSDF Project Site
Ball Metal Beverage Corporation UO-1224 (Well Nos. 1 – 3) UO-1718 (Well Nos. 1-5)	For UO-1224 wells (Well Nos 1-3): 59,000 gpd For UO-1718 wells (Well Nos 1-5): 2,277 gpm at peak flow conditions	UO-1224 Industrial: Treated industrial wastewater from aluminum can manufacturing operations, including can washing, equipment washdown, etc. UO-1718: Storm Runoff	Review of the most recent compliance sampling indicated that copper was detected at elevated concentrations in 2021, 2022, and 2023. Zinc was also detected at an elevated concentration in 2022.	Well No. 1: 169 – 259 feet bgs. Well No. 2: 161 – 259 feet bgs. Well No. 3: 162 – 259 feet bgs Stormwater drywells Nos. 1 through 5: 0 - 16 feet bgs	Yes – boring log for UO-1224 (Well Nos. 1-3) None for UI-1718 (Well Nos. 1-5)	0.67 mile northwest 21.307483, -158.094362
Air Liquide America Corporation/Mathers on Tri-Gas UO-2090	Well No. 1: 50,000 gpd	Industrial: Cooling tower blowdown, runoff, hydrostatic test water, and other operational wastewater.	The most recent available analytical reports indicated that injection well samples collected in December 2022 detected chromium, copper, and zinc, slightly above DOH EALs.	Well No. 1: 202-300 feet bgs	Yes	0.92 mile northwest 21.304432, -158.100979
Coca-Cola USA, Honolulu Syrup Plant UO-1991 (Well No. 1) UO-1992 (terminated permit) UO-2152 (IW abandoned in 1993. IW closed.)	Well No. 1: 50,000 gpd	Industrial: Potable water treatment process wastewater from dechlorination and RO filtration system, and process washing and facility cleaning wastewater. Sewage: Sewage	No water quality data available for review.	Well No. 1: 3. 5-16.5 feet bgs	No	0.93 miles northwest 21.30929, -158.098203

2.6.4.2 OSDS Discussion

An OSDS inventory on Oʻahu occurred in 2009 (Whittier and El-Kadi, 2009) to assess human and environmental risks associated with OSDSs and quantify the number of OSDSs within various regions across the island. The study found that a total of 14,606 OSDSs on Oʻahu. Of that total, 1,373 OSDSs were recorded in the ʻEwa Plain. Kalaeloa occupies the southwest portion of the ʻEwa Plain and accounts for a large portion of the total OSDS in ʻEwa. **Table 2-5** shows the OSDS data for ʻEwa.

Table 2-5. OSDS impacts in the ʻEwa Plain (Whittier and El-Kadi, 2009).

Town	Total OSDS	Total Effluent (mgd)	Total Nitrogen (kg/day)	Total Phosphorus (kg/day)	OSDS Density (units/mi^2)
ʻEwa	1,373	0.870	181.5	51.4	18.8

Whittier and El-Kadi (2009) used groundwater models to assess the impact of OSDS on groundwater and surface water. Simulated concentration of OSDS-derived nitrate in groundwater found the Kalaeloa nitrate concentrations were predicted to range from 1.0 to 3.5 mg/L (**Figure 2-10**). For reference, the EPA drinking water MCL for NO3-N is 10 mg/L (40 CFR 141). According to the reported simulation results, there is potential for OSDS impacts on groundwater at the KSDF project site, particularly at relatively shallow depths.

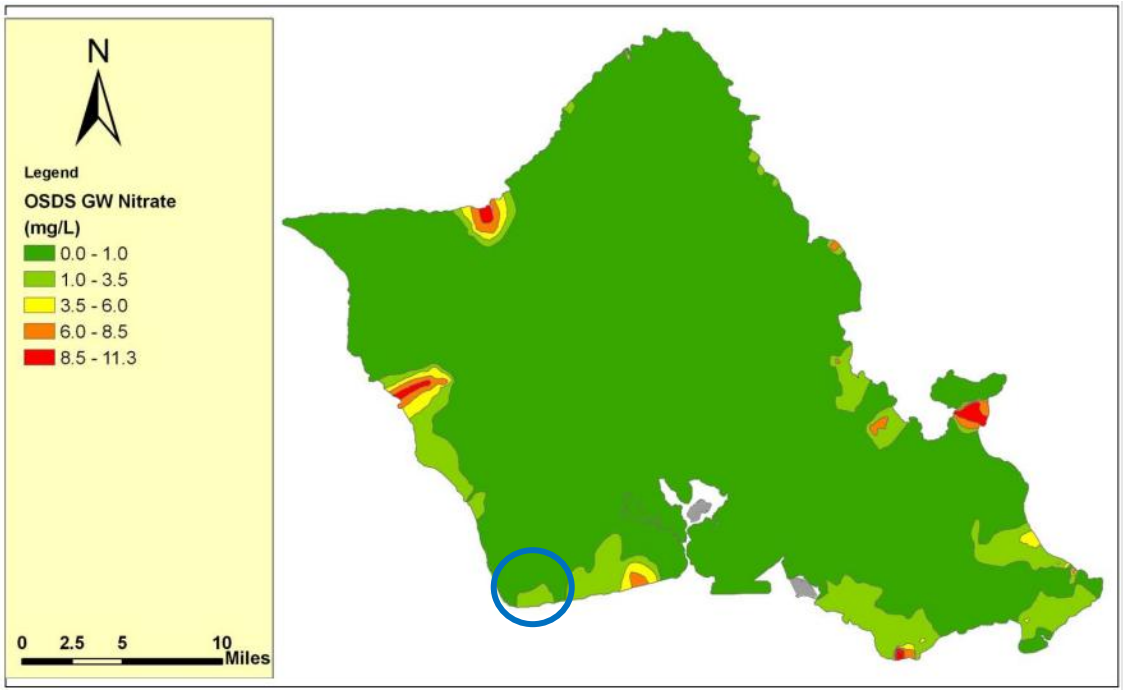


Figure 2-10. Simulated concentration of OSDS-Derived Nitrate in Groundwater on Oʻahu (modified from Whittier and El-Kadi, 2009).

2.6.5 Underground Storage Tanks

The UST Program maintains a listing of all reported leaks and releases from USTs. The KSDF project site was not identified as a leaking underground storage tank (LUST) facility. However, the listing search identified eight LUST facilities within a 0.5-mile radius of the KSDF site. Based on INTERA's file review, all eight LUST facilities were identified as "no further action" sites and/or are considered too distant to pose a reasonable risk of impacting the KSDF project site. Additionally, there are no known active USTs identified on the KSDF project site or within a 1-mile radius of the KSDF project site (DOH-UST Program, 2018).

2.6.6 Stormwater Drainage

Figure 2-11 shows stormwater drainage within the vicinity of the KSDF project site. The majority of Campbell Industrial Park is connected to the City and County's Municipal Separate Storm Sewer System (MS4). Surface drainage inlets and catch basins are situated along main roadways, with one outfall in the adjacent drainage canal and two outfalls at Barbers Points Beach Park. There are a handful of private stormwater drainage structures within the industrial park; however, these systems are small and are not anticipated to have significant contaminant impacts to the caprock aquifer.

The KSDF project site and properties directly north (i.e., Par Hawaii and Kalaeloa Partners) appear unconnected to the MS4; however, Par Hawaii and Kalaeloa Partners dispose of stormwater via injection wells. Most stormwater runoff likely occurs as sheet flows across paved and unpaved surfaces. This runoff is likely directed toward natural or manmade low-lying areas, where it will either evaporate or infiltrate into the ground surface. During heavy rains, stormwater may also flow into the adjacent drainage channel. There is potential for surface runoff to be impacted by contamination associated with industrial activities (e.g., petroleum constituents and heavy metals). Kalaeloa is dry throughout most of the year, but heavy storms during the winter months can result in stormwater flows with higher COC concentrations. Considering that groundwater at the KSDF project site is relatively shallow (approximately 10 feet bgs), groundwater impacts from contaminated stormwater infiltration are possible. Note that there are no known analytical data for stormwater/surface water samples within this area.

Figure 2-11. Kalaeloa stormwater system map (City and County of Honolulu, 2021).

3.0 Hydrogeologic Setting

An island-wide desktop review of publicly available data, historic records, and past studies was prepared to characterize geologic, hydrogeologic, water quality, and geochemical information pertaining to the KSDF project site. The following section summarizes the findings from the desktop review. Note that this section is intended to serve as general background information and excludes recently obtained site-specific data from the BWS' Field Investigation. A conceptual site model (CSM), which is designed to characterize the hydrogeologic framework, geochemistry, and groundwater-flow system of the caprock and underlying volcanic aquifer—including recently obtained hydrogeologic data obtained during the Field Investigation—is presented in **Section 9.0**.

3.1 Geology

Oʻahu is a volcanic island associated with the Hawaiian-Emperor seamount chain, which is a line of islands and seamounts extending from the Kamaʻehuakanaloa (previously called the Lōʻihi) seamount off the southeast coast of the Hawaiʻi Island to the edge of the Aleutian trench off the coast of the Kamchatka peninsula (**Figure 3-1**). The chain of islands and seamounts are created by movement of the Pacific tectonic plate over the Hawaiian hotspot, with heat from the rising mantle plume causing volcanism and the generation of shield volcanoes in oceanic crust. The volcanic geology of Oʻahu is therefore dominated by mafic igneous rocks associated with hotspot volcanism. Since the end of the last Koʻolau subaerial eruptions and lava emplacement on Oʻahu about 1.8 million years ago (MA), the island has moved off the hotspot and subsided over 6,000 feet, resulting in extensive erosion and deposition of marine and transitional sediments and sedimentary rock, referred to as caprock, along the island margins (Hunt, 1996). **Figure 3-2** shows the general distribution of volcanic units and sedimentary caprock throughout the island.

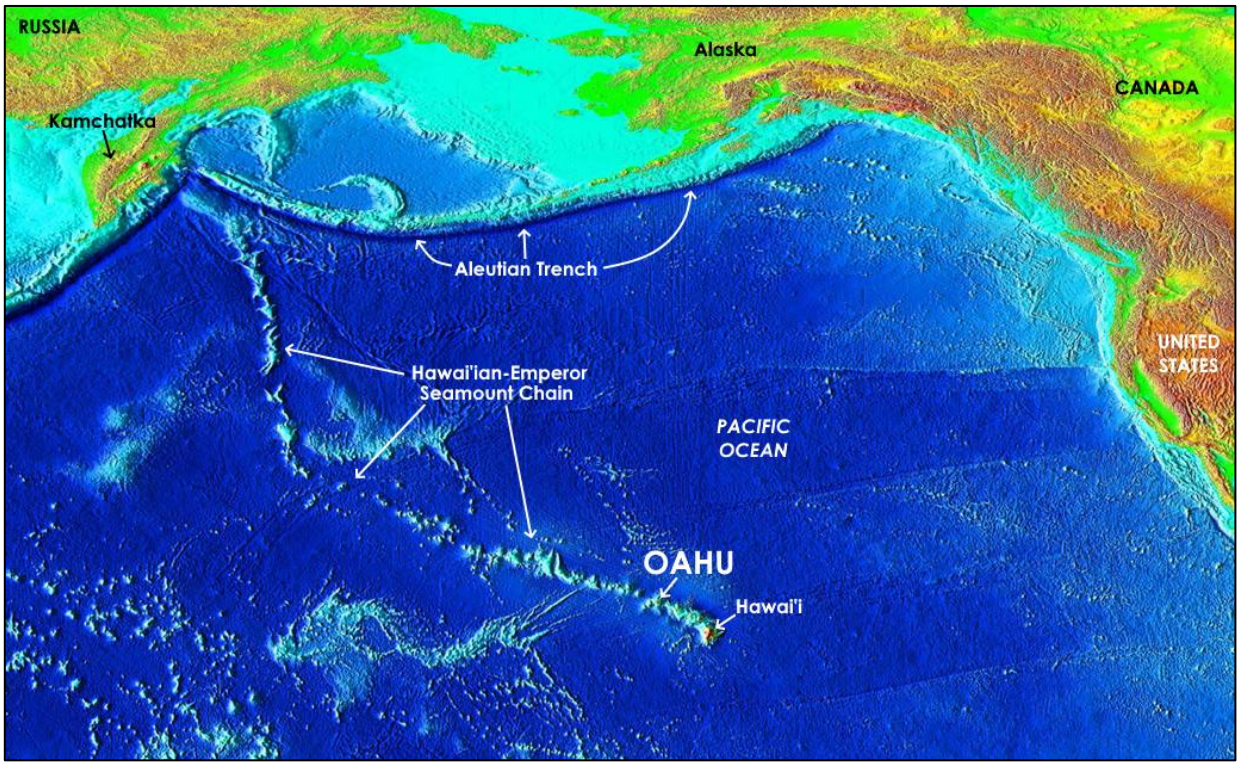


Figure 3-1. Map of north Pacific Ocean seafloor showing O'ahu relative to the Hawaiian-Emperor seamount chain.

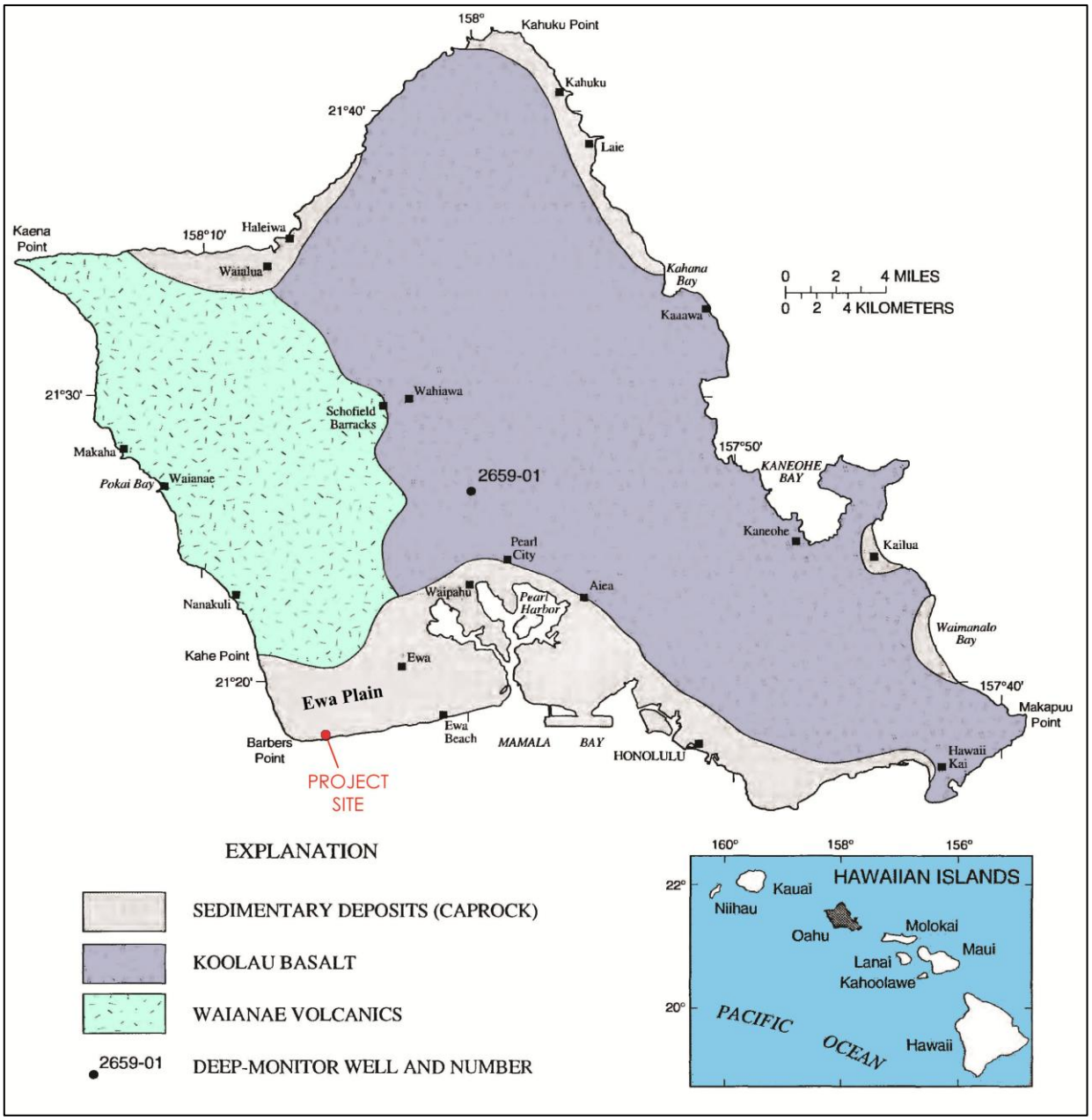


Figure 3-2. Map of O'ahu showing the KSDF project site and the general distribution of geologic formations.

The KSDF project site is located on the 'Ewa Plain about 1,500 feet from the coast (Figure 3-2). Figure 3-3 is a geologic map showing the surface geology throughout the project area, including the reef limestones of the caprock and the southernmost extent of the inactive shield volcanoes that make up the core of the island. The following subsections contain more details about the regional geology of the island and the local hydrostratigraphy relevant to the project site.

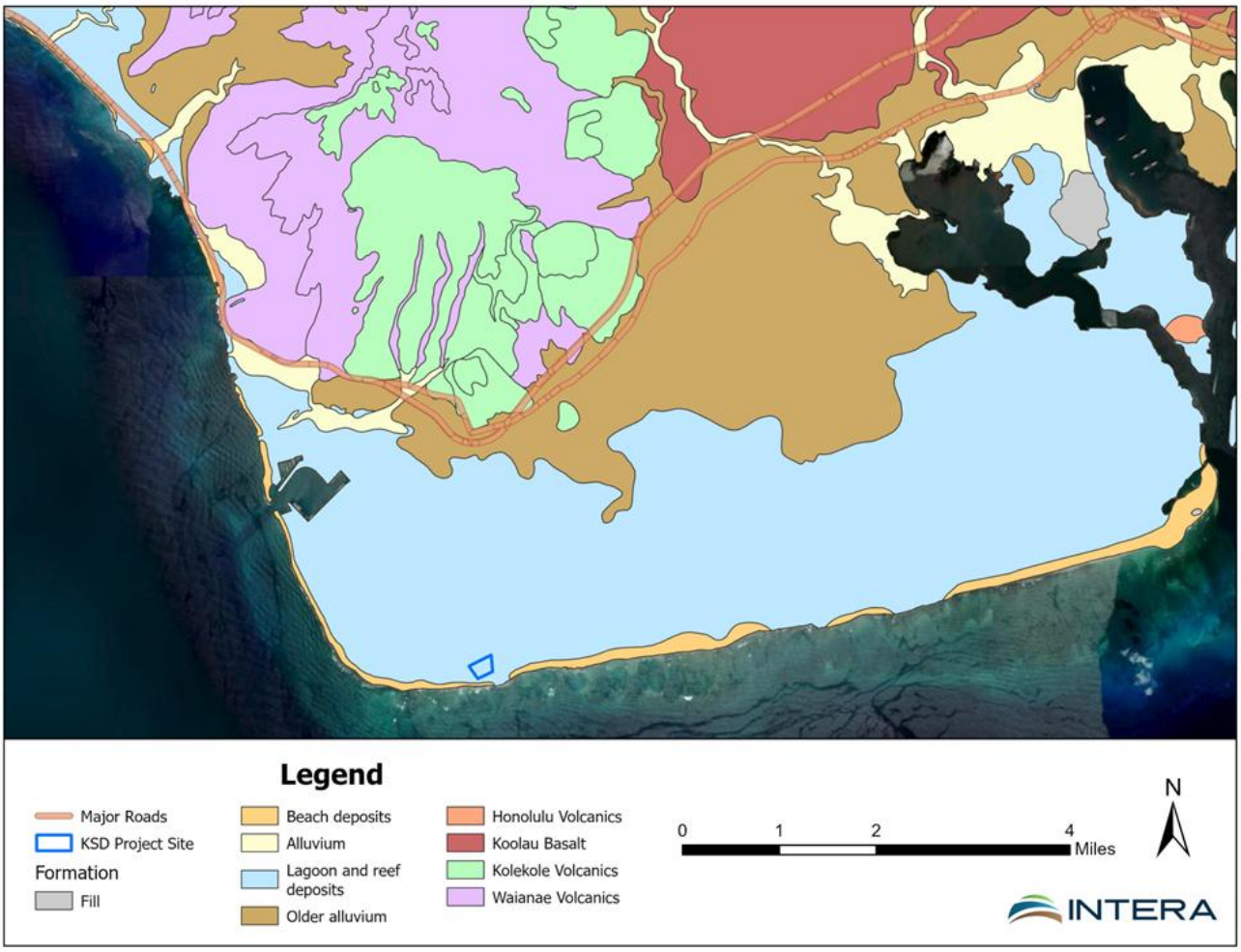


Figure 3-3. Local surficial geology of the ʻEwa Plain.

3.1.1 Regional Geology

Oʻahu is formed from two coalesced shield volcanoes. The Koʻolau Volcano is to the east, and the Waiʻanae Volcano is to the west (**Figure 3-4**). Subaerial eruptions for each occurred between 3.9 and 2.5 MA for the Waiʻanae and 2.6 to 1.8 MA for the Koʻolau (Hunt, 1996). Koʻolau and Waiʻanae lavas outside of the main calderas are primarily interbedded subaerial lava flows with high permeability associated with conduits as well as intergranular and fracture-related porosity. Due to subsidence following the end of volcanism, much of the subaerial extrusive basalts are now well below sea level. Previous modeling studies have identified and assumed permeability anisotropy in the subaerial basalt flows with the maximum permeability parallel to the lava flow directions, intermediate permeability perpendicular to lava flow in the horizontal plane, and the minimum permeability in the vertical (Oki, 2005).

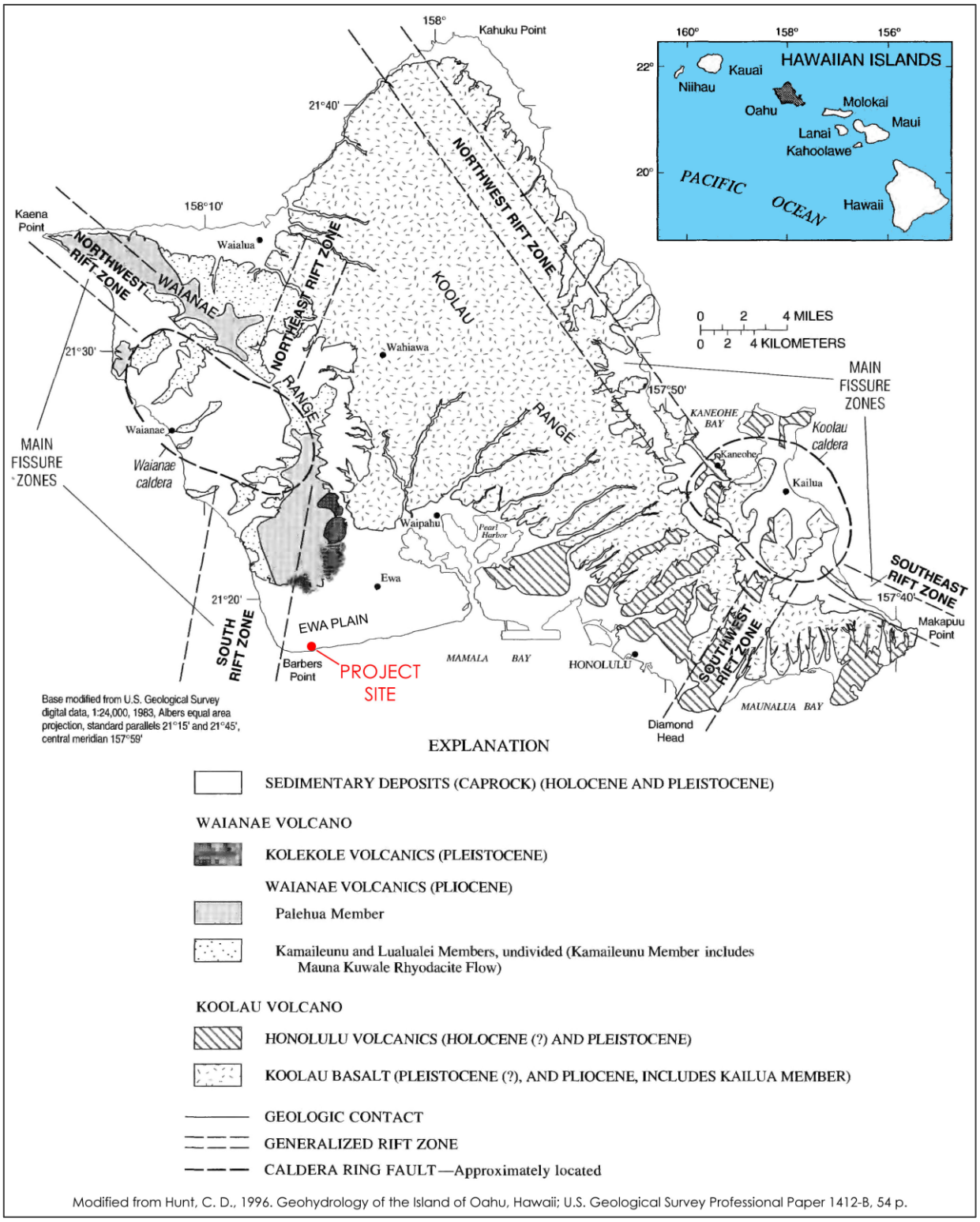
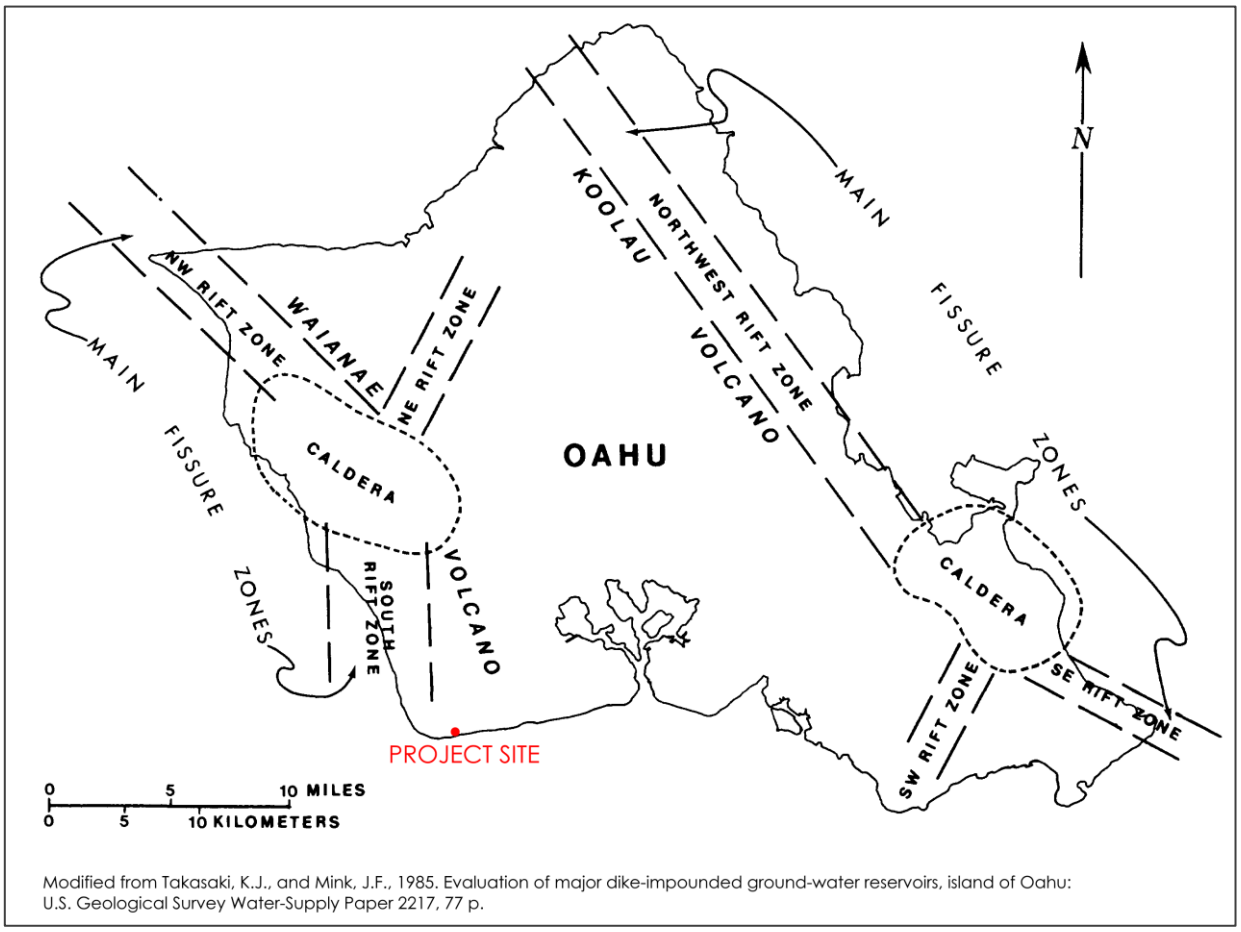


Figure 3-4. Map of surficial geology on O'ahu.

The subaerial volcanic and sedimentary rocks of Oʻahu are divisible into four main groups: lava flows (ʻaʻā and pāhoehoe), pyroclastic deposits, dikes, and sedimentary deposits. ʻAʻā flows contain a solid central core between gravelly clinker layers. Pāhoehoe flows are typically characterized by a smooth, ropy texture. Thin-bedded lava flows typically form highly permeable aquifers. Thick-ponded flows are less permeable and can impede groundwater flow. Even more impermeable to groundwater flow are dikes, which are tabular, vertical, or sub-vertical lava intrusions that function as groundwater "dams." Pyroclastic deposits originate from explosive volcanism and form tuff and ash beds (Wentworth and MacDonald, 1953).

Vertical to sub-vertical basalt dikes that intruded through the lava flows have been observed and mapped at various locations on the island. The basalt dikes have much lower permeability than the host basalt lava flows and can result in reduced overall permeability of the aquifer where frequency of occurrence is high. Dikes occur with the highest density within the centers of the major rift zones associated with the Waiʻanae and Koʻolau caldera but are rare to non-existent outside of the rift zones (Takasaki and Mink, 1985). The general project site area is located outside of the nearest rift zone (**Figure 3-5**), and dikes are unexpected to be present in the basalt at the project site.



Modified from Takasaki, K.J., and Mink, J.F., 1985. Evaluation of major dike-impounded ground-water reservoirs, island of Oahu: U.S. Geological Survey Water-Supply Paper 2217, 77 p.

Figure 3-5. Map of Oʻahu showing the KSDF project site relative to the caldera and major rift zones.

Each volcano has experienced extensive erosion and subsidence since the end of major volcanic activity on the island. The end of extensive volcanism and the associated subsidence and erosion led to the deposition of sedimentary caprock formations along the margins of the island, with the most extensive deposits along the southern coast of the island. The caprock is composed of lagoonal mud, clastic sediments, and shallow marine reef limestones. The carbonate units tend to have high permeabilities, while lagoonal muds are typically low permeability (Stearns and Vaksvik, 1935; Yuen & Associates, 1989) Figure 3-3 and Figure 3-4 show the extent of the caprock relative to the volcanics, older alluvial sediments, and current beach sands. As indicated in Figure 3-3, the surficial expression of the caprock is primarily reef carbonates. The permeable reef limestones are the target zone for the proposed injection wells at the KSDF project site.

3.1.2 Local Geology and Hydrostratigraphy

There are two primary hydrostratigraphic units (HSUs) in the subsurface at the KSDF project site. The uppermost HSU is caprock. The caprock at the KSDF site is composed of massive reef carbonates with alternating low permeability mud intervals and a low permeability unit of marine mud and saprolite at the contact with the underlying volcanic aquifer. The lower HSU is the Wai‘anae volcanic formation. Details of each HSU are presented in the following subsections.

3.1.2.1 Caprock

The caprock is a sedimentary sequence of reef limestones and marine and lagoonal muds that reflect historic changes in sea level, primarily associated with subsidence, and the resulting changes in depositional environments along the coastline. Well 14 is completed in the caprock at a depth of 300 feet bgs, or ~288 feet below sea level (bsl). The well is cased to a depth of 50 feet bgs and is open to the formation from 50-300 feet bgs. The total depth of the caprock at the site, based on field notes and temperature logs from the existing Wells 13 and 15 completed in the underlying volcanics (**Figure 3-6**), is 1,040 feet bgs (-1,026 feet msl).

On a regional basis, the caprock hydrostratigraphy is typically sub-divided into multiple permeable aquifer units with at least two intervening low-permeability mud layers. Several previous studies, including the cross-sections (**Figure 3-7**) by Oki et al. (1996), indicate that there is a layer of low-permeability clay at the base of the caprock that hydraulically separates the caprock from the underlying volcanics. The thickness of this clay layer at the ‘Ewa 1 (T133) well (referred to as 1959-05 on Figure 3-7), which is located approximately 6 miles east of the KSDF project site, is approximately 250 feet. The clay layer at the base of the caprock is likely some combination of weathered basalt (saprolite) and lagoonal muds.

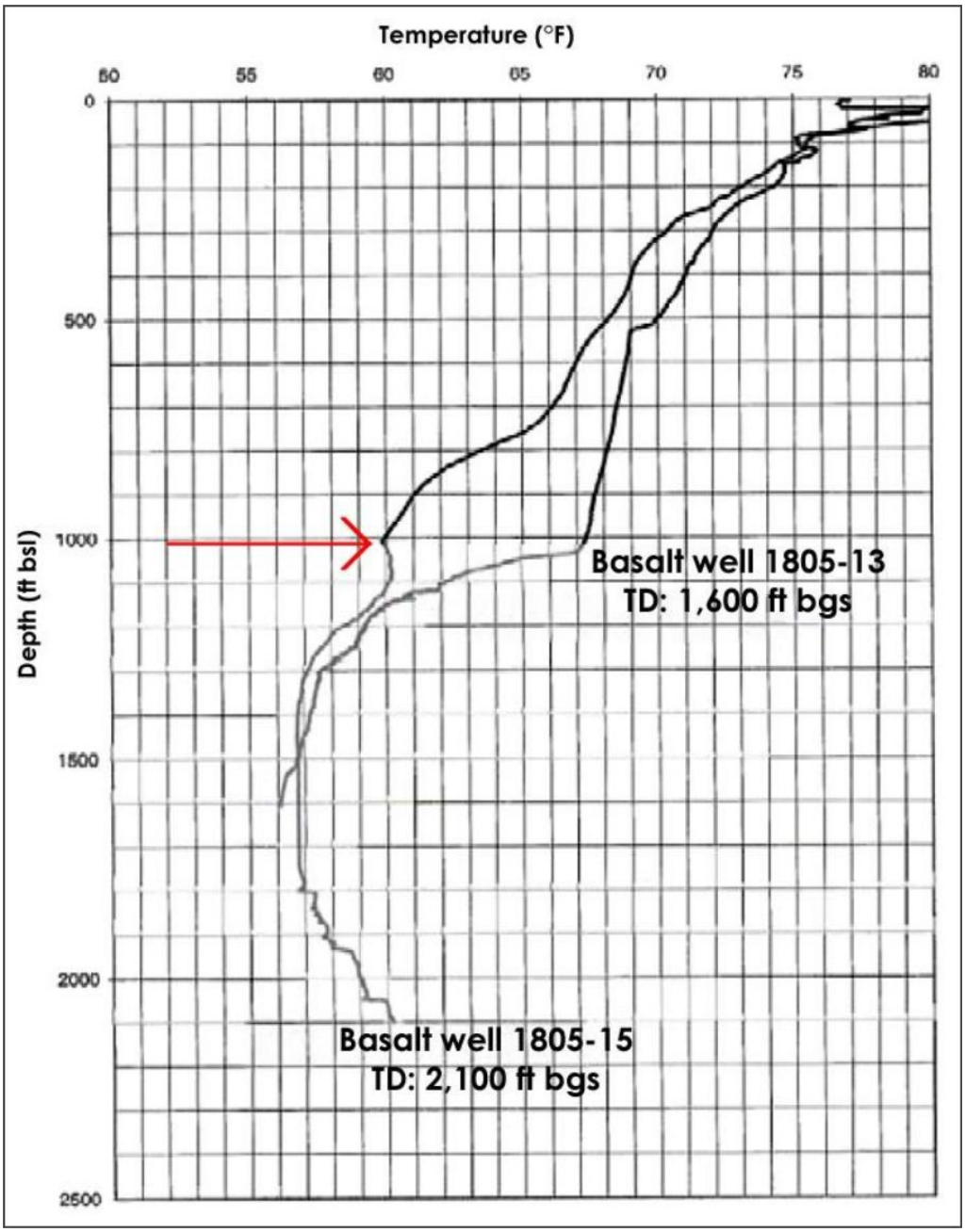


Figure 3-6. Temperature profiles in the volcanic production wells at the KSDF project site completed between 2001 and 2003 (modified from BWS, 2019).

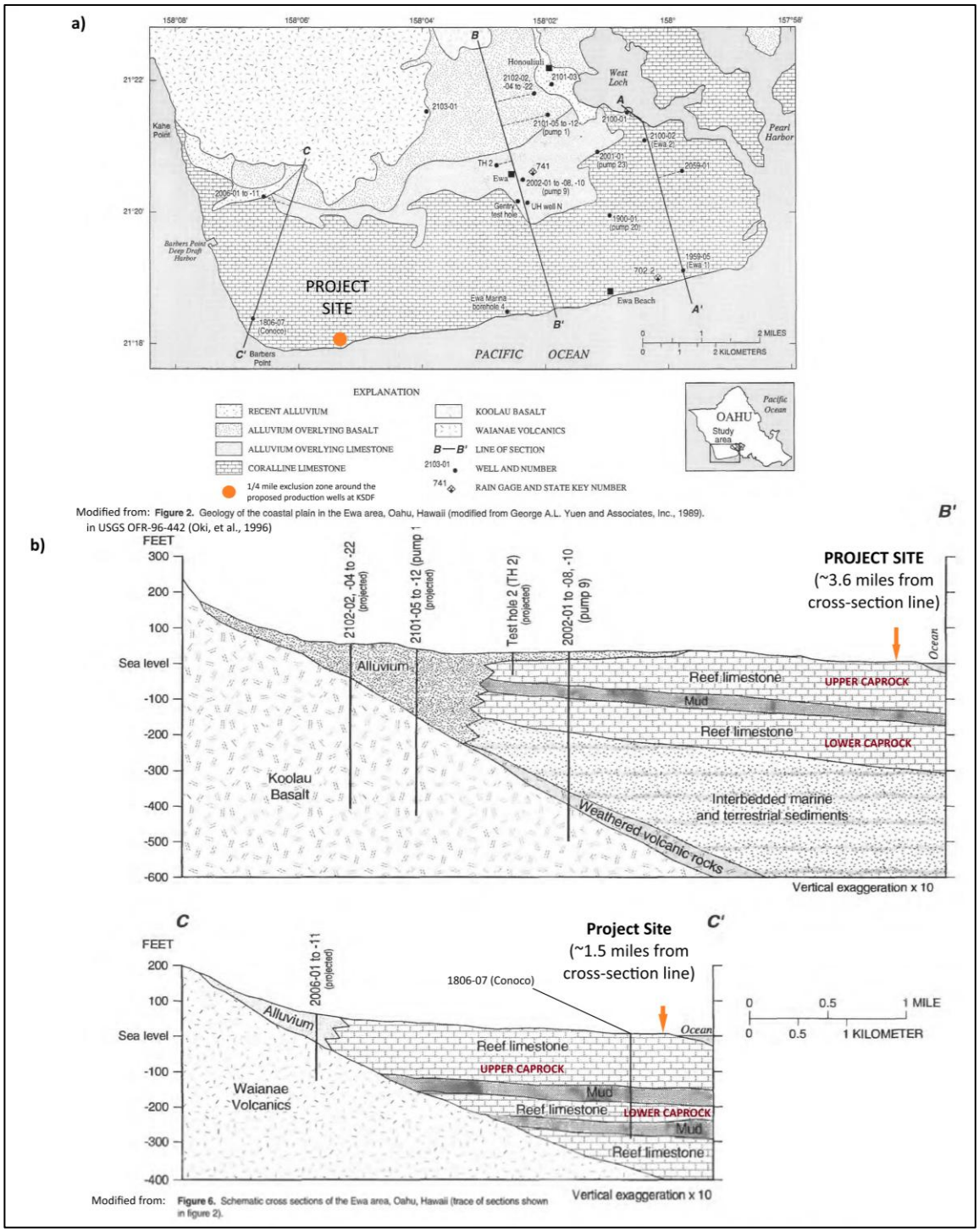


Figure 3-7. Cross-sections of geology near KSDF Site, showing low-permeability class base (modified from Oki et al., 1996).

Dames and Moore (1986) identified three coralline aquifers and at least two sedimentary aquicludes in the upper 300 feet of caprock. The uppermost aquiclude is considered to be a distinct unit that exists "everywhere in the 'Ewa Plain caprock" and in the west (near Kalaeloa), "…appears to consist of calcareous (limy) silt near the coast…" Dames and Moore (1986) also wrote that the lower aquifers "are generally thinner and tend to have increasing silt content with distance inland. The logs suggest a depositional environment ranging from a barrier reef near the present coastline to lagoonal conditions further inland." A cross-section about 2,000 feet north of the KSDF project site identified two mud layers approximately 30 to 50 feet thick in the upper 300 feet of caprock.

John Mink (Yuen & Associates, 1989) identified two aquifers in the 'Ewa Plain caprock. He divided the uppermost 300 feet of the 'Ewa Caprock into the "upper aquifer" or "upper caprock" and the "lower aquifer" or "lower caprock," and found that they were separated by a terrestrial mud aquiclude. These terms have become widely used. Groundwater in the upper caprock aquifer is considered unconfined (Bauer, 1996). The groundwater flow system in the lower caprock is considered confined or semi-confined (Bauer, 1996). At the KSDF project site, geophysical data indicate that the upper caprock extends from 0 to about 120 feet bgs, and the lower caprock extends from about 180 feet to 380 feet bgs (refer to **Section 6.0**). No differentiation has been made for the remainder of the caprock, between 380 feet bgs and the volcanic basement. This portion consists of an alternating sequence of marine and alluvial deposits (Yuen & Associates, 1989). The lower caprock aquifer, although saline, is differentiated because it has been employed as a source of cooling water and for injection (e.g., see Table 2-4 and Table 3-4).

There were no available wells on or in the vicinity of KSDF open only to the lower caprock. Three onsite caprock wells were available: MW 1 and MW 2 in the shallow caprock and Well 14 penetrating both Mink's upper and lower caprock aquifers.

3.1.2.2 Waiʻanae Volcanics

The Waiʻanae Volcano is divided into the older Waiʻanae Volcanics and the younger Kolekole Volcanics (Langenheim and Clague 1987). The Waiʻanae Volcanics are further divided into the Lualualei, Kamaileʻunu and P lehua Members. The Lualualei Member consists of tholeiitic shield stage basalt and likely is the member underlying the KSDF. The Kamaileʻunu Member is found in the caldera to the west of KSDF, and the P lehua Member consists mainly of hawaiite and is found west of the KSDF project site. The Kolekole Volcanics consist of puʻu (cones) found on the southwest side of the island. The shield-stage Lualualei member erupted from three rift zones, with the south rift zone found closest to the KSDF (Figure 3-5). The Waiʻanae Volcanics are sometimes referred to as basalt in this report.

The Waiʻanae Volcanics are composed of lava flows, intrusive dikes, and interbedded volcano-clastics that comprise the main aquifers of west and southwestern Oʻahu. The aquifer lithology at the project site is primarily lava flows with no intrusive dikes. Radiometric dating indicates that these basalts were emplaced about 4 to 2.5 MA. The basalt lava flows generally dip at angles ranging from 4° to 14° (Stearns and Vaksvik, 1935; Hunt, 1996). Lava flow directions, which likely control anisotropy in the basalts, are generally makai (i.e., seaward).

The two existing production wells are completed into the basalt at the site. Well 13 was drilled in 2002 to a TD of 1,600 feet bgs and cased to 1,100 feet bgs with open-hole completion to TD. Well 15 was drilled in

2004 to a TD 1,600 feet bgs and cased to 1,050 feet bgs with open-hole completion to TD; however, recent video logging revealed the well is 1,556 feet bgs, due to accumulated fill material at the bottom of the well. Logging of drill cuttings from the existing volcanic wells indicates that the top of the basalt is at about 1,040 feet bgs (1,026 feet bsl), which is also consistent with the inflection observed in temperature and specific conductance profiles taken from each well (Figure 3-6).

3.2 Hydrogeology

The following subsections describes the general groundwater flow system of the island. Aquifer management zones and historical pumping are also presented herein, along with a more specific overview of the hydrogeology of the KSDF project site.

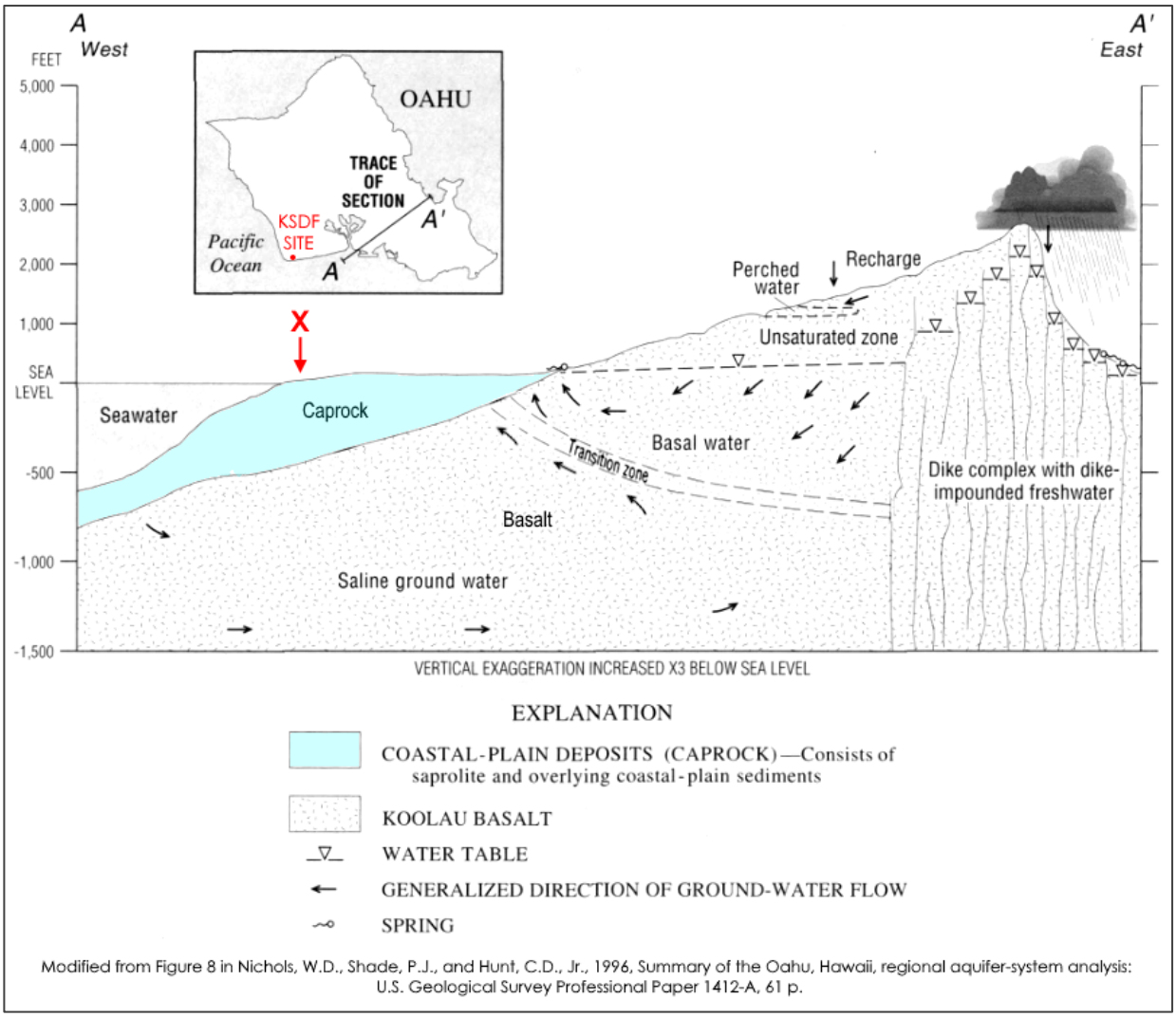
3.2.1 Regional Aquifer Systems

Figure 3-8 is a generalized cross-section showing a conceptual model of groundwater on Oʻahu (Nichols et al., 1996). As indicated by the inset map, the cross-section is external to the KSDF project site; however, the model presented here is directly analogous to the situation at the site, with "X" denoting the general location of the site, the Caprock underlying the ʻEwa Plain, and the high ground surface elevation near the A' end of the section representing the Waiʻanae Volcano to the northwest.

The island hydrogeology is dominated by a freshwater lens within the uplands sitting on saline groundwater derived directly from the ocean. Recharge to the freshwater lens is from infiltration of rainwater at higher elevations. Flow is generally makai, with highest hydraulic heads associated with the highest ground surface elevations. Within the calderas and rift zones, the intrusive dikes create lateral flow barriers that impound fresh recent meteoric recharge at higher elevations. Low permeability zones in the basalt at higher elevations can also support perched groundwater zones that typically discharge at small springs.

Fresh groundwater then flows makai from the dike-impounded groundwater into the basal water zone, which is characterized by relatively low hydraulic gradients associated with high-permeability dike-free basalt lava flows. The fresh basal water system is separated from the saline, ocean-derived groundwater system by a transitional mixing zone. Flow within the saline zone is mauka (i.e., inland) at depth, with flow upward and makai parallel to flow in the basal zone along the transition zone. Fresh groundwater discharges from the basal system into springs, seeps, and the caprock and into the saline zone via mixing along the transition zone.

The basalts within the saline zone beneath the caprock are high permeability lava. The overall flow pattern is shown on Figure 3-8. At the KSDF project site, both the caprock and the underlying basalt contain saline groundwater and are assumed to be in direct communication with the open ocean, though the caprock and basalt are likely hydraulically separated from each other at the site by a layer of mud at the base of the caprock. Because each formation is directly connected to the ocean, the major ion chemistry of each is very similar (**Sections 3.3** and **8.0**).



Modified from Figure 8 in Nichols, W.D., Shade, P.J., and Hunt, C.D., Jr., 1996, Summary of the Oahu, Hawaii, regional aquifer-system analysis: U.S. Geological Survey Professional Paper 1412-A, 61 p.

Figure 3-8. Diagram showing the general conceptual hydrogeologic model for the island of Oʻahu.

Hunt (1996) presented a summary (**Table 3-1**) with ranges of hydraulic conductivities, derived from testing and regional modelling studies, for the various HSUs on Oʻahu. The highlighted zones are related to the more permeable units within the caprock (i.e., the reef limestone) and the underlying basalt. As indicated by Table 3-1, the dike-free basalts and reef limestones tend to have high hydraulic conductivities, while the saprolite and lagoonal muds are characterized by much lower permeabilities. Hunt (1996) also reviewed historical data on storage parameters for the HSUs on Oʻahu and found that values range from 0.01 to 0.2, with most values within 0.05 to 0.1. These values are typical of unconfined systems like those observed on volcanic islands like Oʻahu. Hydraulic conductivity (K) values and storage parameter values from Oki (2005) (**Table 3-2**) and Gingerich and Voss (2005) (**Table 3-3**) are comparable.

Table 3-1. Hydraulic parameters of volcanic and sedimentary rocks found on O'ahu.

Rock type	Permeability	Hydraulic conductivity (ft/d)	Ground-water occurrence	
			Principal	Secondary
Volcanic rocks				
Waianae Volcanics				
Lava flows				
Dike complex	Low to moderate	1 - 500	Dike impounded	Perched
Marginal dike zone	Moderate to high	100 - 1,000	Dike impounded	Basal
Dike free	Moderate to very high	500 - 5,000	Basal	---
Breccia	Low	1 - 100	Perched	---
Saprolite	Very low	<1	Perched	---
Koolau Basalt				
Lava flows				
Dike complex	Low to moderate	1 - 500	Dike impounded	Perched
Marginal dike zone	Moderate to high	100 - 1,000	Dike impounded	Basal
Dike free	Moderate to very high	500 - 5,000	Basal	---
Breccia	Low	1 - 100	Perched	---
Saprolite	Very low	<1	Perched	---
Honolulu Volcanics				
Lava flows	Low to moderate	1 - 500	Perched	---
Cinders	Low to moderate	1 - 500	Perched	---
Tuff	Low	1 - 100	Perched	---
Saprolite	Very low	<1	Perched	---
Sedimentary rocks				
Coral				
In situ reef limestone	Moderate to very high	100 - 20,000	Basal	Perched
Reworked coral rubble	Moderate to very high	100 - 10,000	Basal	Perched
Dunes				
Consolidated	Low	1 - 100	Perched	Basal
Unconsolidated	Low to moderate	1 - 500	Basal	Perched
Sand				
Consolidated	Low to moderate	1 - 500	Basal	---
Unconsolidated	Moderate to high	100 - 1,000	Basal	---
Lagoonal				
Sand	Low to moderate	1 - 500	Basal	---
Mud	Very low	<1	Basal	Perched
Alluvium				
Younger	Low to moderate	1 - 500	Perched	Perched
Older				
Consolidated	Very low	<1	Perched	---
Unconsolidated	Low	1 - 100	Perched	Basal

Modified from Table 1 in
Hunt, C. D., 1996. Geohydrology of the Island of Oahu, Hawaii; U.S. Geological Survey Professional Paper 1412-B, 54 p.

Note: Highlighted items are the relevant units at the site with the permeable units in yellow and the low-permeability units in blue.

Aquifer parameters have been estimated by other researchers. Oki (2005) estimated aquifer parameters for a model simulating the effects of valley fill barriers (Table 3-2). Gingerich and Voss (2005) also estimated aquifer parameters for a 3D Pearl Harbor model (Table 3-3).

Table 3-2. Aquifer Parameters from Oki (2005).

Numerical Simulation of the Effects of Valley-Fill Barriers in the Pearl Harbor Area, Oahu, Hawaii

Table 5. Aquifer-property values used in the construction of the numerical ground-water model of the Pearl Harbor area, Oahu, Hawaii.

[ft, feet; ft/d, feet per day; ft^2/lb, feet squared per pound]

Parameter	Estimated value		
Hydraulic conductivity (ft/d)	**Vertical**	**Horizontal, transverse**	**Horizontal, longitudinal**
Volcanic-rock aquifer	7.5	1,500[1]	4,500[2]
Caprock[3], upper-limestone unit	25	2,500	2,500
Caprock[3], low-permeability unit			
Above Waianae Volcanics	0.3	0.3	0.3
Above Koolau Basalt, west of Waiawa Stream	0.01	0.01	0.01
Above Koolau Basalt, east of Waiawa Stream	0.6	0.6	0.6
Valley-fill barriers	0.058	0.058	0.058
Waianae confining unit	7.5	10	10
Seaward boundary below caprock (last row of elements)	7.5	30	30
Dispersivity (ft)	**Transverse**	**Longitudinal, minimum[4]**	**Longitudinal, middle and maxmum[5]**
Volcanic-rock aquifer	0.82	25	250
Caprock, upper-limestone unit	0.82	25	250
Caprock, low-permeability unit	0.82	10	10
Valley-fill barriers	0.82	10	10
Waianae confining unit	0.82	10	10
Seaward boundary below caprock (last row of elements)	0.82	25	250
High-dispersivity zones	0.82	75	750
Porosity (and specific yield)			
Upper limestone unit	0.2		
Volcanic-rock aquifer, east of Waiawa Stream	0.04		
All other rocks	0.1		
Solid-matrix compressibility (ft^2/lb)	1.2×10^{-7}		

[1]The transverse direction represents the direction transverse to the general lava-flow direction.

[2]The longitudinal direction represents the general lava-flow direction.

[3]In the model, the caprock is represented by an upper-limestone unit and a low-permeability unit with hydraulic-conductivity values that vary spatially depending on whether the caprock overlies Waianae Volcanics or Koolau Basalt, and whether the caprock over Koolau Basalt is east or west of Waiawa Stream.

[4]The longitudinal, minimum dispersivity is the longitudinal dispersivity for flow in the direction of the minimum (vertical) hydraulic conductivity.

[5]The longitudinal, middle dispersivity is the longitudinal dispersivity for flow in the direction of the middle (horizontal transverse) hydraulic conductivity. The longitudinal, maximum dispersivity is the longitudinal dispersivity for flow in the direction of the maximum (horizontal longitudinal) hydraulic conductivity.

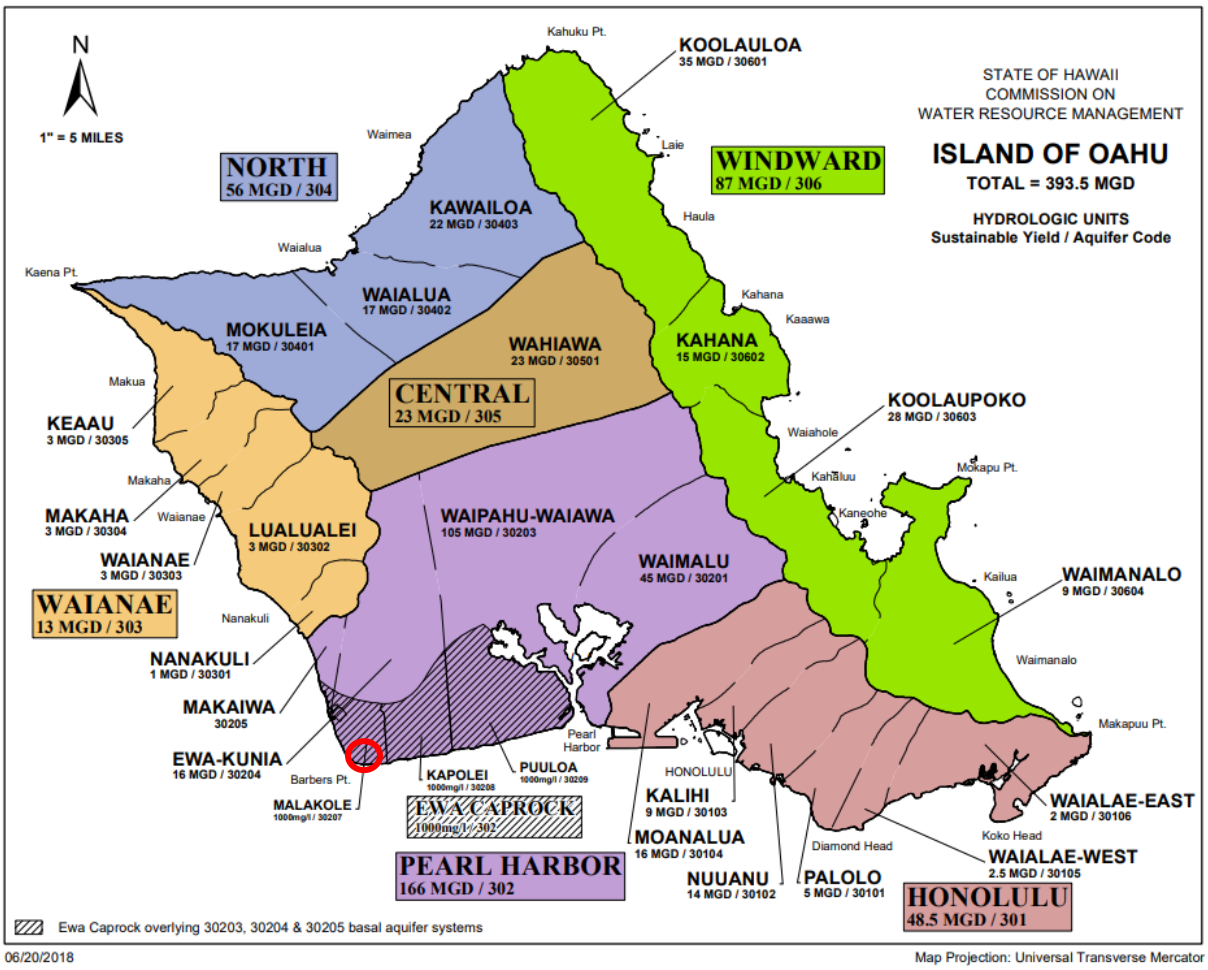
Table 3-3. Aquifer Parameters from Gingerich and Voss (2005).

Parameter	Units	Best model
General		
Freshwater density	(kg/m^{-3})	1,000
Seawater density	(kg/m^{-3})	1,024.99
Water compressibility	(Pa^{-1})	4.47×10^{-10}
Fluid viscosity	(kg/m/s)	10^{-3}
Molecular diffusivity	(m^2/s)	1.5×10^{-9}
Specific yield	(1)	0.04
Aquifer matrix compressibility	(Pa^{-1})	2.5×10^{-9}
Caprock		
Hydraulic conductivity	(m/day)	0.457
Effective porosity	(1)	0.04
Longitudinal dispersivity, α_L	(m)	250
Transverse dispersivity, α_T	(m)	0.25
Basalt		
Horizontal hydraulic conductivity	(m/day)	457
Anisotropy ratio (K_H/K_V)	(1)	200
Effective porosity	(1)	0.04
Leakance of sea boundary	(day^{-1})	0.457
Horizontal longitudinal dispersivity, α_{LH}	(m)	250
Vertical longitudinal dispersivity, α_{LV}	(m)	10
Horizontal transverse dispersivity, α_{TH}	(m)	0.25
Vertical transverse dispersivity, α_{TV}	(m)	0.25

From Table 1 in Gingerich and Voss (2005). Original caption:
"Parameters for southern Oahu 2D and 3D models. Note: best model values are derived from earlier 2D studies with the exception of caprock hydraulic conductivity, which was increased from 0.0457 for the 3D model"

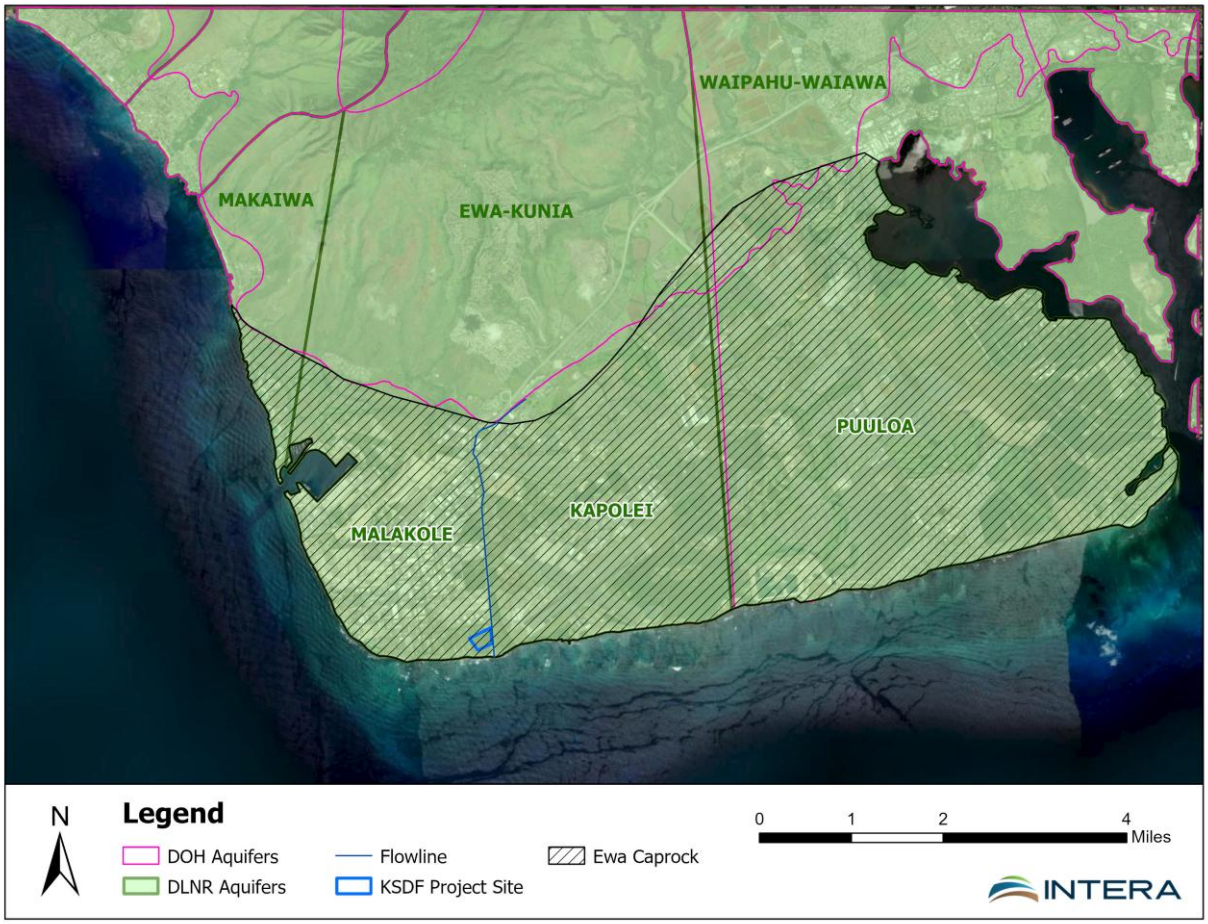
3.2.1.1 Regional Groundwater Management and Historical Pumpage

The Commission on Water Resource Management (CWRM) manages the groundwater resources for the State. CWRM has divided the islands into Aquifer Sectors and Aquifer Systems (**Figure 3-9**). Aquifer Sectors are usually delineated by structural geologic boundaries, although sometimes anthropogenic boundaries influence sector and system boundaries. Aquifer Systems are components of sectors and may be hydraulically connected. The KSDF project site directly overlies the Malakole Aquifer System, which is within the Pearl Harbor Aquifer Sector (**Figure 3-10**). The 'Ewa-Kunia Aquifer System underlies the Malakole Aquifer System. The Malakole Aquifer System is bordered by the Kapolei Aquifer System to the east, the 'Ewa-Kunia Aquifer System below and to the North, the Pacific Ocean to the South, and the Makaiwa Aquifer System and Pacific Ocean to the West (CWRM, 2019). Malakole and Kapolei are caprock aquifers while 'Ewa-Kunia and Makaiwa are volcanic aquifers.



Note: the red circle indicates the approximate location of the KSDF project site.

Figure 3-9. CWRM Groundwater Hydraulic Unit Map, Island of O'ahu (CWRM, 2018).



Note: The hatch mark areas represent the caprock aquifers (i.e., Malakole, Kapolei, and Puʻuloa), which overly the volcanic aquifers (i.e., Waipahu-Waiawa, ʻEwa-Kunia, and Makaiwa).

Figure 3-10. Aquifer System map for the KSDF project site (CWRM WRPP, 2019).

CWRM maintains a database repository of permitted water wells throughout the state of Hawaiʻi. The Well Index and pumpage data for the Malakole, Kapolei, and ʻEwa-Kunia Aquifer Systems were obtained from CWRM on March 6, 2024 and updated on September 9, 2025 (CWRM, 2025). According to CWRM data, there are 21 wells within a 1-mile radius of the KSDF project site, including the three BWS wells (Wells 13, 14 and 15). A map of the CWRM-permitted water wells within the vicinity of the KSDF project site is provided in **Figure 3-11. Table 3-4** lists all wells within a 1-mile radius of the KSDF project site.

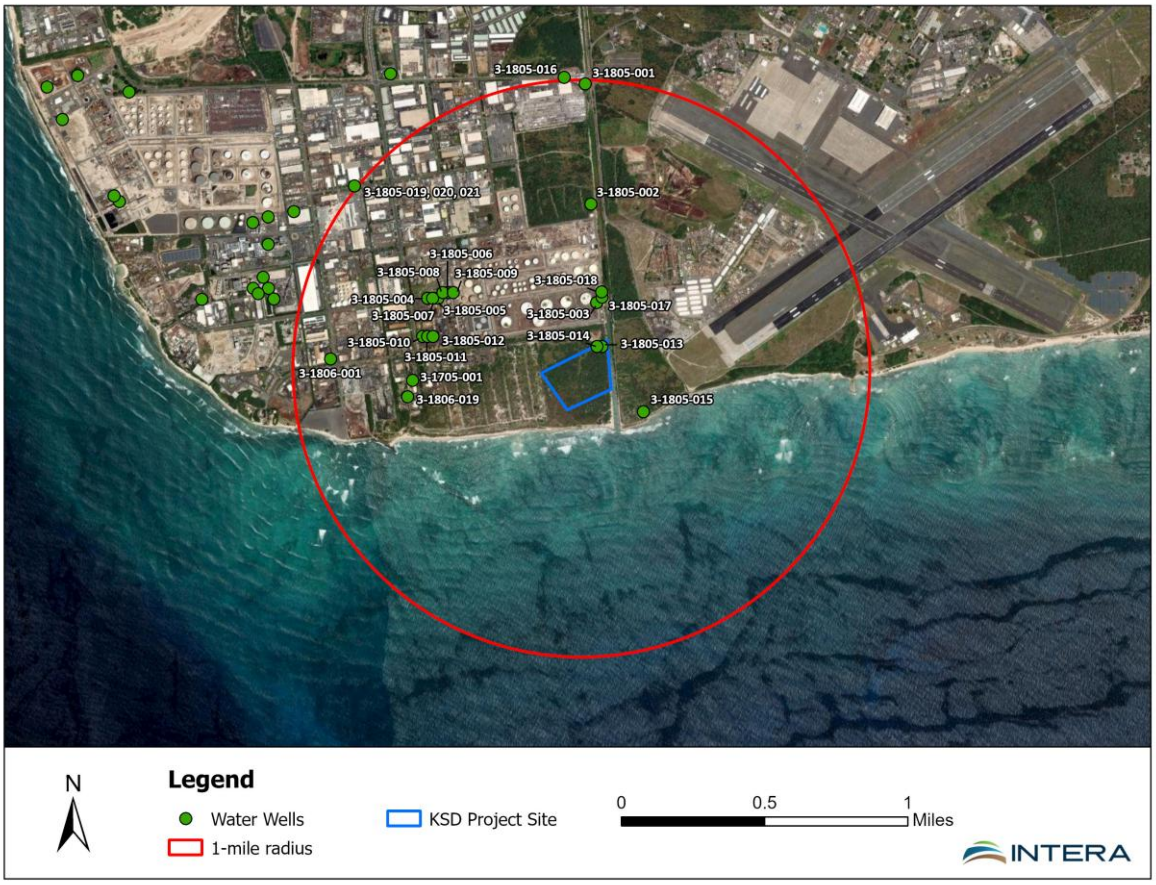


Figure 3-11. CWRM-permitted wells within the vicinity of the KSDF project site.

Table 3-4. List of CWRM-permitted wells within a 1-mile radius of the KSDF project site.

Well No.	Well Name	Owner	Listed Use	Pumpage Data Available	Well Location Coordinates
3-1805-013	Well 13	Board of Water Supply	Unused	Yes – reported pumpage was limited to purging in 2018.	21.299967, -158.087547
3-1805-014	Well 14		Unused	Yes – zero reported pumpage from 2003 to present.	21.299904 -158.087306
3-1805-015	Well 15		Unused		21.299780, -158.087946
3-1805-003	HIR185FW-1 (P-1259A)	Par Hawaii, Inc.	Fire Protection	Yes – Reported pumpage from 2016 to present. 2019 water quality samples provided by PAR revealed: P-1259A – Chlorine at 9,001 parts per million (ppm) and conductivity at 30,000 microSiemens per centimeter (µS/cm); P-1259C – Chlorine at 17,000 ppm and conductivity at 600,000 µS/cm (Par Hawaii, 2019).	21.302222, -158.0875
3-1805-017	TSO-06-FW2 (P-1259B)		Fire Protection		21.3025, -158.087222
3-1805-018	TSO-06-FW3 (P-1259C)		Fire Protection		21.302778, -158.087222
3-1805-002	Barbers Point	Hawai'i MMGD LLC	N/A	No	21.30722222, -158.0877778
3-1805-004	Kalaeloa PW-1	Kalaeloa Partners	Electrical Cooling	Yes- Reported pumpage from 2000 to present .	21.3025, -158.096667
3-1805-005	Kalaeloa PW-2		Electrical Cooling	Yes- zero reported pumpage from 2019 to present.	21.3025, -158.096111
3-1805-006	Kalaeloa PW-3		Electrical Cooling		21.302778, -158.095556
3-1805-007	Kalaeloa PW-4		Electrical Cooling		21.3025, -158.096389
3-1805-008	Kalaeloa PW-5		Electrical Cooling		21.302778, -158.095833
3-1805-009	Kalaeloa PW-6		Electrical Cooling		21.302778, -158.095278
3-1805-010	Kalaeloa PW-7		Unused	Yes- zero reported pumpage from 2013 to present.	21.300556, -158.096944
3-1805-011	Kalaeloa PW-8		Unused		21.300556, -158.096667
3-1805-012	Kalaeloa PW-9		Unused		21.300556, -158.096389
3-1705-001	Cates	Grove Farm Fish & Poi LLC	Unused	No	21.29833333, -158.0975
3-1806-019	'Ewa Island Comm.	Hawai'i Moi Fish	Unused	Partial – One entry of zero pumpage in 2014.	21.2975, -158.097778
3-1806-001	Barbers Point	Hawai'i MMGD LLC	Unused	No	21.299444, -158.101944
3-1805-001	Barbers Point	Department of Hawaiian Home Lands	Unused	No	21.313333, -158.088056
3-1805-016	VIP Sanitation	VIP Sanitation Inc.	Industrial	Yes- Intermittent reporting from 2020 to present.	21.313667, -158.089194

Figure 3-12 through **3-14** show monthly reported pumpage totals for the Malakole, Kapolei and 'Ewa-Kunia Aquifer Systems.

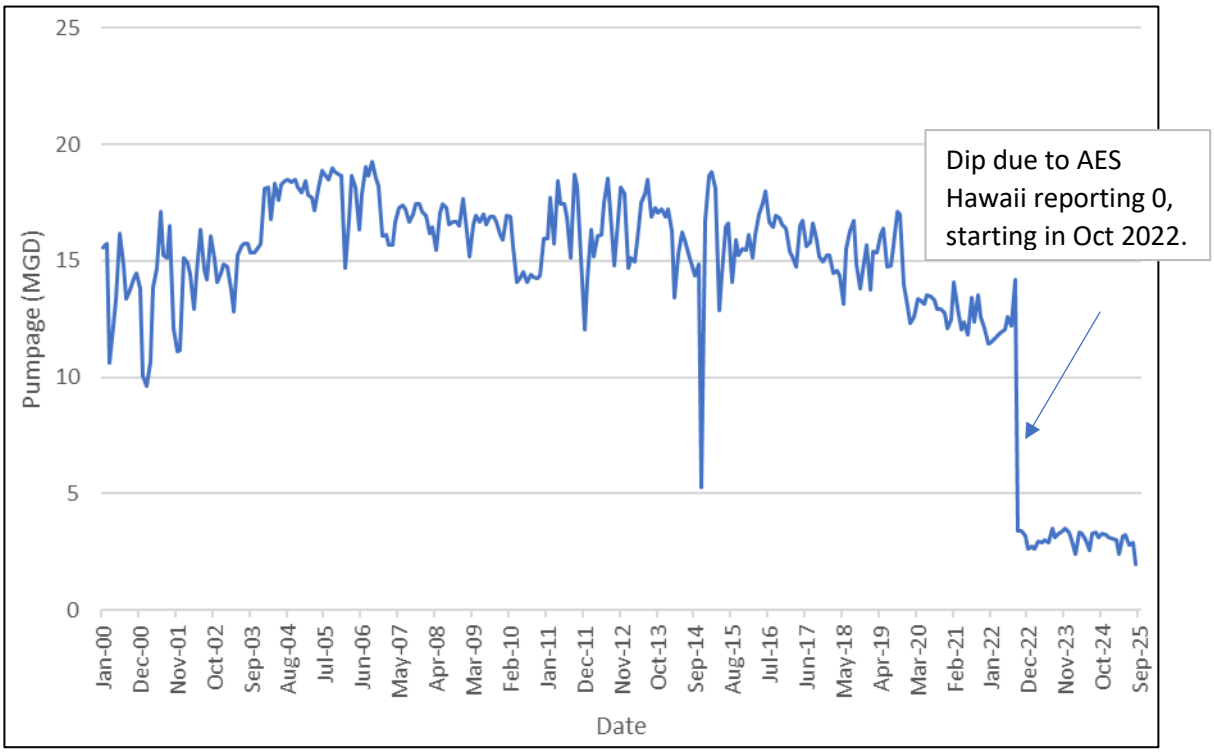


Figure 3-12. Monthly pumpage within Malakole Aquifer (CWRM, 2000 – 2025).

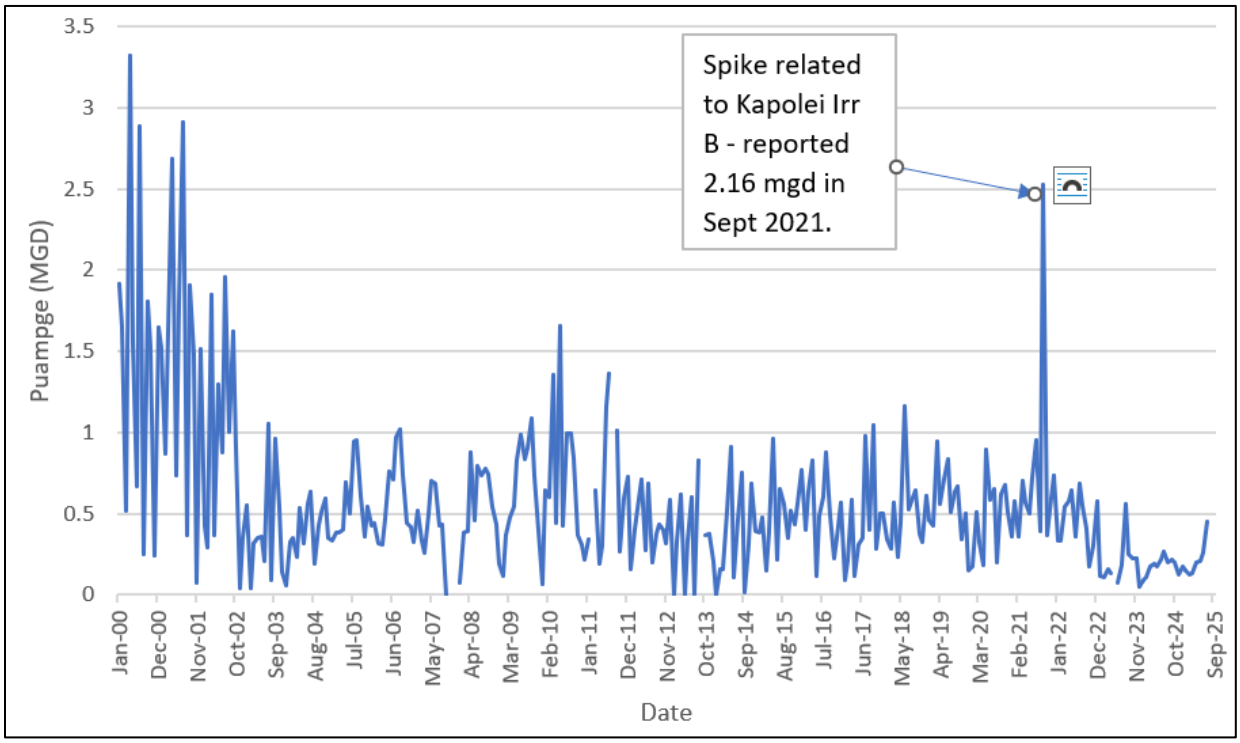


Figure 3-13. Monthly pumpage within Kapolei Aquifer (CWRM, 2000 – 2025).

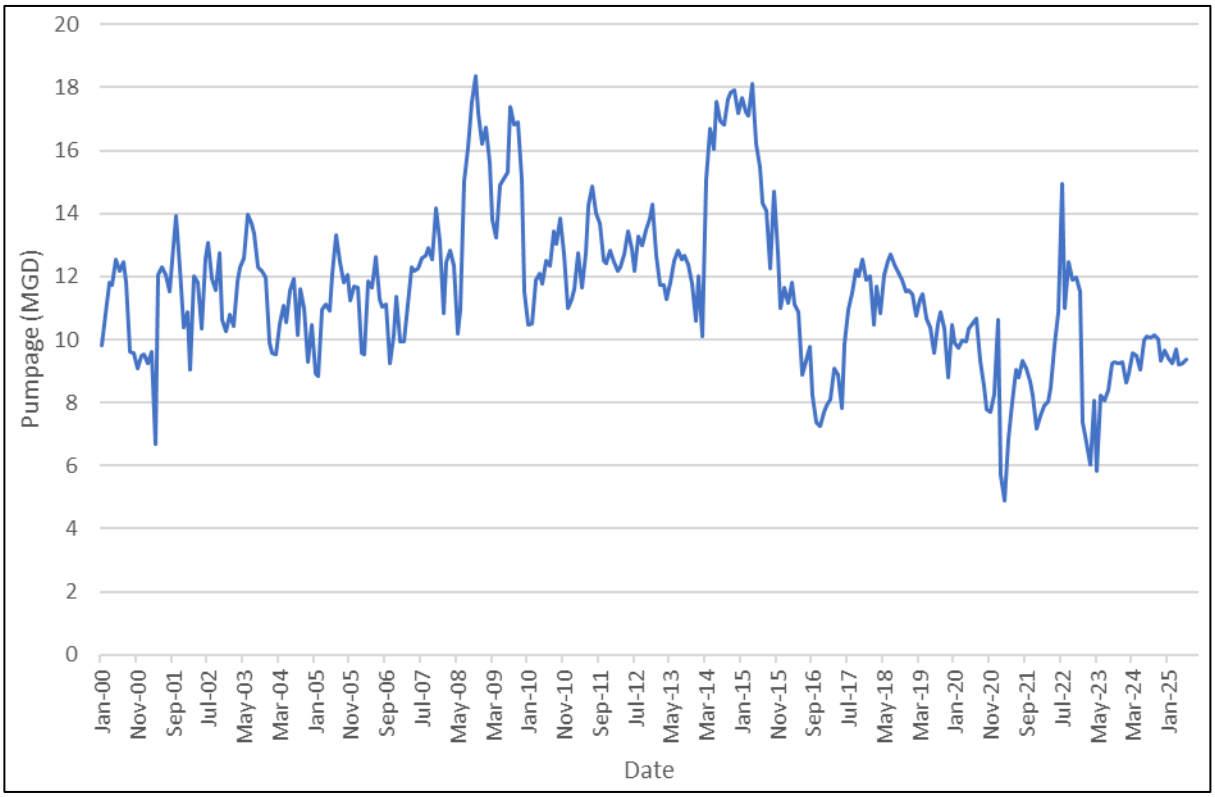


Figure 3-14. Monthly pumpage within 'Ewa-Kunia Aquifer (CWRM, 2000 – 2025).

Figure 3-15 through **3-17** show monthly pumpage for the three Par Hawaii wells, the one active Kalaeloa Partners well, and the VIP Sanitation Inc. well. These wells pump from the Malakole caprock Aquifer System, which overlies the 'Ewa Kunia basal Aquifer System.

Par Hawaii pumpage is associated with fire protection activities. The spike in pumpage in August and September 2023 and in March 2025 is likely related to training exercises from Well HIRI85FW-1. Weekend pump tests are performed at the facility on a weekly basis. According to Par Hawaii, tests run for about 9 minutes at a max rate of 2,000 gpm, resulting in approximately 54,000 gallons pumped per week from the caprock aquifer (CWRM, 2005; University Hawai'i at Mānoa, 2012). Kalaeloa Partners is an independent power producer in Campbell Industrial Park. The power plant utilized saltwater from the caprock aquifer for plant cooling requirements and emergency backup. VIP Sanitation is a potable plumbing business. VIP reported intermittent pumpage from 2020 to present drawing from the caprock aquifer according to the drilling completion logs (CWRM, 2025; University Hawai'i at Mānoa, 2012).

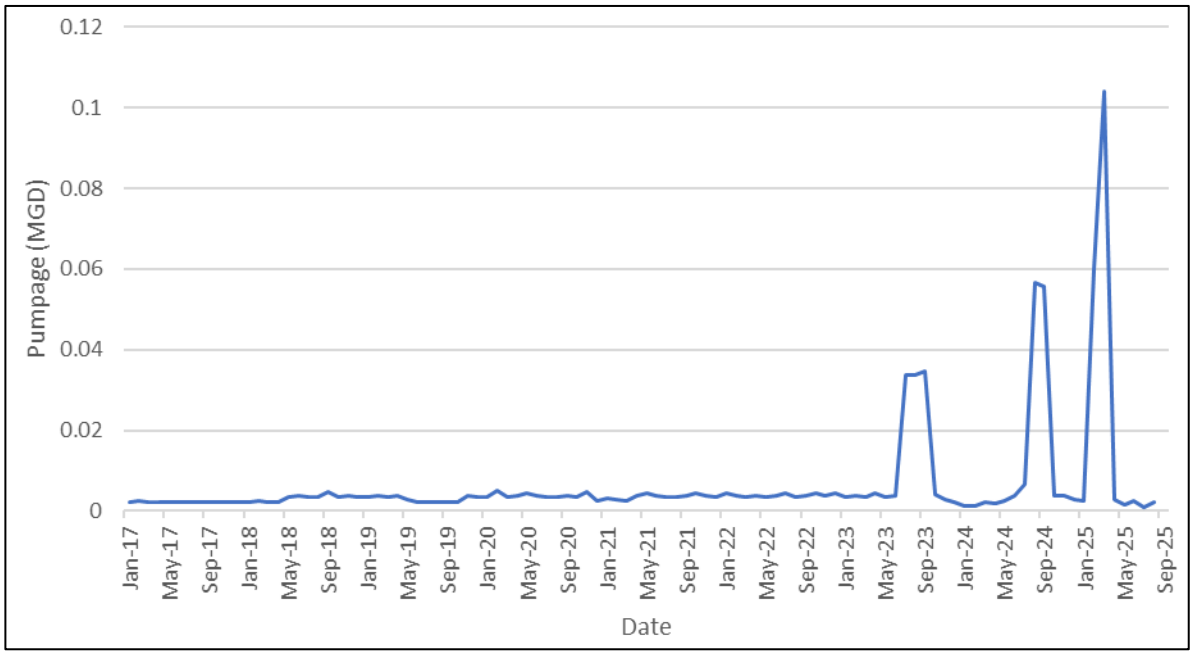


Figure 3-15. Par Hawaii Refinery Monthly Pumpage (CWRM, 2017 – 2025).

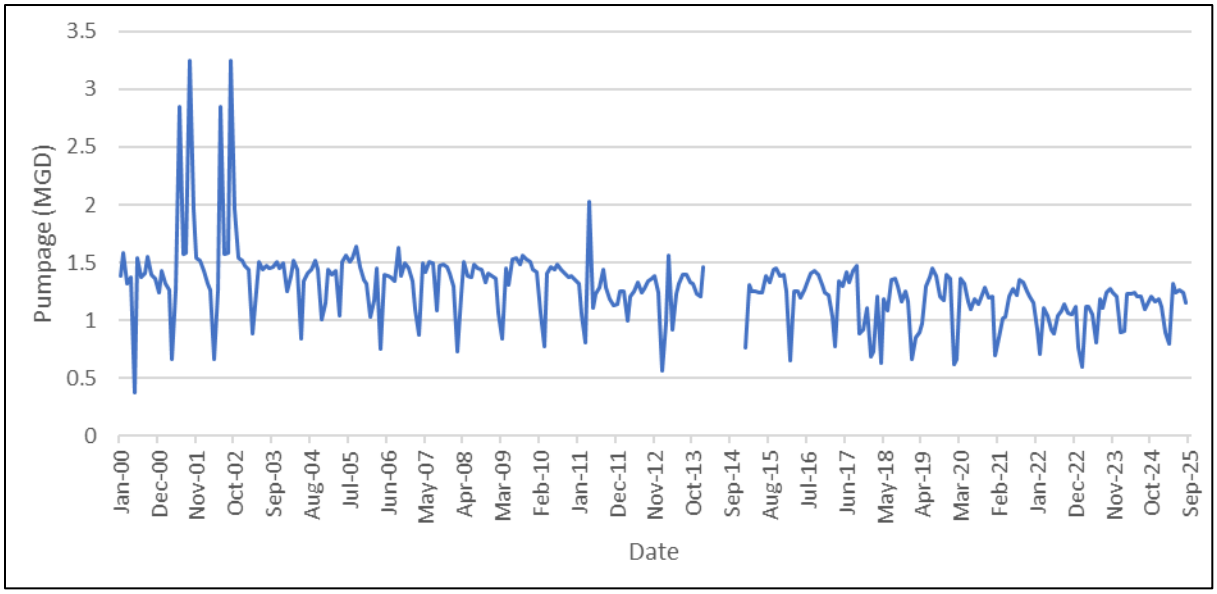


Figure 3-16. Monthly pumpage by Hawaiian Electric Company, Well No. 3-1805-004 (CWRM, 2000 – 2025).

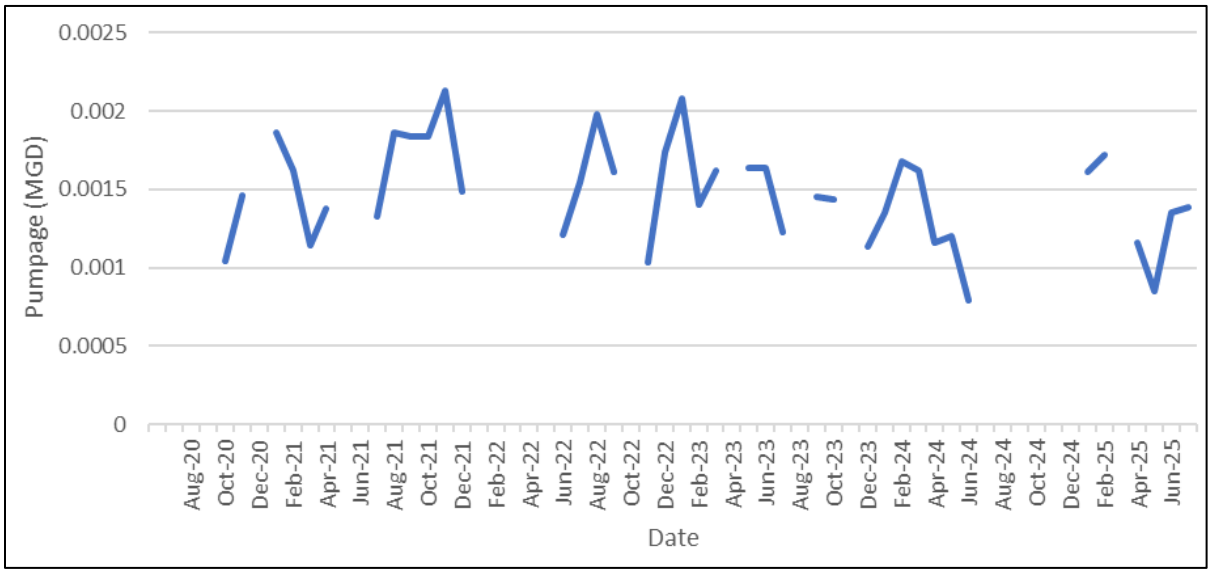


Figure 3-16. Monthly pumpage by VIP Sanitation (CWRM, 2000 – 2025).

The following subsection contains details about hydrogeologic parameters for the relevant HSUs, existing wells on-site, and current water level conditions at the KSDF project site.

3.2.1.2 Hydrogeologic Properties

The caprock HSU at the KSDF project site is primarily composed of reef limestones with interbedded lagoonal muds. The depth of the base of the caprock, as identified in the on-site volcanic production wells, is about 1,040 feet bgs (1,026 feet bsl).

The table of hydraulic conductivity (K) values produced by Hunt (1996) indicated hydraulic conductivities for the reef limestones ranging from 100 to 20,000 feet/day (Table 3-1). Hydraulic testing in Well 14 indicates that the hydraulic conductivity of the caprock in the open interval (50 to 300 feet) is 2,500 feet/day, which is consistent with the ranges of values presented in Hunt (1996). The presence of lagoonal mud layers within the caprock will likely result in significant vertical anisotropy with horizontal hydraulic conductivity values that are much greater than vertical. Horizontal anisotropy is unexpected.

The volcanic HSU at the site is composed of primarily intact subaerially emplaced lava flows. Weathering and erosion of the paleosurface of the basalt has likely produced a layer of low permeability saprolite at the volcanic-caprock contact. The summary of hydraulic conductivity (K) values produced by Hunt (1996) indicated typical basalt hydraulic conductivities ranging from 500 to 5,000 feet/day. Analysis of data from a pumping test performed in Well 13 (Mink & Yuen, 2003) indicates that the hydraulic conductivity of the basalt at the site is about 1,465 feet/day, which is consistent with the ranges of values presented in Hunt (1996).

The contact between the caprock and the underlying basalt dips towards the ocean at about 4.2° at the KSDF project site (Mink & Yuen, 2003). The original lava flow direction was about 10° west of south (azimuth 190°), and the permeability anisotropy tensor is aligned with the maximum permeability

parallel to the lava flow direction and the minimum permeability in the vertical (Oki, 2005). Studies of basalt hydrogeology on O'ahu by Nichols et al. (1996) suggested a typical anisotropy factor of K_{min} = $0.33K_{max}$ for the basalts. Horizontal to vertical anisotropy in lava flows typically range from 10:1 to 100:1 (Burnham et al., 1977).

3.2.1.3 Previous Aquifer Tests

The BWS collected intermittent water level and pumpage data from Well 13 and Well 14 between 2001 and 2002. **Figure 3-17** and **Figure 3-18** show the response to pumping in each well, along with tidal data from the Honolulu NOAA station. The data show that minimal to no tidal signal is observed in the water levels in Well 13 during the testing in 2001 (Figure 3-17). In contrast, Well 14 shows significant tidal influence on the water levels recorded during the testing (Figure 3-18). Tidal efficiency is defined as the ratio of the amplitude of one tidal cycle observed at a point in the aquifer to the amplitude of the tide. To estimate tidal efficiency in Well 14 from the 2001-2002 data, the third tidal cycle was used, and it is assumed that steady-state drawdown in the well has been achieved. This results in a tidal efficiency of about 0.6/1.6 or 40%. The aquifer tests conducted between 2001 and 2002 appear to go to a steady-state drawdown at Wells 13 and 14, superimposed on the tidal response at each well.

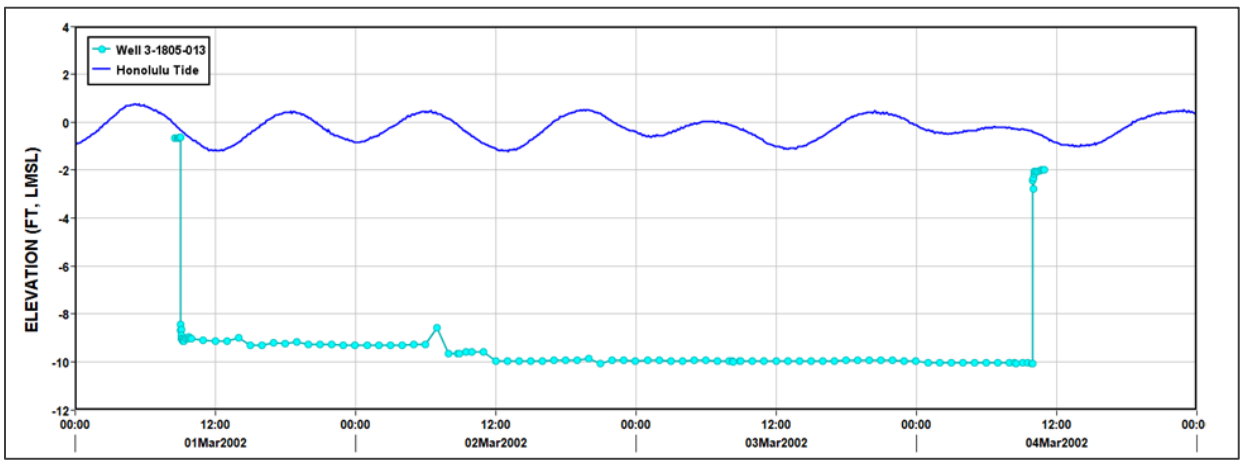


Figure 3-17. Historic pumping test of Well 13.

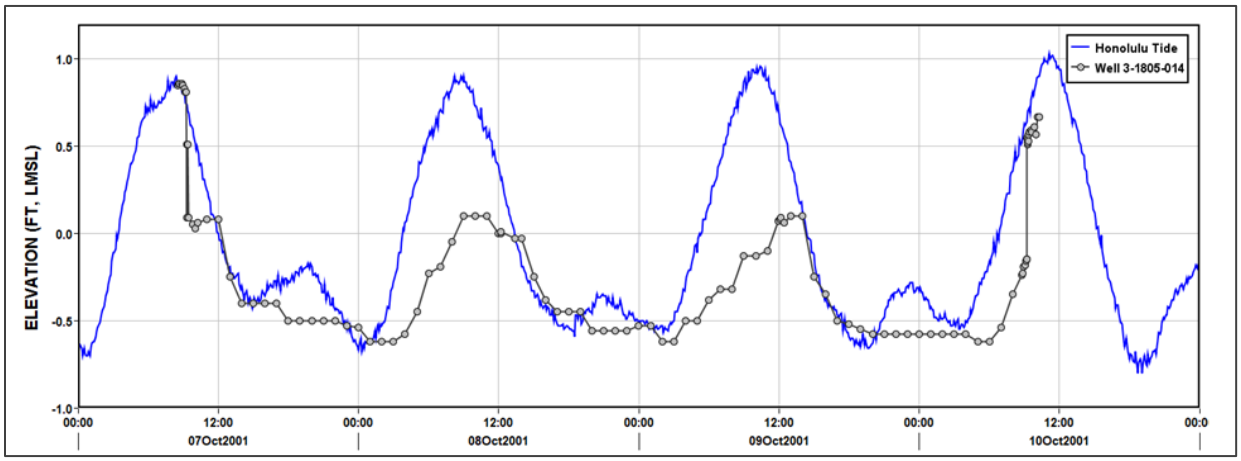


Figure 3-18. Historic pumping test of Well 14.

As observed in the single-well pumping tests conducted in Wells 13 and 14 between 2001 and 2002, tidal signals have a small effect on the pumping signature in the basalt aquifer but have a more significant impact on water levels in the caprock aquifer. Injecting into the caprock aquifer while pumping occurs in the volcanic aquifer obscures any signal in water levels that may indicate leakage. Attempting to correlate a water level fall in the caprock with a corresponding fall caused by pumping in the volcanic aquifer is inconclusive, as both the injection and the tidal signals are large enough to obscure any leakage signal that may be present.

To clearly identify vertical leakage between the caprock and basalt aquifers, a response in one aquifer must be observable during pumping of the other aquifer. Furthermore, the leakage signal in the unpumped aquifer must be large enough to be distinguished from the tidal signal. The best chance of identifying leakage is through an extended pumping test in the caprock aquifer; any leakage signal that may be created in the volcanic aquifer by pumping in the caprock aquifer is less likely to be obscured by the tidal signal in the volcanic aquifer than in the caprock aquifer.

INTERA performed an extended aquifer testing program at the KSDF project site in 2025 to better characterize the hydraulic connection between the caprock aquifer and volcanic aquifer. The methodology and results from the 2025 field investigation are further discussed in **Section 7.0**.

3.3 Water Quality and Geochemistry

The Final WP reviewed historical water sampling data generated by others and developed an analytical program for the present study based on the potential of various analytes to differentiate water quality in the caprock and volcanic aquifers and to provide other geochemical information useful for developing and refining a CSM or one-time screening of water quality for a large list of contaminants. The Final WP emphasized including relatively mobile contaminants with greater potential to reach deep wells in the volcanic aquifer if pathways exist between sources of industrial releases and the deep wells. Several relatively immobile contaminants were included only for screening purposes. This report identifies constituents considered relatively mobile and discusses them in greater detail given

the potential to reveal any cross-formation flow. This section summarizes historical data for previous site samples and available regional data for less common analytes used in this study as natural geochemical tracers of groundwater recharge and other processes, providing context for selection of the analytical program in the Final WP and the results presents in **Section 8.0**.

Groundwater sampling previously took place at the KSDF project site in 2001, 2002, 2003, and 2018. These sampling events collected groundwater samples from the caprock well (Well 14) and/or volcanic well (Well 13). The results from these historical sampling events are further discussed in the following subsections. Additionally, KD recently conducted water quality sampling of groundwater from Well 13 as part of a testing program for their RO pilot study (KD, 2023 and 2025). The analytical results from these sampling events are saved in the BWS records and are available upon request.

The USGS National Water Information System (NWIS) database contains water sample results from several wells and other locations in the region of the KSDF project site for a variety of water quality analytes, as well as some limited stable isotope and radionuclide data (USGS, 2024). For instance, detectable radon-222 (a short-lived radionuclide indicative of recent recharge) and values of stable isotopes consistent with recharge of freshwater quality ($\delta^{18}O$ = -4.29‰ VSMOW and $\delta^{2}H$ = -22.5‰ VSMOW[2]) were recorded in the Makakilo Well (well no. 3-2004-004), a 268-feet deep well in the volcanic aquifer located a few miles inland from the site, which would suggest a possible endmember water quality for recharge from far upgradient that may mix in the transition zone with seawater recharged from offshore.

University of Hawaiʻi studies (Lau and Hailu, 1968; Hufen et al., 1980) provided detailed characterization of similar natural tracers in groundwater, seawater, and precipitation elsewhere around Oʻahu. The University of Hawaiʻi studies sampled groundwater along multiple pathways discharging toward Pearl Harbor and from areas further east or upland, and their westernmost sample location was at ʻEwa Beach, which could be a helpful analogue to consider for the CSM, although some differences would be expected from the site given its further westward (i.e., leeward) location from the University of Hawaiʻi sampling locations. For example, Lau and Hailu (1968) noted potential for tritium to distinguish groundwater in Oʻahu's volcanic aquifers near the ocean from that in upland recharge areas.

A search of the International Atomic Energy Agency (IAEA) Marine Radioactivity Information System (MARIS) database for radiochemical analyses in seawater near Oʻahu revealed only limited historical data (IAEA, 2024). Some data are available from the Global Network of Isotopes in Precipitation for tritium in rainfall at the Hilo station on the island of Hawaiʻi during the 1960s—when the spike in atmospheric tritium activity from aboveground thermonuclear testing known as the bomb peak occurred (IAEA, 2023)—and Lau and Hailu (1968) reported tritium in precipitation for shorter-term records for stations on or near Oʻahu.

The following subsections discuss the general use of various groups of analytes to characterize general water quality, evaluate potential contamination, and assess the geochemical characteristics of

[2] For explanation of stable isotopes conventions and notation, see **Section 8.3.2.**

groundwater in the KSDF project site wells. Historical water sampling results are described where applicable. These results are in the BWS records and are available upon request.

3.3.1 General Chemistry, Total Dissolved Solids, Inorganics, and Metals

KD collected samples of groundwater from Well 13 on March 13, 2024 and submitted them to Eurofins Eaton Analytical Pomona (Eurofins) for laboratory analysis of general chemistry analytes, metals, anions, and radiochemical analytes. INTERA reviewed the laboratory report provided by the BWS while preparing the Final WP; selected observations from the recent Well 13 sample data or from other historical site data are discussed in the following subsections.

3.3.1.1 Total Dissolved Solids and Electrical Conductivity

Total dissolved solids (TDS) in water is a measure of the total solute load. High TDS can affect taste and impact water plumbing and household appliances. Previous data indicate the concentrations of TDS in the caprock and volcanic aquifers are similar to that of seawater.

Shallow caprock monitoring wells (MW 1 and MW 2) were not previously analyzed for TDS, but electrical conductivity (E_c) readings were collected in 2022. E_c measures how well water conducts electricity, providing an indication of dissolved ions (e.g., chloride) in water. E_c in MW 1 was 11.4 milliSiemens per centimeter (mS/cm), and E_c in MW 2 was 7.23 mS/cm (ETC, 2022). These E_c readings were higher than typical for freshwater[3]. Comparatively, the E_c reading of volcanic aquifer Well 13 was 48 mS/cm in 2024, consistent with seawater. The elevated E_c readings in the upper caprock wells indicate there may be mixing of freshwater and saltwater in the caprock aquifer. **Section 8.4** provides additional analysis and explanation for the elevated E_c readings at MW 1 and MW 2. As discussed in Section 8.4, these values likely reflect localized mixing between recent precipitation and more saline water, either from the underlying aquifer or from the canal, which moves in and out of the shallow zone.

3.3.1.2 Field Parameters

Although more transient by nature than most solute concentrations, field parameters (temperature, pH, specific conductance [S_c] or E_c, dissolved oxygen [DO], and oxidation-reduction potential [ORP]) provide an easy and inexpensive means to compare water quality or look for anomalies and should generally be collected whenever water samples are collected for laboratory analysis.

Figure 3-6 shows vertical profiles of temperature indicating the volcanic aquifer is cooler than the caprock aquifer, and temperature generally decreases with depth. The initial temperature readings in MW 1 and MW 2 (both ~27.9 degrees Celsius [°C]) were warmer than those in Well 13 (15.3 to 16.7°C historically. According to NOAA, the ocean's average pH is now around 8.1 and was closer to 8.2 prior to the industrial revolution (carbon dioxide emissions to air contribute to a current trend of

[3] For example, using a conversion factor between E_c and TDS of 540 mg/L per mS/cm, which is at the lower end of the range for natural waters (Hem, 1985), the E_c of 7.23 mS/cm in MW 2 would equal TDS of at least 3,900 mg/L. The actual TDS in MW 2 and MW 1 was likely even higher because conversion factors over the range of chemistry in natural waters in Hem (1985) may be up to 80% higher.

acidification in the ocean). The initial pH readings of 6.91 in MW 1 and 7.19 in MW 2 are neutral, whereas historical pH readings in the deeper wells are less than pure seawater values but slightly more alkaline than the initial values for the upper caprock monitoring wells. DO and ORP are affected by redox conditions that may change in response to mineral reactions, bacterial activity, and other factors. As DO and ORP are both transient and sensitive to sampling techniques, caution is warranted when interpreting any differences within small datasets.

3.3.1.3 Cations, Anions, Alkalinity

Major cations/anions/alkalinity are basic geochemistry data used to determine water "types" and evaluate mixing and reactions, including those needed to correct apparent radiocarbon ages. Major cations and anions are the positively and negatively charged ions, respectively, present in natural waters that contribute to TDS and E_c of water. The dominant cations and anions establish the water type. Alkalinity refers to a solution's ability to neutralize acid and represents the net effect of the concentrations of bicarbonate, carbonate, and hydroxide ions—whose equilibrium speciation varies as a function of pH. The bicarbonate ion is usually the dominant type of alkalinity in waters of neutral to slightly alkaline pH. Bicarbonate and other alkalinity require an analytical method separate from the other major anions.

Existing data indicate that waters in both the caprock and volcanic aquifers at the site are high-TDS, sodium-chloride type waters that are consistent with a seawater source; however, the overall distribution of major cations and anions may indicate more subtle differences between water sources even if they are of the same type, or changes may be observed over time in response to pumping or other disturbances. Other BWS wells completed in the Wai'anae volcanic series and located a few miles farther inland than the site (the Makakilo Wells and Honouliuli Wells 1 & 2) also contain sodium-chloride type water but with much lower TDS (398 to 737 mg/L at the time of drilling), with more significant proportions of magnesium, calcium, and bicarbonate. This suggests more dominant freshwater recharge. Plotting major ions and factors such as TDS, Sc, and pH on a Durov diagram is a convenient method to visualize such differences and is among the analyses presented for the study sample data in **Section 8.3**. These data also allow for calculation of charge balances to ensure data accuracy, and they are fundamental to most other geochemical calculations.

3.3.1.4 Inorganic Nitrogen

Inorganic nitrogen (measured as nitrate, nitrite, ammonium, and total nitrogen) in water can be harmful if ingested at high levels and can indicate if a water source is fresh water or seawater. Nitrate and nitrite are common in groundwater near facilities where human and animal wastes are handled (e.g., feedlots or OSDSs). Nitrogen species may interconvert according to a complex cycle once in the environment, but some species such as nitrate may be highly mobile under the right conditions, so analyzing the individual species as well as total nitrogen will help to understand potential presence and pathways for nitrogen above background concentrations.

3.3.1.5 Dissolved Metals

Dissolved metals, including arsenic [As], aluminum [Al], barium [Ba], cadmium [Cd], chromium [Cr], copper [Cu], iron [Fe], lead [Pb], lithium [Li], manganese [Mn], mercury [Hg], selenium [Se], silver [Ag], strontium [Sr], vanadium [V], and zinc [Zn], may occur in groundwater due to a combination of natural and anthropogenic factors (Hem, 1985). The metals listed include the "RCRA 8 metals"—eight of the most common toxic metals that may be released from a broad array of industrial activities (some also naturally occur) —plus additional metals that may naturally occur in trace concentrations (relative to major cations) and serve as potential markers of different water sources or as tracers of potential anthropogenic impacts if detected in anomalously high concentrations/distribution (in a relative sense, as seawater quality will generally contain higher concentrations of trace metals than fresh water). Li is included in the KSDF project study because it is listed on the EPA's Fifth Unregulated Contaminant Monitoring Rule (UCMR 5); Lithium is likely to be naturally elevated in seawater. Of the RCRA 8 metals, only As and Ba were detected in MW 1 or MW 2 and the low concentrations in these wells resulted in insufficient evidence to suggest any current impacts of industrial activities, nor were they conclusively different than concentrations in Well 13. Certain inorganics, e.g., silica or Cr, may sometimes occur at higher concentrations in basalt aquifers than in seawater and might thus distinguish water in the volcanic aquifer from the caprock aquifer; however, no Cr was detected in any previously analyzed site samples. A silica concentration of 37 mg/L was measured in Well 13 in March 2024; recent historical silica data were unavailable for other wells to compare.

3.3.1.6 Hexavalent Chromium

Hexavalent chromium has historically been used as an anti-scaling agent in cooling water systems for some utilities, and it is more mobile and more toxic than the more common chromium (III) species. There is no definitive evidence that hexavalent chromium was used at the electric utility or other nearby industries in the information reviewed to date. It was included in the Final WP because it has potential to reach shallow monitoring wells or reveal fast pathways to deeper wells. No hexavalent chromium was detected in Well 13 at the reporting limit of 0.020 µg/L in March 2024, but the result was qualified due to a problem with chemical preservation of the sample.

3.3.2 Organics

The Final WP included a broad suite of organic analyses to identify anthropogenic contaminants and any potential differences in concentrations of natural or anthropogenic organic substances between aquifers that could be used to observe cross-formational flow as a result of pumping.

3.3.2.1 Chemical Oxygen Demand, Biochemical Oxygen Demand, and Total Organic Carbon

Chemical oxygen demand (COD) is the amount of oxygen consumed when all organic and inorganic compounds susceptible to oxidation by the oxidant used in the analysis (typically dichromate) in a water sample are fully oxidized. Water with elevated levels of COD typically contain higher levels of decaying plant matter, human waste, or industrial effluent. Biochemical oxygen demand (BOD) is the amount of oxygen consumed by microorganisms while they break down organic matter under aerobic conditions. COD concentrations are normally higher than BOD concentrations because organic

compounds are, in general, more readily oxidized chemically as opposed to biologically. In historical samples from the caprock well and the shallow volcanic well, COD measurements ranged from 49 to 490 mg/L, whereas available BOD measurements were all non-detections (less than 1 mg/L). Historical samples were analyzed by EPA Method 410.4, which suffers from interference for saline samples due to oxidation of chloride by the dichromate reagent used in the analysis. Although smaller differences could occur between COD and BOD values if samples contained high levels of nonbiodegradable organic matter, the large discrepancy is likely indicative of inorganic interferences imparting high bias to the COD analyses. Unfortunately, alternative methods of COD analysis may involve tradeoffs with overall sensitivity or practicality, so it is recommended to base interpretations on multiple measurements of organic material to determine if COD results are plausible. Another bulk measurement of organic material is total organic carbon (TOC). In Eurofins'analysis of a March 2024 sample of groundwater from Well 13, no TOC was detected by Standard Method 5310C with a reporting limit of 0.30 mg/L.

3.3.2.2 Volatile Organic Compounds

Volatile organic compounds (VOCs) are a class of chemicals analyzed together by EPA Method 8260, many of which have relatively high mobility in groundwater compared with other organic chemicals. VOCs include constituents of petroleum and petroleum products that may have been released to the caprock aquifer from various sources (such as the Par refinery) and other common chemicals, including several halogenated and non-halogenated solvents typical of sources such as the former Naval Air Station or various manufacturing operations in the industrial park. A list of target VOCs (typically several dozen individual compounds) is determined during contracting with a laboratory and should include, at a minimum, the VOCs with enforceable health standards and especially methyl tert-butyl ether (MTBE), which was a common gasoline additive that can be particularly mobile in groundwater and in some cases can even form "diving plumes." No MTBE has been detected in site samples analyzed to date. No VOCs were detected in MW 1 and MW 2.

To account for the possibility of detecting compounds other than those on the target list, the laboratory can, upon request, report tentatively identified compounds (TICs). TICs are not positively identified, and their concentrations are uncertain, because—unlike with target analytes—the laboratory instrument has not been calibrated for their detection; however, they are reported with the laboratory's best estimate of the compound identity and concentration for future follow-up. Laboratories have different practices regarding reporting TICs; for example, negotiated prices may include reporting some maximum number of TICs exhibiting the clearest departure from the baseline signal. As noted in **Section 8.3.5**, the laboratory selected for VOCs analysis in the KSDF project study reported non-detections for TICs for all VOCs samples and included three TICs in its reports as examples of VOCs that could have been identifiable on chromatograms, had detectable concentrations been present.

3.3.2.3 Semi-volatile Organic Compounds

Semi-volatile organic compounds (SVOCs) are not anticipated to be mobile but are included in the Final WP, primarily as a one-time screening for the production well quality and at MW 1 and MW 2 to characterize any shallow groundwater quality issues reaching the site. Low levels of naphthalene,

2-methylnaphthalene, and phenanthrene were detected in MW 2, but no other SVOCs were detected in MW 1 and MW 2 as part of the 2022 analysis, which was limited to PAHs. These compounds would be unexpected in the volcanic aquifer wells.

As noted in **Section 8.3.5**, the laboratory selected for SVOCs analysis in the KSDF project study reported non-detections for TICs for all SVOCs samples and included six TICs in its reports as examples of SVOCs that could have been identifiable on chromatograms, had detectable concentrations been present.

3.3.2.4 Total Petroleum Hydrocarbons as Gas, Diesel, and Oil

TPH-G, TPH-D, and TPH-O measure bulk concentrations of hydrocarbons (rather than individual compounds) that are not anticipated to be mobile but are included in the Final WP primarily as a one-time screening for the production well quality and at MW 1 and MW 2 to characterize any shallow groundwater quality issues reaching the site. Oil and grease is an alternative analysis more familiar to utilities and permitted wastewater discharges and is included for the same reasons as TPH. Oil and grease was detected in the 2002 sample, which has been alternately interpreted to be from Well 13 or Well 14; however, oil and grease was not detected in several more recent samples.

3.3.2.5 Pesticides

Organochlorine pesticides may be associated with former agricultural and perhaps some industrial operations near the site. Organochlorine pesticides are not anticipated to be mobile but are included in the Final WP primarily as a one-time screening for the production well quality and at MW 1 and MW 2 to characterize any shallow groundwater quality issues reaching the site.

3.3.2.6 Polychlorinated Biphenyls

PCBs may be associated with electric utility operations. PCBs are not anticipated to be mobile but are included in the Final WP primarily as a one-time screening for the production well quality and to characterize any shallow groundwater quality issues reaching the site. No PCB compounds were detected in MW 1 or MW 2 in 2022 at reporting limits of 0.10 µg/L.

3.3.2.7 1,4-Dioxane

1,4-dioxane is an extremely soluble and mobile compound that has been used as a stabilizer for chlorinated solvents and directly as a solvent in certain industrial applications. It is included in the Final WP because, if it has ever been released near the site, it has potential to reach shallow monitoring wells or reveal fast pathways to deeper wells.

3.3.2.8 Ethylene Dibromide

Ethylene dibromide (EDB), also known as 1,2-dibromoethane, is an extremely mobile compound with high toxicity that may be detected to the part per trillion level if an appropriate analytical method is used. EDB was a lead scavenger historically used in leaded fuels, including automotive gasoline and especially in aviation gasoline and jet fuels. Given the presence of the refinery and the former Naval

Air Station near the site, EDB may travel miles farther than associated leaded fuels if releases occurred. No EDB has been detected in available analyses to date by EPA Method 8260, but other methods are available with much lower reporting limits.

3.3.2.9 Per- and Polyfluoroalkyl Substances

PFAS were historically used in AFFF for fire protection at facilities such as airports and refineries and may impact groundwater at significant levels where foam concentrate releases occurred. PFAS have also historically been used in numerous other products. The UCMR 5 includes a list of 30 chemical compounds: 29 PFAS compounds and lithium. UCMR 5 is an EPA requirement for drinking water systems, and the BWS has requested this analysis to be performed. Section 2.6.2 lists some confirmed and suspected sources of PFAS in the vicinity of the site, and, given the widespread use and occurrence of PFAS, there may be others.

3.3.2.10 Ethylene Glycol

Ethylene glycol is a de-icing agent used at many airports in colder climates. It is possible it may have been used somewhat at the airport/former Naval Air Station, where it could have been washed from aircraft and runways into whatever drainage features existed to collect runoff.

3.3.3 Geochemical Constituents and Tracers

Various geochemical constituents and tracers—including tritium, noble gases, chlorofluorocarbons (CFCs)/ sulfur hexafluoride (SF_6), radiocarbon/$\delta^{13}C$, major cations/anions, oxygen isotopes and hydrogen isotopes—can be used to assess the relative age of groundwater and to provide indications of sources of recharge and whether the water is from relatively recent recharge or “old” recharge. Age of groundwater in the individual aquifers can provide an indication of influence from recent precipitation, seawater, or other surface waters.

3.3.3.1 Tritium, Noble Gases, CFCs/SF_6, and Stable Isotopes

Analyses of tritium (^3H), noble gases, and stable isotopes ($\delta^{18}O$ and δ^2H) in groundwater have previously been used to characterize water supply recharge and vulnerability to surface and near-surface sources (e.g., in studies in the Los Angeles basin and throughout California such as Hudson et al. [2002]). Tritium is radioactive and has a half-life of ~12.3 years, making it a useful tracer of modern groundwater that has been recharged within the last several decades and is thus relatively susceptible to anthropogenic compounds. Tritium (^3H) tests for the presence of modern recharge in groundwater, i.e., whether any measurable component from a fast pathway has recharged the volcanic aquifer from the ocean or from an overlying aquifer. Noble gases, including helium isotopes, should be analyzed in combination with tritium to help differentiate mixing between young and old recharge from radioactive decay during groundwater residence time (where helium-3 generated from decay of tritium must be distinguished from helium generated by volcanic activity and other sources). Note that low-level counting with enrichment or (preferably) helium ingrowth methods of tritium analysis achieve much lower reporting limits than EPA methods, which are intended only to screen for bulk

tritium concentrations, so specialty laboratories are required even though many commercial laboratories offer tritium analysis.

Lau and Hailu (1968) compiled and reported early tritium measurements from the Hawaiian hydrologic cycle, finding at that time that tritium was variable but readily detectable in the ocean, rainwater, surface water, and groundwater of O'ahu and that, "the [groundwater sample] with the least tritium was basal water farthest down gradient and below a 1100-foot thick caprock in 'Ewa Beach, O'ahu[4]," which was indistinguishable from a tritium-free blank sample. The Lau and Hailu (1968) preliminary finding that groundwater on O'ahu appeared to have widely varying age and that deep basal groundwater appeared to be "relatively stagnant, lacking exchange with the overlying basal groundwater" supported the idea that tritium and other groundwater residence time tracers could feasibly distinguish between caprock and volcanic aquifer groundwaters and potentially indicate communication between the two if it exists.

CFCs and SF_6 are anthropogenic gases with differing histories of release to the atmosphere that have been used for similar purposes as tritium in studies tracing modern recharge of groundwater. SF_6 has been reported to be naturally occurring in some volcanic settings, so SF_6 ages may appear younger than actual in some cases (Solomon and Gilmore, 2024). CFCs and SF_6 are included in the Final WP as an additional line of evidence to tritium given that few regional analyses of any of the modern recharge tracers are available for comparison, so it is possible that low concentrations of one tracer in local recharge inputs could present ambiguities that additional tracers would help to resolve. Recent studies (Kelly and Glenn, 2015; Okuhata et al., 2022) took a similar multiple-analyte approach including CFCs and $^3H/^3He$ in west Hawai'i to address similar objectives to those of the site study.

The stable isotopes of the oxygen and hydrogen atoms in water molecules, reported as $\delta^{18}O$ and δ^2H, are inexpensive natural tracers commonly used to support the interpretation of water sources because they respond to phase changes such as ocean evaporation and precipitation condensation before recharge. These responses correlate to site-specific factors such as the elevation of recharge (which can also be interpreted from noble gases), such that different signatures may be associated, for example, with high-elevation recharge to volcanics, near sea-level elevation recharge to caprock, and offshore recharge of seawater. Brennis et al. (2024) reported $\delta^{18}O$ and δ^2H in precipitation sampled across O'ahu, establishing a reference dataset including logically expected patterns for altitude effects and evolution of isotopic signatures in precipitation as the water vapor mass is depleted by progressive rainfall from the northeast (windward) to the southwest (leeward) side of the island. The stable isotope data are discussed further in **Section 8.3.2**.

3.3.3.2 Radiocarbon

Radiocarbon (^{14}C) is a radioactive tracer present in the natural environment and used for similar purposes as ^3H. Its half-life of 5,730 years allows it to estimate older apparent groundwater ages. To interpret the recharge age from dissolved inorganic carbon species in groundwater, corrections of

[4] The downgradient basal groundwater sample was from the 'Ewa 1 (T133) well referred to as 1959-05 on **Figure 3-7**.

apparent ages can be estimated for mineral interactions, with aquifer solids using additional measurements such as carbon stable isotopes ($\delta^{13}C$), Ca, Mg, and alkalinity.

3.3.4 Radiochemistry

Radionuclides are COCs for which testing is required for all new drinking water sources, per Hawai'i Administrative Rules (HAR) Chapter 11-20 and Code of Federal Regulations (CFR) Title 40, Part 141. The radiochemistry analytes in the Final WP include gross alpha activity, gross beta activity, radium 226/228, strontium-90, tritium (using the helium ingrowth method), and uranium (as the metal). The following subsections discuss information on radiochemistry analytes from previous testing, including the March 2024 sampling.

3.3.4.1 Gross Beta Activity

DOH has voiced concerns over high beta activity previously measured in samples from Well 13. In an April 12, 2024 letter from DOH to the BWS, DOH indicated that past water quality samples detected beta activity levels that are "extremely high as EPA considered 50 picocuries per liter (pCi/L) to be the level of concern for beta particles" (DOH, 2024).

The measured gross beta activity of 212 pCi/L in the March 13, 2024 groundwater sample appeared to exceed the screening level of 50 pCi/L for drinking water sources under the federal National Primary Drinking Water Regulations (40 CFR 141) as implemented by the EPA's radionuclides rule (65 FR 76708) and amendments (69 FR 38850). Review of the dataset and the detailed language of the rule plus evaluation of potential sources of radioactivity in the Well 13 water found that the gross beta activity is attributable almost entirely to naturally occurring potassium-40 and therefore does not exceed any federal screening level (see Section 3.3.4.2), and that other radionuclides tested occur only at low or non-detectable levels. Non-detection of common beta emitters associated with nuclear facilities and non-detection of gross alpha activity in the groundwater sample are consistent with naturally occurring sources of the gross beta activity.

INTERA searched for other local measurements of gross beta activity in groundwater or sources of groundwater recharge to corroborate the hypothesis that wells encountering seawater quality anywhere on O'ahu would likely have comparable activity to that of Well 13. Measurements from other BWS wells completed in the Wai'anae volcanic series had much lower gross beta activities (6.2 pCi/L in the Makakilo Well and 3.6 pCi/L in Honouliuli Wells I & II), but they had correspondingly low concentrations of potassium (4.4 to 7.4 mg/L) and TDS (398 to 737 mg/L); i.e., these wells sampled mauka locations apparently recharged dominantly by fresh water (also supported by radon-222 and stable isotope values as noted in Section 3.3). A search of the IAEA MARIS database found no local gross beta measurements for seawater near O'ahu, although some historical strontium and cesium isotope analyses were available. A search of the USGS NWIS database for radiochemistry analyses of groundwater, surface water, and other samples from the state of Hawai'i likewise found historical radionuclide analyses but yielded no local gross beta measurements.

3.3.4.2 Potassium-40

The source of potassium-40 and elevated beta activity in the groundwater from Well 13 is believed to be from seawater recharging the Wai'anae volcanic aquifer. Walker and Rose (1990) reported an average radioactivity in seawater of 13.6 becquerels per kilogram (Bq/kg), of which 88% was attributed to potassium-40. Potassium-40 decays by beta emission approximately 89 percent of the time and by electron capture with gamma emission for most other decay events. Assuming an average seawater density of 1.03 kilograms per liter, 13.6 Bq/kg is equivalent to approximately 380 pCi/L of total activity, or 330 pCi/L of potassium-40. Thus, the reported average radioactivity for seawater could easily account for a level of 212 pCi/L in the groundwater, given other measurements consistent with predominantly seawater-quality water in the sample (e.g., 10,000 mg/L sodium and 20,000 mg/L chloride).

The published radionuclides rule (65 FR 76708) anticipated the potential for naturally occurring potassium-40 to influence gross beta measurements and prescribed a method to calculate only the gross beta activity from other radionuclides for compliance purposes:

> *Several USGS studies, including the study entitled Gross-beta Activity in Ground Water: Natural Sources and Artifacts of Sampling and Laboratory Analysis, have found that Potassium-40 and Radium-228 appear to be the primary sources of beta activity in ground water. EPA recognizes that naturally occurring potassium could trigger many systems into conducting expensive beta speciation analysis due to exceedance of the screening level. Therefore, as noted above, naturally occurring Potassium-40 analyzed from the same or equivalent sample used for the gross beta analysis may be subtracted from the total gross beta activity to determine if the screening level is exceeded. The potassium-40 beta particle activity must be calculated by multiplying elemental potassium concentrations (in mg/L) by a factor of 0.82.*

The measured potassium concentration in the March 13, 2024 groundwater sample was 330 mg/L, corresponding to 270 pCi/L by the EPA's calculation method, which exceeds the measured gross beta activity of 212 pCi/L or is equal to it at 95% confidence (based on the 2-sigma total uncertainty of 57.7 pCi/L reported by the laboratory). That is, all of the measured gross beta activity in the groundwater is attributable to potassium-40 beta particle activity according to the EPA's calculation method; therefore the groundwater sample does not exceed the screening level.

3.3.4.3 Radium-228

Radium-228 activity of 1.46 pCi/L was measured in the Well 13 sample and contributes to gross beta activity, but it is less than the screening level, smaller than the uncertainty of the potassium-40 calculation, and likely naturally occurring. The combined radium-226 and radium-228 activity of 1.68 pCi/L is less than the MCL of 5 pCi/L. Radium-226 is not a beta emitter.

3.3.4.4 Tritium and Strontium-90

Tritium and strontium-90 are beta emitters, but tritium is not detected by gross beta analysis. Both were analyzed and were not detected in the Well 13 groundwater sample, and their minimum detectable concentrations for the laboratory analysis were well below their screening levels of 20,000 and 8 pCi/L, respectively, which correspond to 4 mrem/yr. Note that analytical methods of tritium

analysis for compliance with health standards have much higher detection limits than research methods that use tritium as a tracer of geologically modern groundwater recharge, such as low-level tritium counting with enrichment and the helium ingrowth methods. Eurofins detected no tritium in the initial groundwater sample from Well 13 by EPA Method 906.0, but tritium analysis by helium ingrowth is included among other analyses in the Final WP to test whether apparent ages of the caprock and volcanic aquifer groundwater are a distinguishing feature (see Section 3.3.3.1).

4.0 Field Investigation Work Plan

INTERA's desktop review of all relevant background information revealed several key data gaps that require further assessment to better characterize the hydrogeologic relationship between the caprock and volcanic aquifers at the KSDF project site. The Final WP prepared by INTERA serves as a data gap analysis and describes a proposed integrated field investigation program designed to test the hypothesis that sufficient hydraulic separation exists between the caprock aquifer and the production zone in the volcanic aquifer to protect the supply source wells from harmful migration of COCs from the caprock (INTERA, 2024).

4.1 Data Gaps Identified

The key data gaps identified in the Final WP include the following:

4.1.1 Data Gap: Geology

- There is limited information related to regional and onsite lithology. Onsite geologic information comes from vague and imprecise driller's logs, which over-generalize formation data and descriptions. There are no onsite geologic logs showing caprock and basalt lithology. Other than Well 13 and Well 15, there are no wells onsite to provide additional geologic information. Additional field methods are needed to improve characterization of regional and onsite lithology. Specifically, there is a need to identify the occurrence and extent of mud units within the caprock and mud, clay and saprolite at the contact between the caprock and basalt.

4.1.2 Data Gap: Hydrogeology

- Sources reviewed had limited hydrogeologic information related to the connection between the caprock and volcanic aquifers. It was determined that additional field methods are needed to assess and better characterize the hydraulic separation between the aquifers.
- Historic water level data indicate that water levels in volcanic Well 13 are lower than those in caprock Well 14 and they exhibit a different response to tidal fluctuations that indicates separation of the aquifers. Water levels in volcanic Well 15 are also lower than those in Well 14; however, they exhibit a very similar tidal response to Well 14. It was determined that the mechanical integrity of Well 15 needs to be assessed and evaluated to determine if the tidal response is a result of a casing breach or grout failure.

4.1.3 Data Gap: Water Quality and Geochemistry

- Existing water quality data from onsite and offsite wells are limited. There is potential for groundwater quality impacts associated with historic and current land use of the project site and surrounding properties. There is a lack of water quality data associated with injection well/OSDS impacts and potentially COC-impacted surface runoff/stormwater infiltration from surrounding industrial activities. Additional groundwater sampling from the onsite and offsite

wells is warranted. A more robust analytical list is recommended to capture potential COCs not previously detected or tested.

- Spatial coverage of water quality data is limited. Currently, there are only two environmental monitoring wells associated with the KSDF project site. Sampling of wells beyond the boundaries of the project site would help to delineate the vertical and horizontal extent of potential COC migration from surrounding properties via groundwater.
- There are no known water quality or geochemistry data from the deep volcanic well (Well 15). Additionally, water quality and geochemistry parameters in caprock Well 14 have been only partially characterized for comparison to the volcanic aquifer. Additional water quality and geochemistry assessment of the deep volcanic and caprock wells is needed to evaluate the possible hydrogeologic connection or separation.
- Given that groundwater appears to be recharged primarily from seawater in the volcanic aquifer and the caprock aquifer, characterization of offshore seawater chemistry as an endmember for comparison to well samples, if feasible, may help with interpretation of naturally occurring analytes or potential mixing with additional recharge sources.

4.2 DOH Recommendations

Given the numerous data gaps identified at the KSDF project site, the DOH SDWB provided the BWS recommendations on assessing the hydraulic separation of the caprock and basalt aquifers to better understand the degree of protection of the basalt aquifer from potential contaminants in the caprock. The DOH recommendations are outlined in a PowerPoint presentation, which was presented to the BWS in September 2023 (DOH, 2023). The DOH recommendations include, but are not limited to, performing pumping tests on the production wells and monitoring in all available basalt and caprock wells, a synoptic water level survey of area wells, and a tidal efficiency study for a well screened in the caprock. These recommendations have been incorporated in the Final WP. The Final WP field investigation elements are described in **Section 5.0**.

5.0 Field Investigation Elements

The field investigation elements described in this report aim to address the data gaps identified in the Final WP and provide multiple lines of evidence to support conclusions made regarding characterizing the hydraulic connection between the caprock aquifer and volcanic aquifer at the KSDF project site. The field investigation elements include a geophysical logging program, aquifer testing program, and water sampling and analysis program. Field investigation fieldwork occurred from February 2025 to August 2025. A timeline of key field investigation events is provided in **Table 5-1** below, and a detailed discussion of each field investigation element is provided in **Sections 6.0**, **7.0**, and **8.0**.

Table 5-1. Timeline of key field investigation events following WP.

Start Date	End Date	Well	Activity
2/19/2025	2/27/2025	Well 15	Well 15 Bailing
4/3/2025	4/3/2025	Well 15	Post-Bailing Video Inspection
4/7/2025	4/23/2025	Well 15	Well 15 Liner Installation and Grouting
4/26/2025	4/26/2025	Entire Site	Transducer Deployment - Wells
5/2/2025	5/2/2025	Tide Guage	Transducer Deployment - Tide Guage
5/15/2025	5/15/52025	Entire Site	Elevation Survey
5/23/2025	5/23/2025	Entire Site	Geophysical Survey
5/27/2025	5/27/2025	Offshore	Offshore Sampling
6/2/2025	6/2/2025	Entire Site	First Day of Aquifer Testing Mobilization
6/3/2025	6/3/2025	Entire Site	Security Incident During Mobilization
6/4/2025	6/22/2025	Entire Site	Security Measures Implemented
6/23/2025	7/2/2025	Well 15	Remobilization and Equipment Setup at Well 15
7/3/2025	7/3/2025	Well 15	Attempted Step Test - Terminated due to equipment failure
7/4/2025	7/6/2025	Well 15	Recovery
7/7/2025	7/7/2025	Well 15	Step Testing
7/8/2025	7/8/2025	Well 15	Recovery
7/9/2025	7/10/2025	Well 15	Cycle Test
7/11/2025	7/11/2025	Well 15	Recovery
7/12/2025	7/17/2025	Well 15	120-Hour Constant Rate
7/18/2025	7/18/2025	Well 15	Recovery
7/19/2025	7/27/2025	Well 14	Equipment Setup at Well 14
7/28/2025	7/28/2025	Well 14	Step Testing
7/29/2025	7/29/2025	Well 14	Recovery
7/30/2025	8/4/2025	Well 14	120-Hour Constant Rate
8/5/2025	8/5/2025	Well 14	Recovery
8/6/2025	8/10/2025	Well 13	Equipment Setup at Well 13

Start Date	End Date	Well	Activity
8/11/2025	8/11/2025	Well 13	Step Testing
8/12/2025	8/12/2025	Well 13	Recovery
8/13/2025	8/14/2025	Well 13	Cycle Test
8/15/2025	8/15/2025	Well 13	Recovery
8/16/2025	8/21/2025	Well 13	120-Hour Constant Rate
8/22/2025	8/22/2025	Well 13	Recovery
8/23/2025	8/31/2025	Entire Site	Water Level Monitoring and Equipment Demobilization

6.0 Geophysical Logging Program

6.1 Hypothesis and Outcome Scenarios

The primary objective of the geophysical logging program was to perform a suite of geophysical logging in the volcanic and caprock wells at the site with a specific focus on electromagnetic (EM) dual induction (i.e., resistivity) and gamma ray logging throughout the entire intervals and resistivity/self-potential (SP) logs in the open intervals. The gamma ray logs are used to identify mud zones within and at the base of the caprock and determine thickness of those zones to test the hypothesis of separation of the two aquifers. Overall, the resistivity logs provided additional correlation on formation lithology and combined with the natural gamma log response improve the confidence in the overall interpretation.

The hypotheses for the geophysical logging program are as follows:

1. There is a mud layer at the base of caprock that acts as a low-permeability layer providing hydraulic separation between the caprock injection zone and the volcanic production zone.
2. There are additional mud layers within the caprock beneath the lower caprock that act as low-permeability zones, reducing the vertical permeability of the caprock and reducing downward migration of injectate from the caprock injection zone to the volcanic production zone, while simultaneously enhancing migration of injectate towards the ocean.

Four possible outcomes were identified in the Final WP. The potential outcomes relative to the hypotheses are as follows:

Outcome 1: The geophysical survey identifies clearly defined high-gamma zones at the base of the caprock and within the caprock that are notably different than the underlying volcanics and that appear to correlate with mud layers identified on existing cross-sections.

Result: The geophysical survey supports the hypothesis and is consistent with the assumption of a low permeability layer separating the caprock and volcanic aquifers. The gamma signatures indicate numerous mud/silt intervals. The geophysical survey suggests that the caprock is anisotropic with minimum hydraulic conductivity (K) in the vertical direction, which likely impedes vertical flows in the caprock. In Wells 13 and 15, the higher gamma response indicates muds/silts in the caprock, and the geophysical survey suggests that the caprock is hydraulically anisotropic—that is, the higher gamma muds and silts have relatively low hydraulic conductivity, which will impede vertical flow in the caprock. This result supports the hypothesis.

Outcome 2: The geophysical survey shows variations in gamma response throughout the entire borehole with some high-gamma zones; however, the high-gamma zones indicate no distinct thick zones that could represent low-K units.

Result: This hypothesis is unsupported. The geophysical survey identified clear low-K units.

Outcome 3: The geophysical survey shows very similar gamma response throughout the entire caprock interval and throughout the entire volcanics interval with no indication of a clearly defined gamma response at the caprock/volcanics contact.

Result: The geophysical survey does not support the hypothesis. The gamma responses can be differentiated, and there is a defined gamma response at the caprock/volcanic contact.

Outcome 4: The geophysical survey results are considered unreliable because of unforeseen equipment problems or failure of equipment to collect formation data properly due to the large bore diameters.

Result: The survey results do not support the hypothesis. The geophysical equipment functioned correctly, and INTERA was able to collect usable data.

6.2 Study Design

INTERA subcontracted RECONPetro to perform geophysical well logging at the KSDF project site on May 23, 2025. The scope of work included acquiring downhole geophysical data in Wells 13, 14, and 15. Due to the large-diameter boreholes and PVC casing and screens, RECONPetro utilized large diameter geophysical logging tools capable of providing sufficient signal penetration into the casing and the adjacent borehole to collect useful survey data.

Methodology in acquiring downhole data included using a modern well logging unit capable of conveying logging tools down each well with multiconductor wireline cable. Once the tool string reached total depth in each well, data were recorded while the tool string was extracted from the well at a nominal speed of 40 feet/minute. Repeat logging sections were also performed for QA/QC purposes. Given the large diameter of the wells, the best combination of tools to obtain geophysical well data included gamma ray and dual induction.

Gamma Ray measurements are commonly used to identify formation and mud, silts, or clays. Gamma ray measurements can detect natural radioactive materials, primarily potassium, uranium, and thorium. These elements are found naturally in rocks in varying proportions. Clays, silts, and muds—due to their compositions—tend to contain much more of these elements than sandstone or carbonates (limestone or dolomites). Gamma rays are measured in American Petroleum Institute (API) units. Clays, muds and silts will tend to read higher API units than sandstone/carbonates. In addition to differentiating between clays, silts, and muds versus geologic material, such as sandstone/carbonates, gamma ray measurements are also used for depth or lithology correlations with nearby well offset data.

Resistivity measurements are useful in both geological correlation and pore fluid resistivity properties. For this project, RECONPetro deployed an EM Dual Induction-LL3/SP device. The tool utilizes the concept of an induced electromagnetic field into the formations using high voltage transmitter coils; the resulting eddy currents that form in the formations are measurable at the receiver coils, thus establishing the conductivity/resistivity of the formation. This tool produces three curves: deep induction, medium induction, and a Laterolog/Shallow measurement. Each of these measurements have a varying depth of investigation. The deep induction is the farthest, with 60 inches (5 feet)

penetration into the formation. The basic interpretation of the resistivity measurement for water wells is that clean, low salinity water will exhibit a higher resistivity value than more saline or contaminated water. Another value-added measurement with the resistivity is the spontaneous potential (SP), which gives relative permeability indication of the reservoir strata.

The borehole geophysical logging interpretation discussed below is based on correlation of the geophysical log response and available lithology from a recently drilled geotechnical boring, located northwest of the Kalaeloa Wells (Appendix C) and the lithology from a previously installed deep core hole on the 'Ewa Plain (Stearns and Chamberlain, 1967). The geotechnical boring northwest of the Kalaeloa Wells was drilled by Geolabs, Inc. for KD to a depth of 300 feet bgs. Review of the boring log and rock core photographs shows a distinct transition from sedimentary lithology to reddish brown mud around 125 feet bgs. The bottom of the mud layer is around 145 feet bgs, where it transitions back to marine sedimentary deposits.

The Stearns and Chamberlain (1967) 'Ewa Plain deep core hole was drilled to a depth of 1,100 feet bgs. Review of the boring log shows a thin mud layer around 150 feet bgs, which corroborates findings from the Geolabs, Inc. geotechnical boring. This mud layer delineates the upper and lower caprock. Another distinct mud layer is present below 300 feet bgs, defining the bottom of the lower caprock. Below the lower caprock is an alternating sequence of mud and limestone layers. Basalt derived soil is present around 1,075 feet bgs, below which is alternating weathered and unweathered layers in the basalt (Stearns and Chamberlain, 1967).

6.3 Results

The borehole geophysical logs for Wells 13, 14 and 15 are included in Appendix E. Prominent lithologic layers are delineated (in yellow shading) on each log. The yellow-highlighted delineated lithologic layers on the RECONPetro geophysical logs are based on a correlation of the geophysical log signals to Geolab Inc.'s geotechnical boring and the deep 'Ewa Plain core hole. The caprock lithology from the existing logs improved the confidence of the overall interpretation and offset the impacts on the geophysical log response due to the large borehole diameter and presence of annular space cement grout.

6.3.1 Well 13

RECONpetro's gamma ray and resistivity logging tool signals identified distinct zones of mud/silt and carbonate deposits in Well 13. Delineated mud/silt layers were interpreted at the following approximate intervals:

- 120 to 180 feet bgs,
- 370 to 380 feet bgs,
- 460 to 470 feet bgs,
- 500 to 530 feet bgs,
- 560 to 570 feet bgs,
- 630 to 680 feet bgs,

- 750 to 850 feet bgs,
- 890 to 950 feet bgs,
- 985 to 995 feet bgs,
- 1,020 to 1,060 feet bgs,
- 1,070 to 1,080 feet bgs,
- 1,100 ft to 1,110 feet bgs,
- 1,140 to 1,150 feet bgs,
- 1,160 to 1,170 feet bgs, and;
- 1,180 to 1,190 feet bgs.

Top of basalt is tagged at approximately 1,200 feet bgs.

6.3.2 Well 14

The logging tool gamma ray and resistivity signals identified one distinct mud/silt layer in Well 14. A single layer was identified at approximately 120 to 190 feet bgs. The remainder of the well column to about 300 feet bgs was identified as carbonate lithology.

6.3.3 Well 15

The logging tool gamma ray and resistivity signals identified distinct zones of mud/silt and carbonate deposits throughout Well 15. Mud/silt layers were identified at the following approximate intervals:

- 80 to 90 feet bgs,
- 100 ft to 110 feet bgs,
- 120 to 130 feet bgs,
- 150 to 230 feet bgs,
- 370 to 390 feet bgs,
- 410 to 420 feet bgs,
- 450 to 480 feet bgs,
- 520 to 540 feet bgs,
- 560 to 580 feet bgs,
- 620 to 670 feet bgs,
- 740 to 770 feet bgs,
- 830 to 860 feet bgs,
- 920 to 990 feet bgs,
- 1,030 to 1,070 feet bgs,
- 1,100 to 1,120 feet bgs,
- 1,130 to 1,150 feet bgs,

- 1,160 to 1,170 feet bgs, and;
- 1,180 to 1,190 feet bgs.

Top of basalt is tagged at approximately 1206 feet bgs.

Figure 6-1 shows the geophysical logging signal results, along with the interpreted sequence of mud and carbonate units. These results are incorporated into the CSM cross-sections shown in **Section 9.0**.

The geophysical survey results identified delineated mud layers in the caprock formation for Wells 13, 14, and 15. The mud layers delineated on the geophysical logs show a strong correlation, which is further illustrated in the geologic cross-sections from the Geolabs Inc. and deep 'Ewa Plain boring logs. The mud layer intervals are interpreted as laterally continuous, low-permeability horizons that can act as confining units between the caprock and volcanic aquifers.

A mud layer separating the upper and lower caprock is observed in all three wells at about 120 to 180 feet bgs. A mud layer defining the bottom of the lower caprock is observed in Wells 13 and 15 around 370 to 390 feet bgs. These results indicate that the upper caprock interval is between 0 to 120 feet bgs, delineated by a mud layer between 120 to 180 feet bgs, below which is the lower caprock between 180 to 380 feet bgs.

The geophysical logs for Well 13 and Well 15 indicated that, below the casing, the upper volcanic aquifer is composed of interlayered weathered basalt (clay, saprolite, and basalt derived soil) and competent basalt, with competent basalt encountered at approximately 1,200 and 1,206 feet bgs, respectively. This interpretation is consistent with visual observation from recent down-hole video logs conducted in both wells.

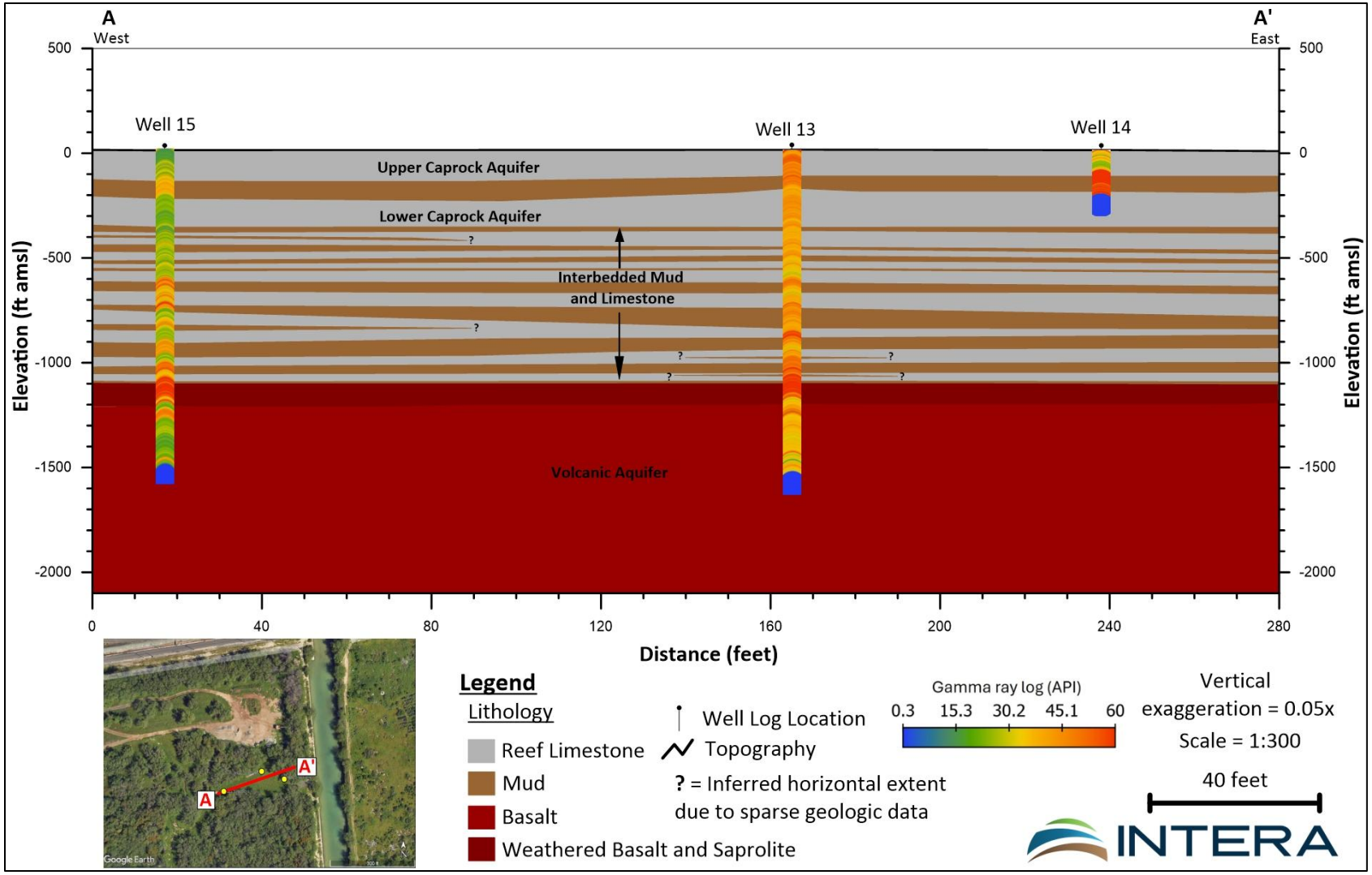


Figure 6-1. Geophysical logging gamma ray signal results and interpretation.

6.4 Final Outcome

The two hypotheses examined by the geophysical logging program include: (1) there is a clay layer at the base of caprock that acts as a low-permeability layer, providing hydraulic separation between the caprock injection zone and the volcanic production zone; and (2) there are additional mud layers within the caprock beneath the lower caprock that act as low-permeability zones, reducing the vertical permeability of the caprock and reducing downward migration of injectate from the caprock injection zone to the volcanic production zone, while simultaneously enhancing migration of injectate towards the ocean.

The borehole geophysical log results for Wells 13, 14, and 15 show a clearly defined gamma signature, which delineates several mud layers within the caprock and further delineates the lithology of the underlying volcanic aquifer. There is a correlation between the presence of the delineated mud at the three wells, which indicates that the mud layers act as confining layers/zones and hydraulically isolate the caprock from the underlying volcanic aquifer. These results also correlate with mud layer intervals identified on existing cross-sections. These findings support both hypotheses and are consistent with the interpretation of low permeability layers separating the caprock andvolcanic aquifers.

7.0 Aquifer Testing Program

7.1 Hypothesis and Outcome Scenarios

The primary objective of the aquifer testing program was to determine if sufficient hydraulic separation exists between the caprock injection zone aquifer and production zone volcanic aquifer. The collected aquifer test data were used to estimate the hydraulic properties of the caprock and volcanic aquifers and to determine if pumping from either aquifer results in a clearly observable response in the other formation.

The hypotheses for the aquifer testing program were as follows:

1. The production intervals within the volcanic aquifer (i.e., the open intervals within Well 13 and Well 15) are hydraulically separated from the caprock by a low-permeability layer or layers in the caprock and upper volcanic formation.
2. Pumping from the volcanic production wells results in no measurable drawdown within the caprock wells on-site.

Two possible outcomes were identified in the Final WP. The potential outcomes relative to the hypotheses are as follows. Actual results are also summarized.

Outcome 1: No measurable impact associated with pumping in either volcanic well is observed in any of the caprock wells during the pumping phase of the volcanic production well aquifer tests.

Result: The aquifer testing supports these hypotheses and is consistent with the assumption of a low permeability layer separating the caprock and volcanic aquifers.

Outcome 2: **Water levels in at least one caprock well experience a measurable change during the pumping phase of volcanic production well aquifer tests in a manner that indicates pumping from the volcanic aquifer has an impact on the caprock aquifer.**

Result: The aquifer testing refutes these hypotheses and indicates that the caprock and volcanic aquifers are not hydraulically connected.

7.2 Study Design

Aquifer testing took place at the KSDF project site from July 2025 to August 2025. INTERA subcontracted Precision Drilling LLC (Precision) to assist with field activities, including installation of the test pump and appurtenances and equipment operation and maintenance. Aquifer testing involved pumping the two BWS volcanic wells (Wells 13 and 15) and BWS caprock well (Well 14) at various intervals and pump rates. The purpose of this exercise was to determine if a measurable impact would occur in the caprock wells during pumping of the volcanic wells, and vice versa.

The aquifer testing program was conducted in three separate phases:

- Phase I - Well 15: step drawdown test, multi-cycle test (i.e., cycle test), and extended constant rate test.

- Phase II - Well 14: step drawdown test and extended constant rate test.
- Phase III - Well 13: step drawdown test, cycle test, and extended constant rate test.

The purpose of the step drawdown test was to provide preliminary information on well drawdown and salinity (chloride content) at progressively increasing pump rates. The step test involved pumping the well at four stepped rates for a minimum of one hour each. The step test results were used to evaluate the hydraulic performance of each pumping well and determine an appropriate constant pumping rate for each extended aquifer test.

The purpose of the cycle test was to evaluate tidal cycle influences on groundwater levels in the caprock and volcanic aquifers. The cycle test was performed only on the volcanic wells (Well 13 and Well 15) and involved turning the test pump on and off over the course of approximately 30 hours. The cycle test involved three separate pump cycles and three separate recovery cycles, coinciding with rising and falling tide. Water level drawdowns and recoveries were captured during periods of rising and falling tides, as well as precisely at a high or low tide.

The purpose of the extended constant rate test was to pump each well at high pumping rates designed to stress the aquifer as much as possible and maximize the potential to observe any influence on the other aquifer. The extended constant rate test involved controlled pumping for approximately 120 hours. The final rates of the extended constant rate test were determined based on the results of the step tests and on the capacity of available pumps.

Throughout each phase of the aquifer testing program, the field team recorded water level response in the pumping well and non-pumping wells. Recorded water levels included those for the two onsite environmental monitoring wells (MW 1 and MW 2) and in a nested caprock well at the neighboring Kalaeloa Partners facility (0.6 mi northwest of the KSDF project site). The nested well consists of two piezometers, constructed in the upper and lower caprock aquifers (**Table 7-1**).

A tide gauge, constructed of a perforated PVC pipe, was installed in the adjacent drainage canal to monitor tidal fluctuations throughout testing activities. The onsite tide gauge was installed to determine (1) if a tidal signal was observable in any of the caprock and/or volcanic wells and (2) if local tides were equivalent to the tides at the Honolulu tide gauge (Station ID#: 1612340). The Honolulu tide gauge is located in Honolulu Harbor, approximately 14 miles east of the KSDF project site. **Figure 7-1** shows a map of the wells utilized during aquifer testing activities and Table 7-1 describes the depth and open casing formation associated with each well.

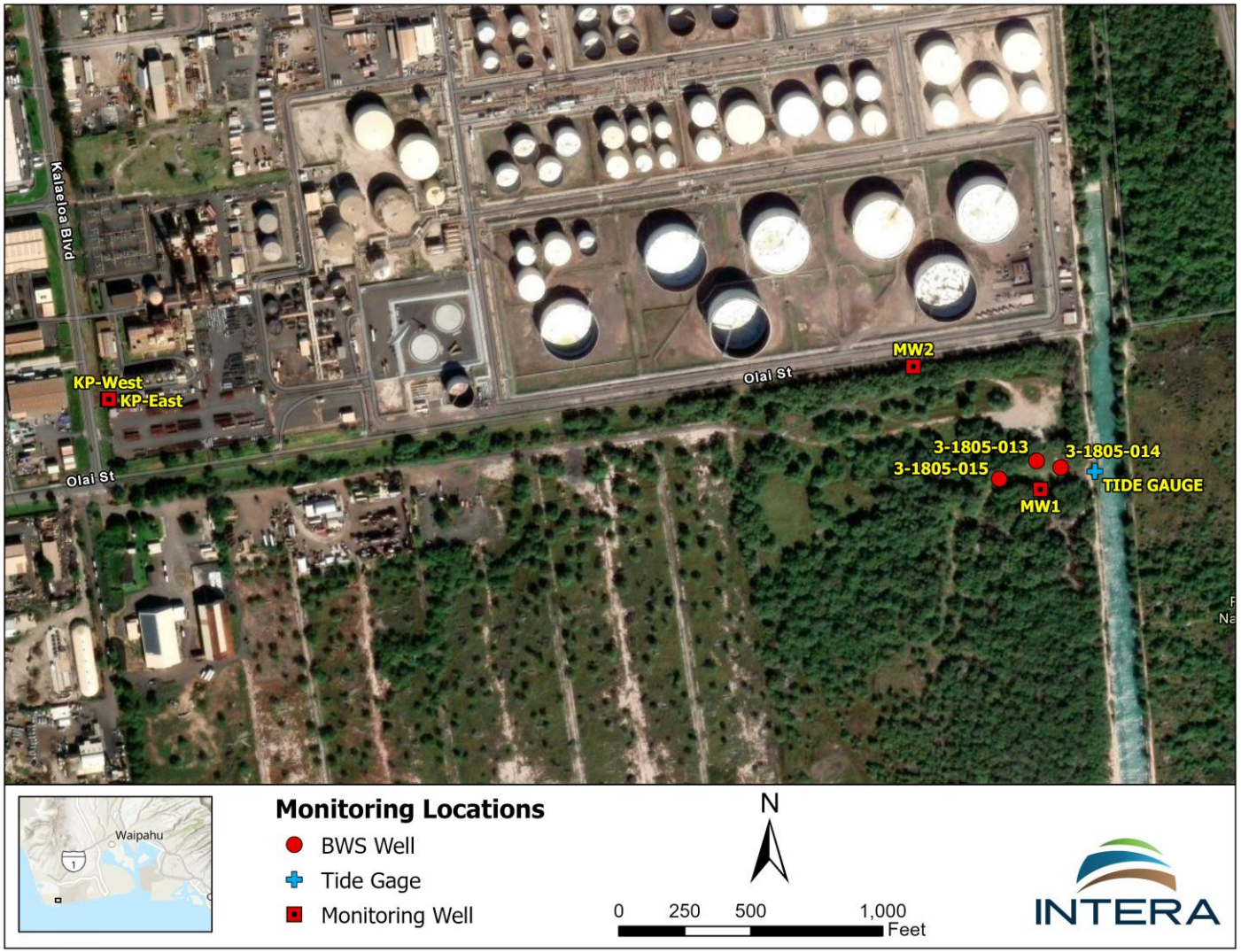


Figure 7-1. Monitoring Locations: transducer deployment locations.

Table 7-1. Depth and open casing formation of wells included in aquifer test.

Well Name	Open Casing Formation	Approximate Well Depth (feet bgs)
Well 13	Volcanic	1,599
Well 14	Upper and Lower Caprock	300
Well 15	Volcanic	1,556
MW 1	Upper Caprock	17
MW 2	Upper Caprock	17
KP-West	Upper Caprock	100
KP-East	Lower Caprock	274

7.2.1 Aquifer Testing Methodology

Static water levels were recorded for two months prior to testing to establish baseline conditions. Well 13, 14, 15, MW 1, and MW 2 were outfitted with down-hole pressure transducers (i.e., In-Situ unvented Level TROLL 700 data loggers). The transducers were initially programed to take pressure and temperature readings every one minute. The tide gauge was also instrumented with a Level TROLL 700 data logger, which was later replaced with a HOBO MX data logger. INTERA also deployed HOBO dataloggers in the off-site nested well, KP-West and KP-East. An In-Situ BaroTROLL data logger was placed on-site near Well 13 to measure atmospheric pressure. A week before testing, all transducers switched to logging pressure and temperature once every 30 seconds to pair manual measurements to levels recorded on the logger more accurately.

Water levels were also collected manually, using a Solinst water level meter and a Heron SkinnyDipper water level meter. Both meters were calibrated prior to collecting water level measurements. On occasion, the water level meters had difficulty measuring the depth to water due to high-conductivity water adhering to the downhole probe. This was rectified either by removing and rinsing the probe with fresh water and wiping off the saline water with a terry cloth or by lowering the sensitivity of the water level meter. Staff collected manual measurements for depth to water in the wells prior to deploying transducers, several times throughout data collection, and before and after they moved or reset the transducers.

Manual water level measurements were collected at Wells 13, 14, and 15 from a designated benchmark on top of the well's steel housing. For MW 1, MW 2, and the tide gauge, manual measurements were taken from a designated benchmark at the top of the PVC casing. Manual water level measurements at the tide gauge were corrected to account for the 22° angle of the PVC pipe against the side of the canal. All manual water level measurements were recorded in feet below top of housing or top of casing and later converted to feet msl.

Following equipment installation at the pumping well, manual water level measurements were collected from a perforated PVC chase tube, which was installed vertically and plumb within the well casing. A second chase tube was also installed in the pumping well to hold the transducer. Continuous manual water level measurements were recorded during pumping, as shown in **Table 7-2**.

Table 7-2. Manual water level interval frequency.

Time	Interval Frequency
Start – 10 minutes	30 seconds to 1 minute
10 - 20 minutes	Every 2 minutes
20 - 60 minutes	Every 5 minutes
60 - 120 minutes	Every 10 minutes
2 hours – 12 hours	Every 15 minutes
12 hours – 96 hours	Every 30 minutes
96 hours - 120 hours	Every 60 minutes

Manual water levels were recorded for at least one hour prior to beginning pumping to verify static baseline conditions. After pumping concluded, manual water levels were recorded for up to 2 hours to capture full recovery. Manual water level measurements are included in **Appendix F**. The pressure transducer recorded data at 30-second intervals throughout static, pumping, and recovery periods. Manual water level measurements were recorded as frequently as possible at both the non-pumping wells and tide gauge. Pressure transducers in the non-pumping wells also recorded data at 30-second intervals.

A new and recently calibrated digital flow meter, capable of measuring instantaneous flow rates and recording flow totalizer volumes, was installed at the wellhead of the pumping well. Field water quality parameters, including temperature and specific conductance, were also monitored during the pumping phases of each test to document water quality variations throughout testing. Field water quality data is included in Appendix F. Further discussion of water quality is in **Section 8.0**.

National Pollution Discharge Elimination System permit coverage is not required for well pump testing. For well pump testing, the discharger must take all measures necessary to prevent the discharge of pollutants from entering State waters. If the discharge is entering a stream, best management practices (BMPs) must be implemented to prevent the discharge from disturbing the clarity of the receiving water (DOH CWB, 2023). Given that there is no drainage infrastructure in the vicinity of the project site, field staff used temporary discharge piping to convey aquifer testing water to the adjacent canal. Velocity dissipation and sediment/erosion control BMPs were implemented to prevent the discharge water from disturbing the clarity of the receiving waters and from harming aquatic life in the canal (BWS, 2020). BMPs were monitored throughout testing activities and adjusted when necessary. A diagram of the discharge pipe configuration is shown in **Figure 7-2**. A photo log from the aquifer testing activities, including the discharge setup, is included in **Appendix G.**

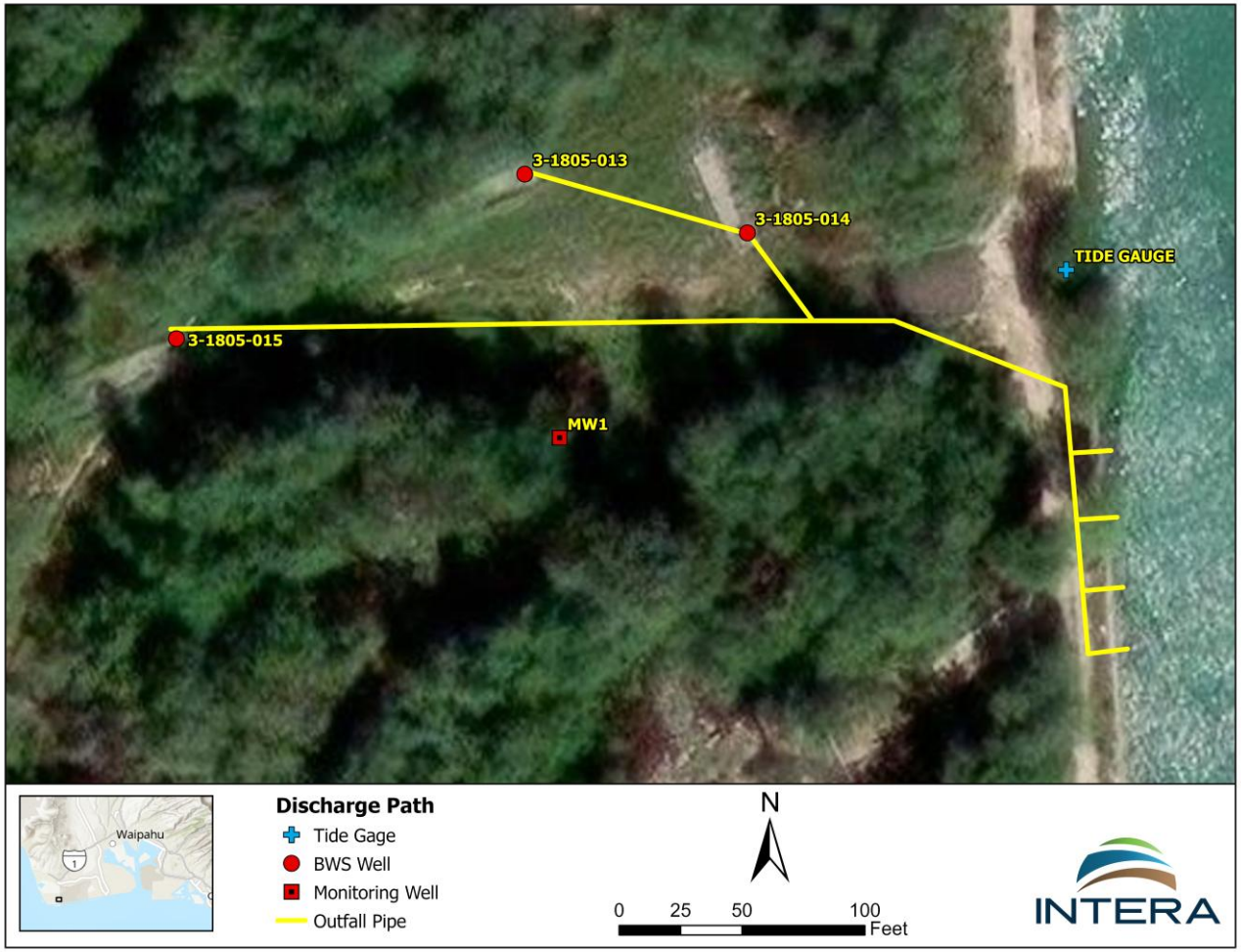


Figure 7-2. Discharge pipe configuration.

7.2.1.1 Phase I - Well 15

The first phase of aquifer testing commenced with a brief equipment test-run at Well 15 on July 2, 2025. The well was installed with a 4,000 gpm-rated temporary line shaft well pump. The pump was turned on for approximately 10 minutes to test the fittings and flow rate.

On July 3, 2025, the Well 15 step test commenced but was called off after 30 minutes due to a malfunction with the pump motor shaft. Precision implemented a temporary fix to the pump shaft, which allowed INTERA to collect water quality samples after three well casing volumes were purged. During this time, the pump was turned on for 30 minutes and was then shut off again after sampling was completed to allow Precision to start repairing the pump shaft. Well 15 was allowed to recover for 4 days before testing resumed.

The complete Well 15 step test took place on July 7, 2025 from 8:37 am to 1:55 pm, during a rising tide. Prior to beginning step testing, field staff measured the initial static water level in Well 15 at approximately 0.38 foot msl. Four rates were tested at Well 15, with each rate running for a minimum of 60 minutes. **Table 7-3** shows the stepped pump rates and the respective drawdown at the end of each step. After stabilization between each step, staff periodically checked the pump rate at the flow meter to ensure that the rate remained the same, or within a 5% deviation. After the completion of Step 4, the pump was shut off, and the well was allowed to recover for two days.

Table 7-3. Average drawdown during Well 15 step drawdown test.

Well 15		Average Pumping Rate (gpm)	Duration	Well 15 Water Level Drawdown (feet)
Step Test	Step 1	2224	8:37 – 10:01 72 minutes	4.75
	Step 2	2711	10:01 – 11:15 81 minutes	5.90
	Step 3	3301	11:15 – 12:28 75 minutes	7.26
	Step 4	3685	12:28 – 13:43 88 minutes	8.24

The Well 15 cycle test took place between July 9, 2025 and July 10, 2025. The cycle test involved three pump “on” and “off” cycles. The on and off cycle times were designed to coincide with rising and falling tides. Prior to the cycle test, field staff measured the initial static water level in Well 15 at 0.27 foot msl. The first pump “on” cycle ran from 9:53 am to 3:30 pm on July 9. This cycle coincided with a rising and falling tide. The pump was then shut off from 3:30 pm to 7:18 pm to monitor recovery during falling tide. The second pump “on” cycle ran from 7:18 pm to 7:22 am the following day, July 10. The second cycle pump was turned on at a tidal low and coincided with overnight rising and falling tide. The pump was then shut off at 7:22 am to 11:02 am to monitor recovery during a rising tide. The third pump “on” cycle occurred from 11:02 am to 3:01 pm on July 10. This cycle coincided with rising and falling tide. The pump was shut off at 3:01 pm as the final recovery cycle, capturing

falling tide. The pump rates, duration of each cycle, and associated drawdown is provided in **Table 7-4**. **Figure 7-3** shows NOAA tidal data at Honolulu Station ID#: 1612340 during the Well 15 cycle test, and corresponding pump on and off times.

Table 7-4. Cycle test for Well 15.

Well 15		Pump Status	Average Pumping Rate (GPM)	Duration	Approximate Tide Cycle	Well 15 Water Level Drawdown (feet)
Cycle Test	Cycle 1	On	3288	July 9, 2025 9:53 – 15:30	Rising and Falling Tide	7.41
		Off	0	July 9, 2025 15:30 – 19:18	Falling Tide	Recovery
	Cycle 2	On	3307	July 9, 2025 19:18 – July 10, 2025 7:22	Pump on at Tidal Low Rising and Falling Tide	7.53
		Off	0	July 10, 2025 7:22 – 11:02	Rising Tide	Recovery
	Cycle 3	On	3300	July 10, 2025 11:02 –15:01	Rising and Falling Tide	7.12
		Off	0	July 10, 2025 15:01	Falling Tide	Recovery

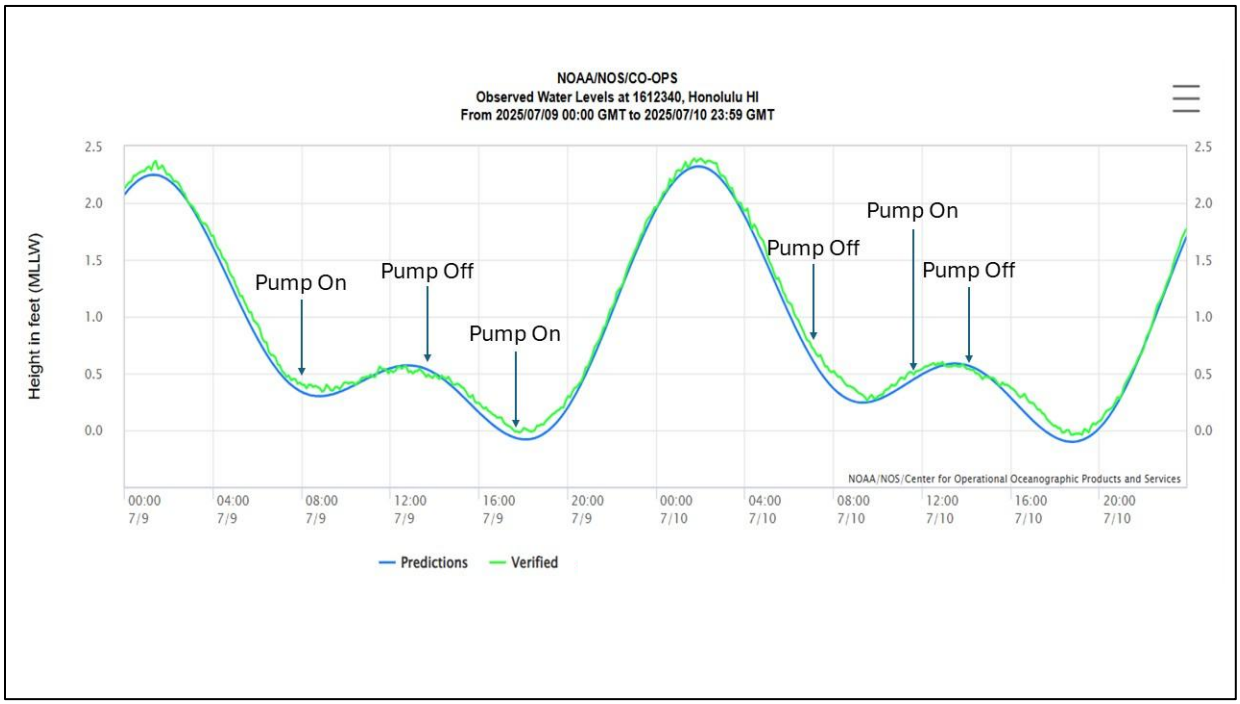


Figure 7-3. NOAA observed and predicted tides at Honolulu Tidal Station ID#: 1612340 from July 9, 2025 to July 10, 2025 during Well 15 cycle test (NOAA, 2025a).

The extended constant rate test started after Well 15 was allowed to recover for 42 hours. The Well 15 constant rate test was performed for 120 hours between 9:30 am on July 12, 2025, during a rising tide, and 10:04 am on July 17, 2025, during a falling tide. Prior to the constant rate test, field staff measured the initial static water level in Well 15 at approximately 0.30 foot msl. **Table 7-5** shows the average head drawdown during the constant rate test. Throughout the test, the pump rate was periodically checked at the flow meter to ensure that the rate remained the same, or within 5% deviation. Water quality samples were collected from Well 15 at the end of the constant rate test.

Table 7-5. Average drawdown during Well 15 constant rate test.

Well 15	Average Pumping Rate (GPM)	Duration	Well 15 Water Level Drawdown (feet)
120-Hour Constant Rate Test	3236	7/12/2025 9:30 - 7/17/2025 10:04	7.97

During Well 15 aquifer testing, field staff noted a steady decrease in pump rate throughout the running pump times. At the start of the 120-hour constant rate test, the pressure inside the outfall tube was measured using a small pressure gage next to the well head and tracked to see if the rate fluctuations corresponded with pressure fluctuations. Insufficient pressure data were tracked during the constant rate test to form a solid hypothesis, and staff made a more concerted effort to record pressure during the next phase of testing on Well 14.

7.2.1.2 Phase II - Well 14

The field team performed a brief equipment test on July 26, 2025 after Precision installed a 2,500 gpm-rated line shaft well pump in Well 14. The pump was turned on for approximately two hours to test the fittings and ensure there was flow from the well. The well was then allowed to recover for two days before the start of the Phase II step test on Well 14.

The Well 14 step test took place on July 28, 2025 from 9:32 am to 3:45 pm. Prior to step testing, field staff measured the initial static water level in Well 14 at approximately 1.53 feet msl. Four rates were tested at Well 14, with each rate running for a minimum of 60 minutes. **Table 7-6** shows the stepped pump rates, duration, and the respective drawdown at each step. After stabilization at each step, staff periodically checked the pump rate at the flow meter to ensure that the rate remained the same, or within 5% deviation. The pump rate continually dropped throughout the first step, from 1,033 gpm down to 981 gpm (just within the 5% stop-test margin) before the start of the next step. Staff controlled the rate by throttling the pump motor during the first step and between steps 3 and 4, but through a turn-gate—which varied the amount of discharge being pumped—between steps 1 and 2 and between steps 2 and 3. Water quality samples were collected from Well 14 at the beginning of the step test, after three well casing volumes were purged. After the completion of Step 4, the pump was shut off, and the well was allowed to recover for two days.

Table 7-6. Average drawdown during Well 14 step test.

Well 14		Average Pumping Rate (gpm)	Duration	Well 14 Water Level Drawdown (feet)
Step Test	Step 1	1120	9:32 – 11:00 85 minutes	0.47
	Step 2	1688	11:00 – 12:30 107 minutes	0.84
	Step 3	2230	12:30 – 14:16 89 minutes	1.15
	Step 4	2995	14:16 – 15:45 89 minutes	1.54

On July 29, 2025, the day after Well 14 step testing, a tsunami warning was issued for the state of Hawai'i after the magnitude 8.8 Kamchatka Earthquake in Russia. INTERA briefly considered pulling the tide gauge from the canal but decided to leave it running for the safety of all staff involved. The tsunami's arrival was recorded in all transducer data on site at 7:34 pm on July 29, 2025. Physical impact from the tsunami was minimal across the state, with waves of less than 5.7 feet in amplitude along the south coast where the KSDF site is located (NOAA, 2025b). Interestingly, the transducers deployed in the volcanic aquifer wells picked up a signal in the groundwater level that corresponds with the time of the arrival of the shear wave (s-wave) from the earthquake, while transducers deployed in caprock aquifer wells showed no change in water level until the tsunami hit several hours later. S-waves are unable to propagate in non-solid mediums, but some recent studies have found the

wave type to be able to propagate in confined settings (Zhang et al., 2021). The effects of the tsunami and water level observations are further explained in **Section 7.4.6**.

The Well 14 constant rate test was performed for 120 hours and commenced the following morning, on July 30, 2025 at 9:32 am, during low tide. The test concluded at 9:53 am on August 4, 2025, during high tide. Prior to the constant rate test, field staff measured the initial static water level in Well 14 at approximately 1.39 feet msl. **Table 7-7** shows the average pumping rate and head drawdown during the test. Throughout the test, staff checked the pump rate periodically at the flow meter to ensure that the rate remained the same, or within 5% deviation. Water quality samples were collected from Well 14 at the end of the constant rate test.

Table 7-7. Average drawdown during Well 14 constant rate test.

Well 14	Average Pumping Rate (gpm)	Duration	Well 14 Water Level Drawdown (feet)
120-Hour Constant Rate Test	2470	7/30/2025 9:32 - 8/4/2025 9:49	1.82

7.2.1.3 Phase III - Well 13

Precision installed the 2,500 gpm capacity line shaft well pump into Well 13 and tested the pump for around 15 minutes at 2,500 gpm to verify proper installation. Well 13 was then allowed to recover for three days prior to the start of the step drawdown test.

The Well 13 step test was performed on August 11, 2025 from 9:54 am to 3:44 pm, during a rising tide. Prior to the step test, field staff measured the initial static water level in Well 13 at 0.92 foot msl. Four rates were tested at Well 13, with each rate running for a minimum of 60 minutes. **Table 7-8** shows the stepped pump rates, duration, and the respective drawdown at each step. After stabilization at each step, staff periodically checked the pump rate at the flow meter to ensure that the rate remained the same, or within 5% deviation. Water quality samples were collected from Well 13 at the beginning of the step test, after three well casing volumes were purged.

Table 7-8. Average drawdown during Well 13 step test.

Well 13		Average Pumping Rate (gpm)	Duration	Well 13 Water Level Drawdown (feet)
Step Test	Step 1	1552	9:46 – 11:23 97 minutes	2.39
	Step 2	1977	11:23 – 13:06 103 minutes	3.19
	Step 3	2485	13:06 – 14:32 86 minutes	4.09
	Step 4	3119	14:32 – 15:46 74 minutes	5.25

The Well 13 cycle test took place between August 13, 2025 and August 14, 2025. Similar to Well 15, the cycle test involved three pump "on" and "off" cycles. The on and off cycle times were designed to coincide with rising and falling tides. Prior to the cycle test, field staff measured the initial static water level in Well 13 at 0.59 foot msl. The first pump "on" cycle ran from 10:00 am to 3:01 pm on August 13. This cycle coincided with a rising tide. The pump was shut off from 3:01 pm to 7:00 pm to monitor recovery during a falling tide. The second pump "on" cycle ran from 7:00 pm to 7:08 am the following day, August 14. The pump was shut off at 7:08 am until 11:00 am to monitor recovery, also during a falling tide. The third pump "on" cycle occurred from 11:00 am to 4:02 pm. This cycle coincided with rising tides. Finally, the pump was shut off at 4:02 pm as the final recovery cycle. The pump rates, duration of each cycle, and associated drawdown are provided in **Table 7-9**. **Figure** 7-4 shows NOAA tidal data at Honolulu Station ID#: 1612340 during the Well 13 cycle test, and corresponding pump on and off times.

Table 7-9. Cycle Test for Well 13.

Well 13		Pump Status	Average Pumping Rate (gpm)	Duration	Approximate Tide Cycle	Well 13 Water Level Drawdown (feet msl)
Cycle Test	Cycle 1	On	2774	August 13, 2025 10:00 – 15:01	Pump on at Tidal Low Rising Tide	4.60
		Off	0	August 13, 2025 15:01 – 19:00	Rising Tide	Recovery
	Cycle 2	On	2771	August 13, 2025 19:00 – August 14, 2025 7:08	Rising and Falling Tide	4.78
		Off	0	August 14, 2025 7:08 – 11:00	Falling Tide	Recovery
	Cycle 3	On	2767	August 14, 2025 11:00 – 16:02	Pump on at Tidal Low Rising Tide	4.35
		Off	0	August 14, 2025 16:02	Falling Tide	Recovery

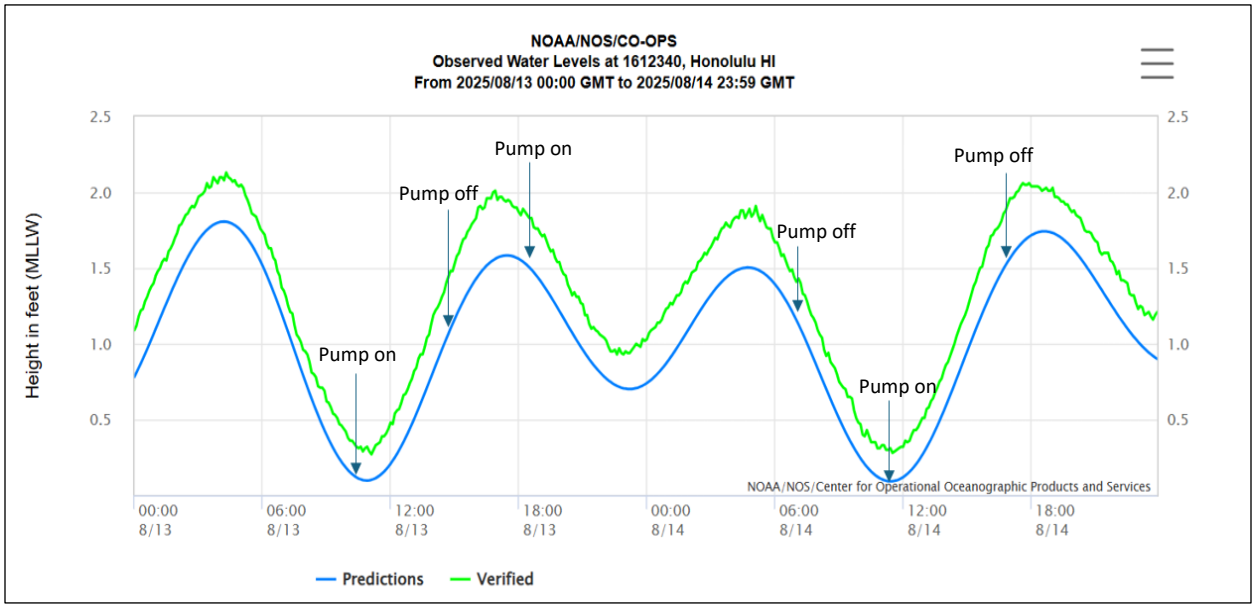


Figure 7-4. NOAA observed and predicted tides at Honolulu Tidal Station ID#: 1612340 from August 13, 2025 to August 14, 2025 during the Well 13 cycle test (NOAA, 2025a).

The extended constant rate test in Well 13 occurred over the course of 120 hours, between 9:59 pm on August 16, 2026, during a falling tide, and 10:10 am on August 21, 2025, during a rising tide. Prior to the constant rate test, field staff measured the initial static water level in Well 13 at 0.52 foot msl. The test was performed at an average sustained rate of 2,805 gpm. **Table 7-10** shows the average head drawdown during the 2,805 gpm constant rate test. Throughout the duration of the test, staff periodically checked the pump rate at the flow meter to ensure that the rate remained the same, or within 5% deviation. Upon completion of the constant rate test, the pump was shut off, and the well was allowed to recover for 24 hours. Water quality samples were collected from Well 13 at the end of the constant rate test.

Table 7-10. Average drawdown during Well 13 constant rate test.

Well 13	Average Pumping Rate gpm)	Duration	Well 13 Water Level Drawdown (feet)
120-Hour Constant Rate Test	2805	8/16/2025 9:59 - 8/21/2025 10:04	5.53

7.3 Data Processing

The transducers recorded both 60-second and 30-second water level measurements at different times during monitoring. The 30-second measurements were reviewed and filtered to 60 seconds for display and analysis. Complete 60-second records for each observation and pumping well were compiled into continuous time series records. Selected records are available in **Appendix H**; electronic data are available upon request. All data from the unvented pressure transducers were corrected by removing the barometric pressure recorded at the BaroTROLL data logger before converting the measured pressure to a water level.

Manual measurements of water elevation were used to tie the transducer records to elevations. The manual measurements varied in quality throughout the monitoring period. The manual probes were designed for use in fresh water and proved difficult to use in the salt water at the site. Custom probes designed for salt water were unobtainable due to time constraints. The quality of manual measurements also depended on the personnel making the measurements. Typically, INTERA measurements occurred during working hours and Contractor measurements occurred overnight during pumping tests, and the INTERA measurements were of higher quality.

Figure 7-5 and **Figure 7-6** show two examples of how transducer data were matched to manual measurements. When using the manual measurements to tie the transducer data to elevation, all manual measurements for the entire monitoring period were assessed for quality, and a subset of the high-quality data was used.

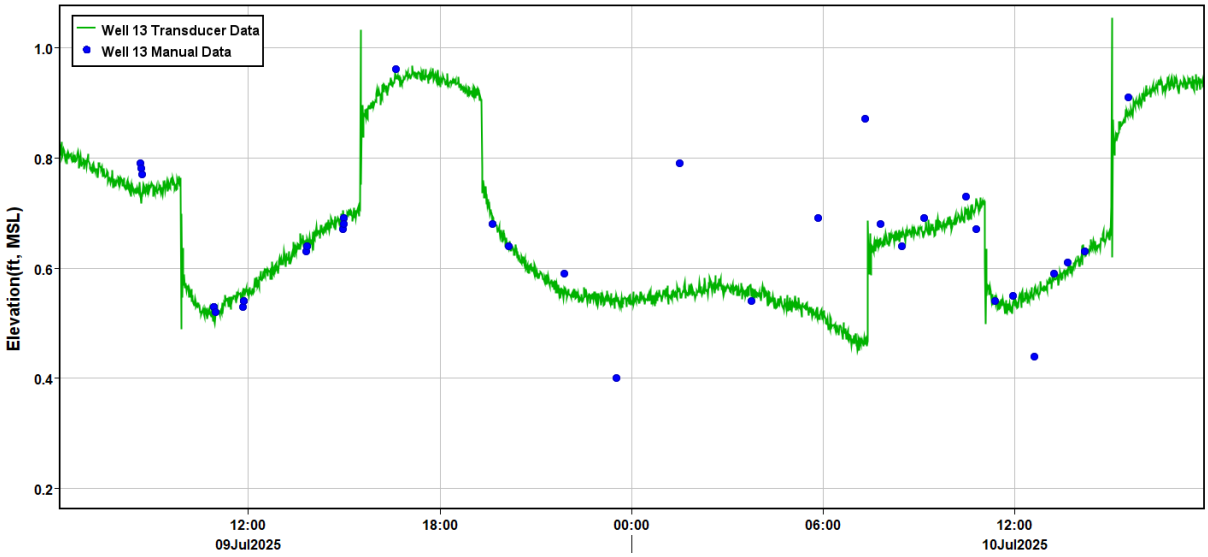


Figure 7-5. Example: manual measurements of water elevation and transducer data shifted to fit the manual measurements for Well 13. The time series shown corresponds to cycle testing of Well 15.

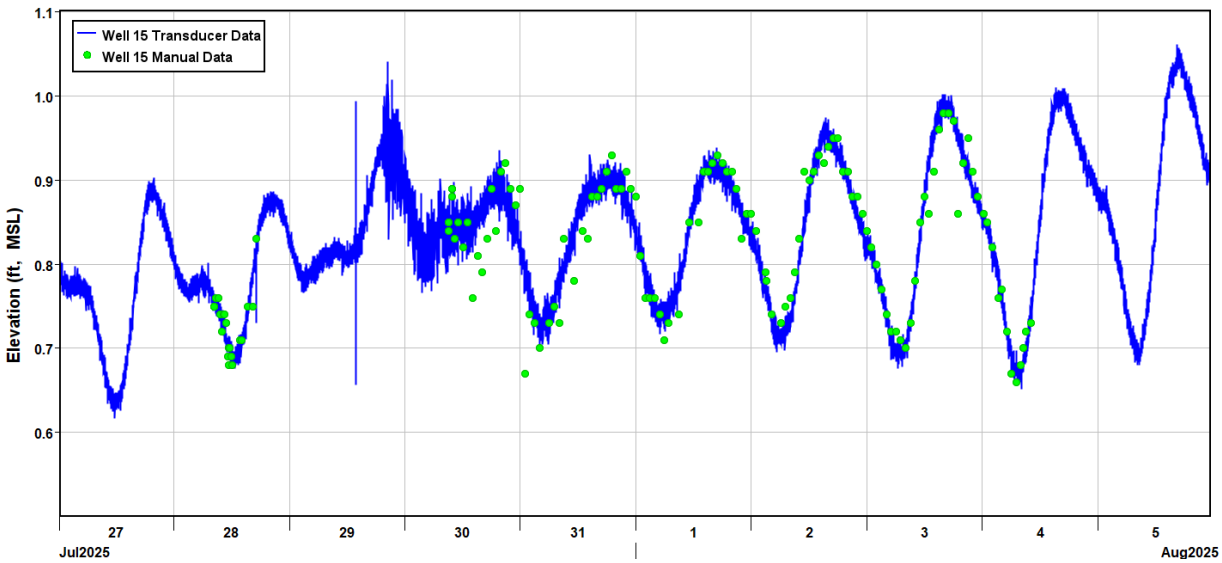


Figure 7-6. Example: manual measurements of water elevation and transducer data fit to the manual measurements for Well 15. The time series shown corresponds to the step test and constant rate test of Well 14.

7.4 Monitoring Results

Figure 7-7 and **Figure 7-8** provide an overview of the water levels recorded during the entire monitoring period. Figure 7-7 includes water levels in Wells 13, 14, and 15 along with the pumping rates for each of the three wells. Within each record, there are gaps where transducers were pulled to prepare each well for the pumping tests and other issues. Figure 7-8 presents the water level data from the upper caprock wells (MW 1 and MW 2).

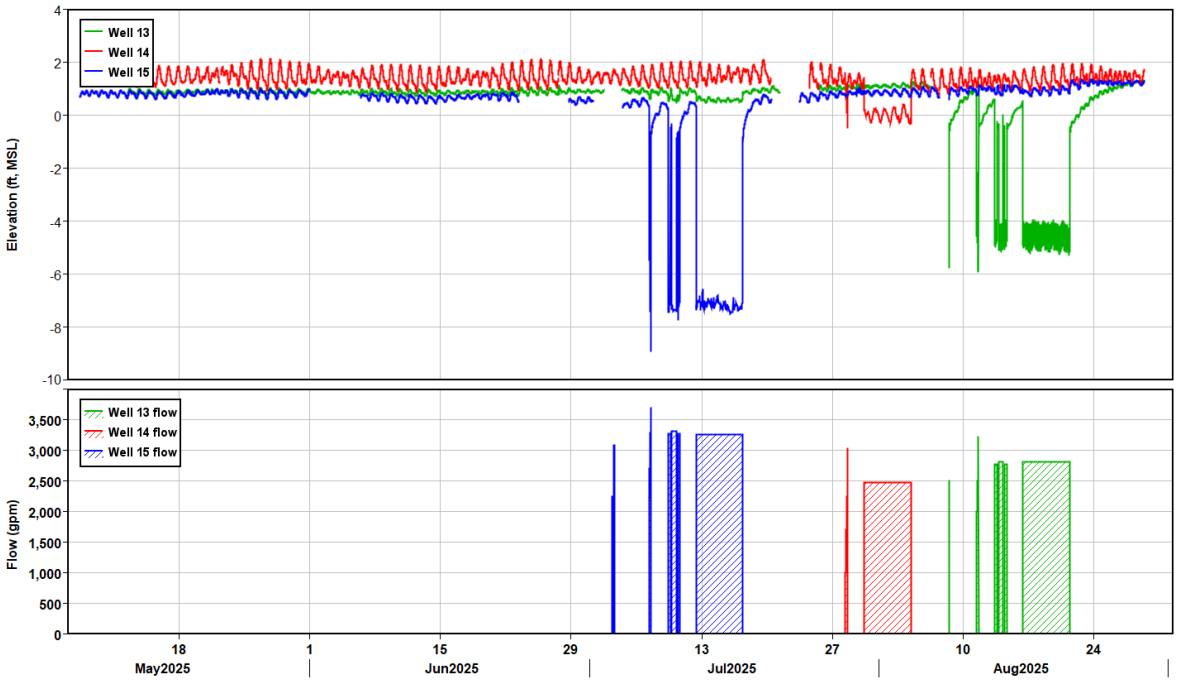


Figure 7-7. An overview of the water levels and pumping rates in Wells 15, 14, and 13 throughout the testing period.

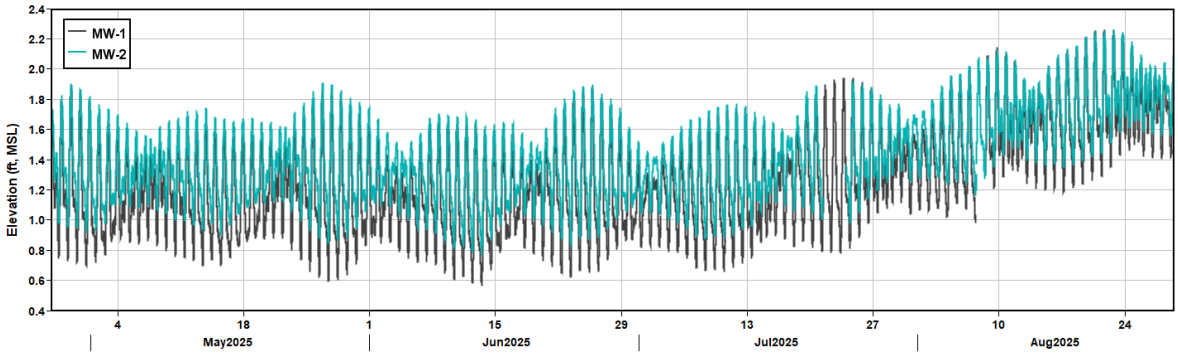


Figure 7-8. Water levels recorded in MW 1 and MW 2 throughout the testing period.

Tidal data were recorded by the tide gauge and compared to data collected by the Honolulu gauge. **Figure 7-9** through **7-11** present tidal data from the NOAA Honolulu gauge and the tide gauge. Figure 7-9 shows the tidal data from the Honolulu gauge for the entire monitoring period. **Figure 7-10** compares Honolulu data with the high-frequency data recorded at the tide gauge. The gray line represents water level in the channel, which varies in a wide band due to wind and wave action in the channel. The cyan line represents the onsite data smoothed over a 61-minute period. The Honolulu data match the smoothed site data well with approximately a 0.5-foot vertical offset. **Figure 7-11** shows the data before and after the tsunami on July 29.

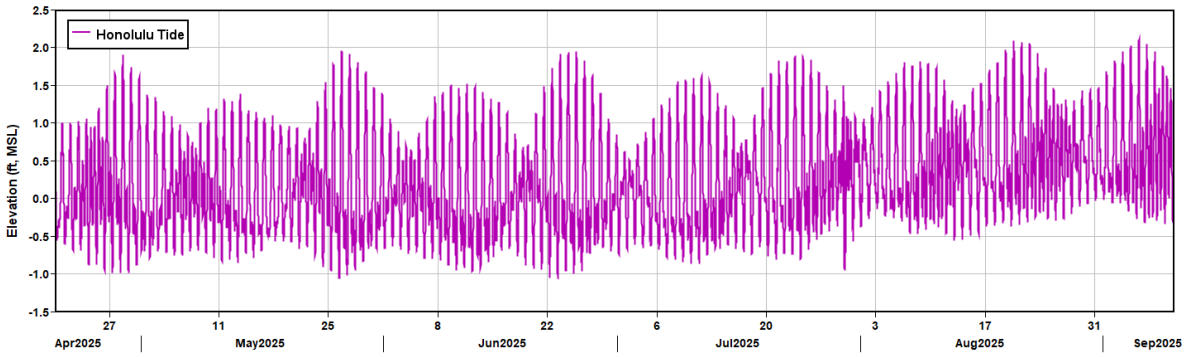


Figure 7-9. Tidal data recorded at the Honolulu gauge ID#: 1612340.

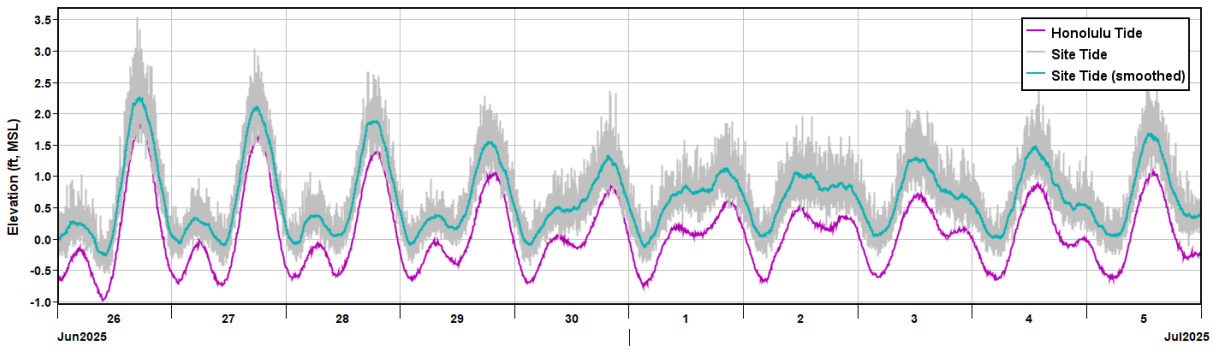


Figure 7-10. Comparison of the Honolulu tide, measurements from the onside tide gauge, and the onsite data smoothed over 61 minutes.

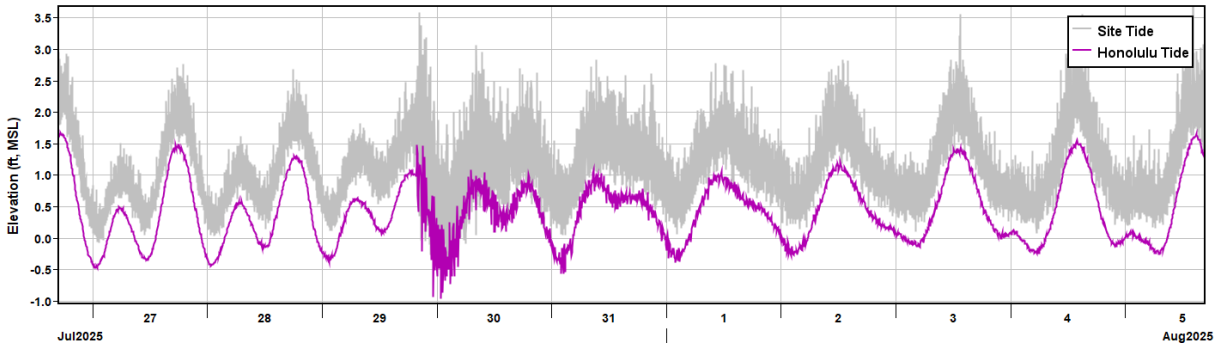


Figure 7-11. Tidal data recorded following the tsunami.

7.4.1 Well 15 Testing

During testing of Well 15, the transducer in the pumped well showed significant fluctuations of up to 4 feet throughout the test, while manual measurements showed very stable water levels in the well. This is illustrated in **Figure 7-12** during the constant rate test. The reason for the fluctuations in the transducer readings is unknown. In addition, when the pump was shut off, there was a surge in the well caused by backflow into the well. This is observable in Figure 7-12 at the end of the test, in both

the transducer and manual records. In processing the time series data, the transducer records for Well 15 were replaced with manual measurements when Well 15 was pumping during the step test, the cycle test, and the constant-rate test; the manual measurements of the backflow into the well were removed.

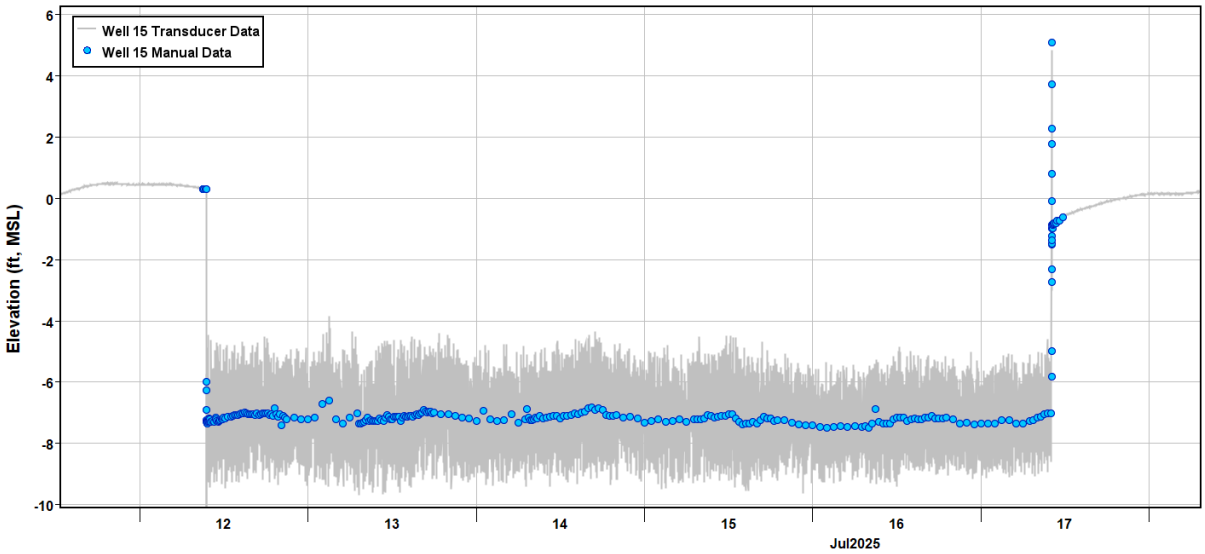


Figure 7-12. Fluctuations in transducer data during the 120-hour constant rate test of Well 15.

Figure 7-13 and **Figure 7-14** present water levels in Wells 13, 14, and 15 during the full testing period for Well 15, including the step test, the cycle test, and the 120-hour constant rate test. Figure 7-13 shows distinct drops and rises in water levels in Well 13 of approximately 0.35 foot in response to pumping in Well 15. In contrast, Figure 7-14 shows no clear indication of an immediate or long-term response in Well 14 to pumping in Well 15.

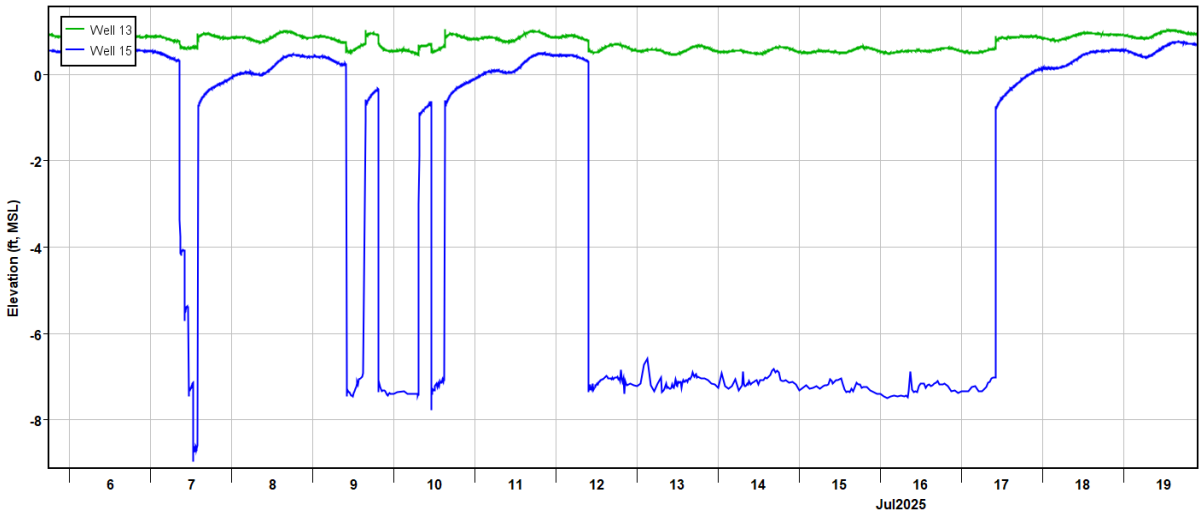


Figure 7-13. Water levels in Wells 13 and 15 during testing of Well 15.

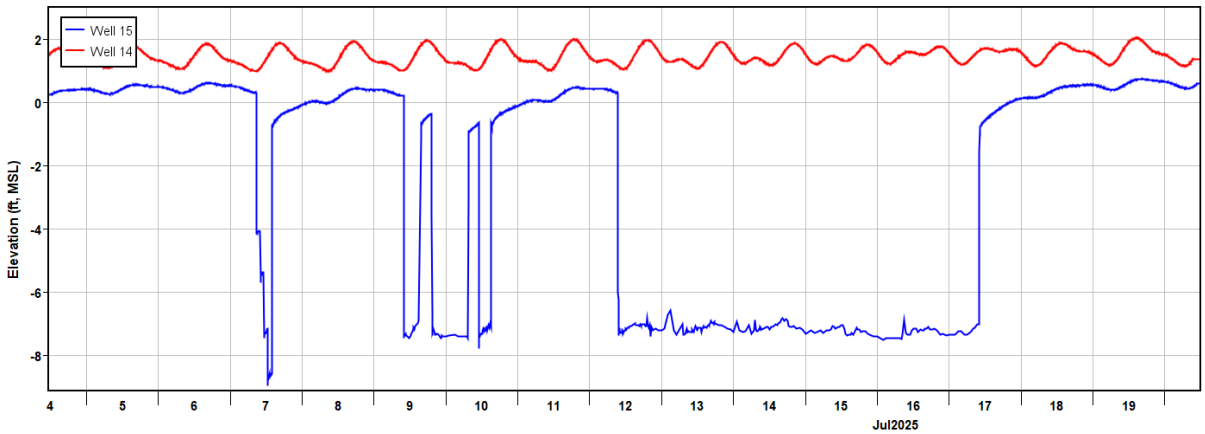


Figure 7-14. Water levels in Wells 14 and 15 during testing of Well 15.

Combined water levels for Wells 13, 14, and 15 during the step test and cycle test are shown in **Figure 7-15** and **Figure 7-16**.

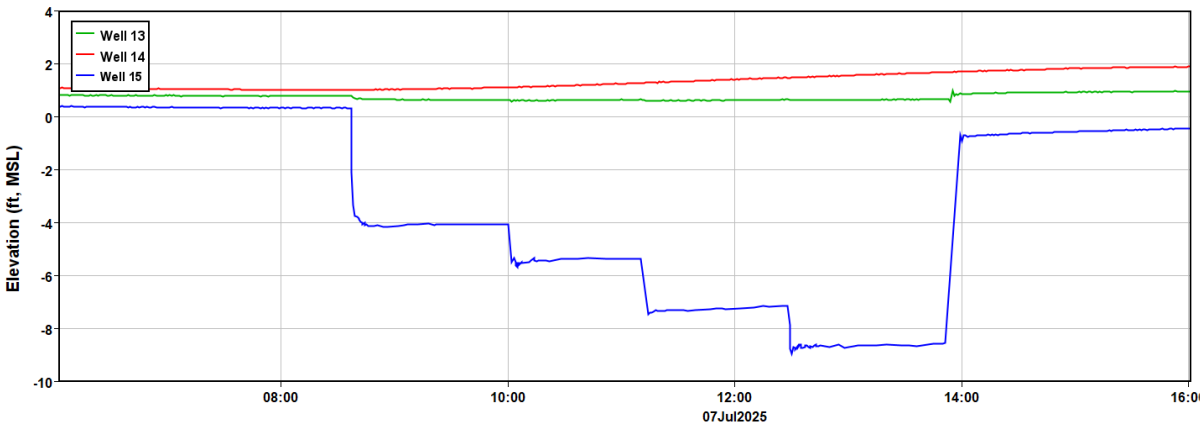


Figure 7-15. Water levels during the step test for Well 15.

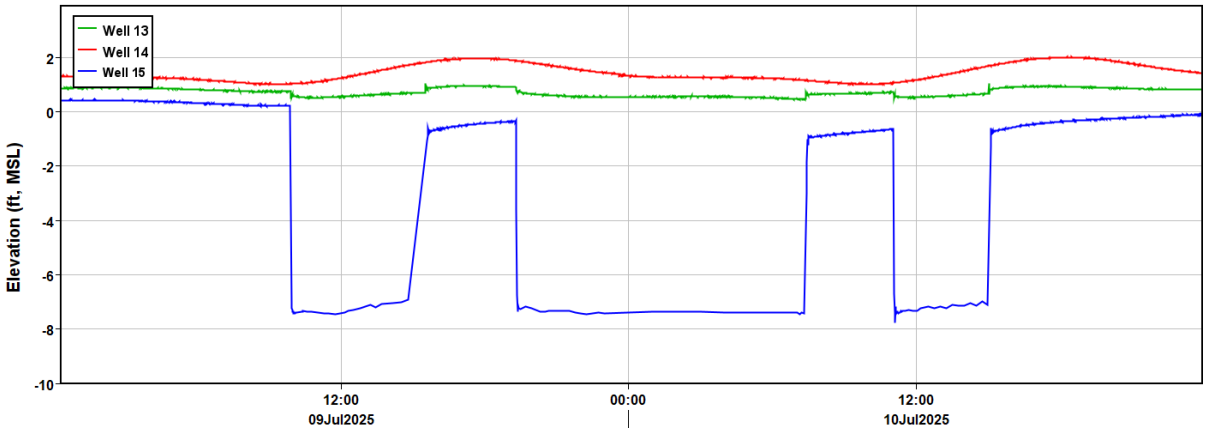


Figure 7-16. Water levels during the cycle test for Well 15.

Figure 7-17 shows a detailed view of the response in Wells 13 and 14 to pumping in Well 15 at the start of the 120-hour constant rate test and at the end of the test. Again, an immediate response is seen in Well 13 with no response in Well 14.

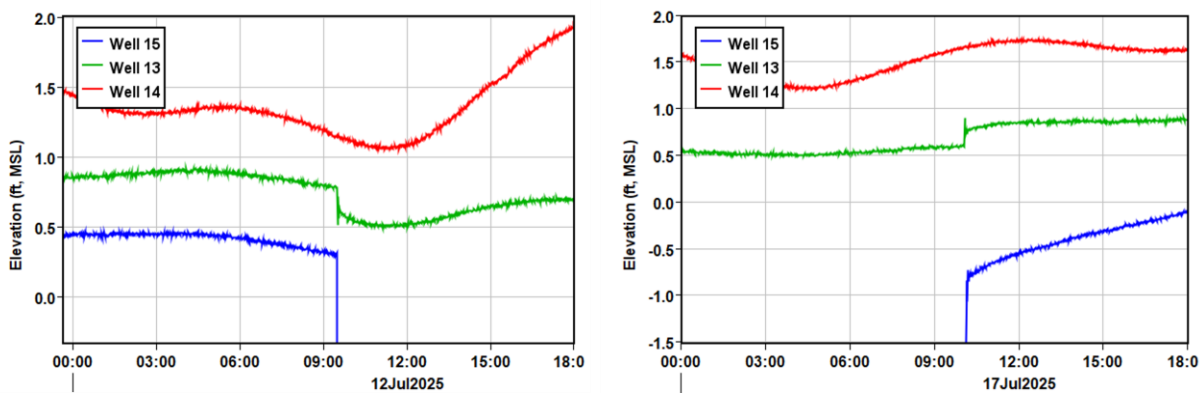


Figure 7-17. Detailed view of water levels at the start (left) and end (right) of the 120-hour constant rate test of Well 15.

7.4.2 Well 14 Testing

During testing of Well 14, the transducer in the pumped well again showed significant fluctuations throughout testing, while manual measurements showed a very stable water level in the well. As with Well 15, the transducer records for Well 14 were replaced with manual measurements during periods of pumping when processing the data.

Testing of Well 14 included a step test and a 120-hour constant rate test. The tsunami struck the site just prior to the 120-hour constant rate test. **Figure 7-18** shows water levels in Well 14 and Well 15 during the testing. **Figure 7-19** shows the water levels in Well 14 and Well 13. Neither figure shows a clear short-term or long-term response of water levels in the deep volcanic wells to pumping in the caprock. Details of the step test are presented in **Figure 7-20**.

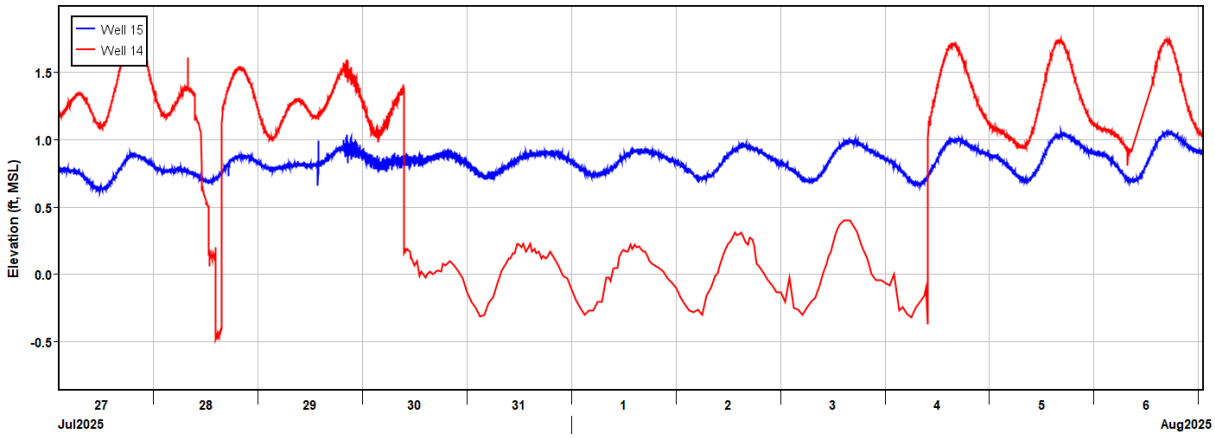


Figure 7-18. Water levels in Wells 14 and 15 during testing of Well 14.

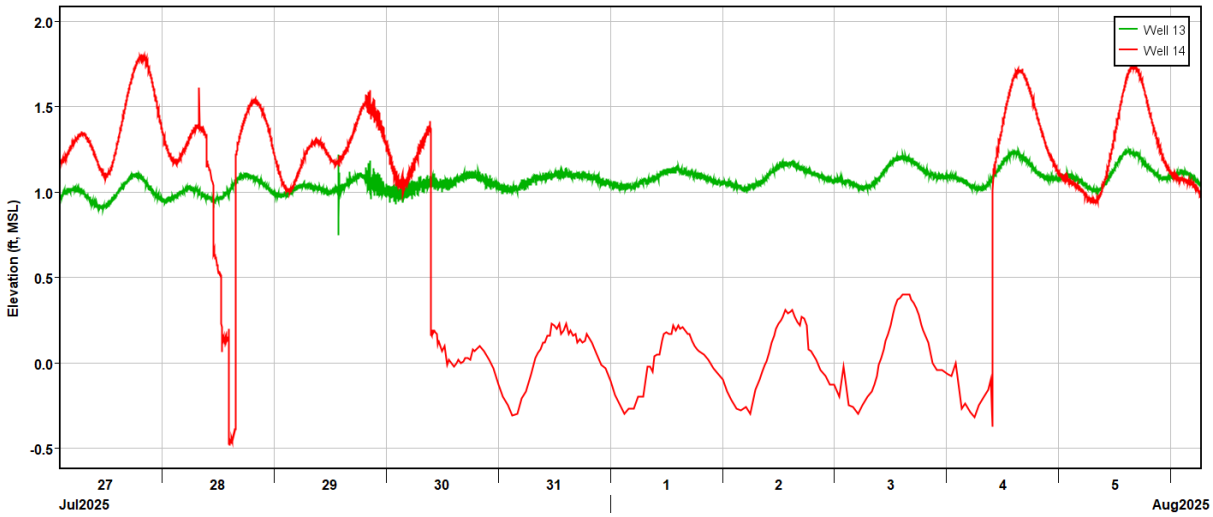


Figure 7-19. Water levels in Wells 14 and 13 during testing of Well 14.

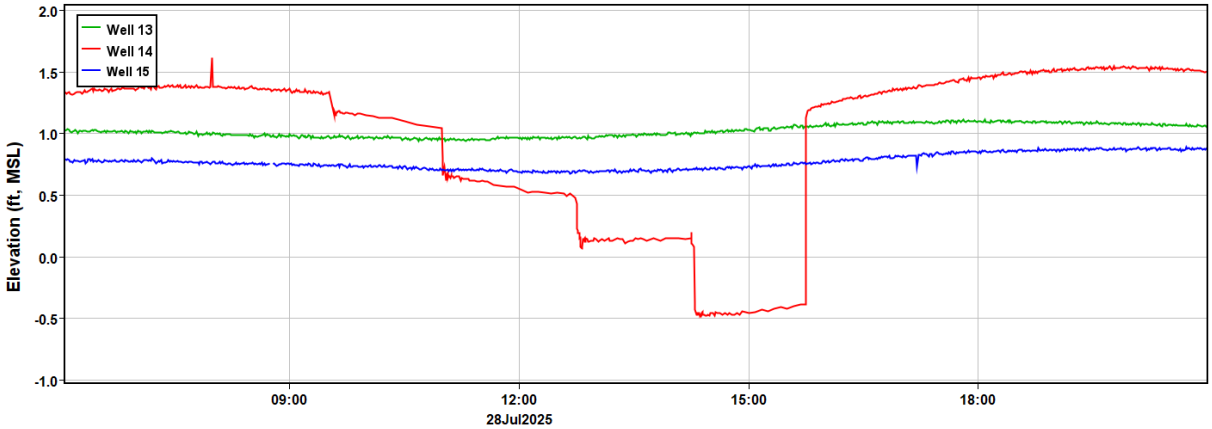


Figure 7-20. Water levels during the step test of Well 14.

Figure 7-21 shows a detailed view of the response in Wells 13 and 15 to pumping in Well 14 at the start of the 120-hour constant rate test and at the end of the test. At the start of the test, high-frequency water level fluctuations of similar amplitude are observable in all three wells; these fluctuations are a result of the tsunami.

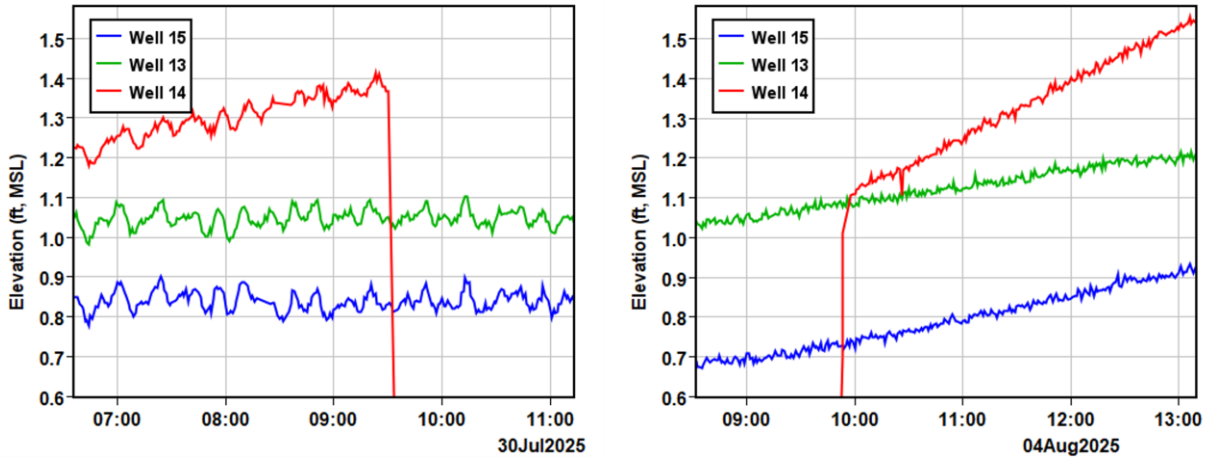


Figure 7-21. Details of water levels at the start (left) and end (right) of the 120-hour constant rate test of Well 14.

Figure 7-22 shows the response in the upper caprock well, MW 1, to pumping in Well 14, the deeper caprock well. A small but clear response is evident in the detailed plots in **Figure 7-23**, which show the start and end of the 120-hour constant rate test. Water levels in MW 2 showed no response to pumping in Well 14. Note that MW 1 is approximately 125 feet from Well 14, and MW 2 is approximately 530 feet from Well 14.

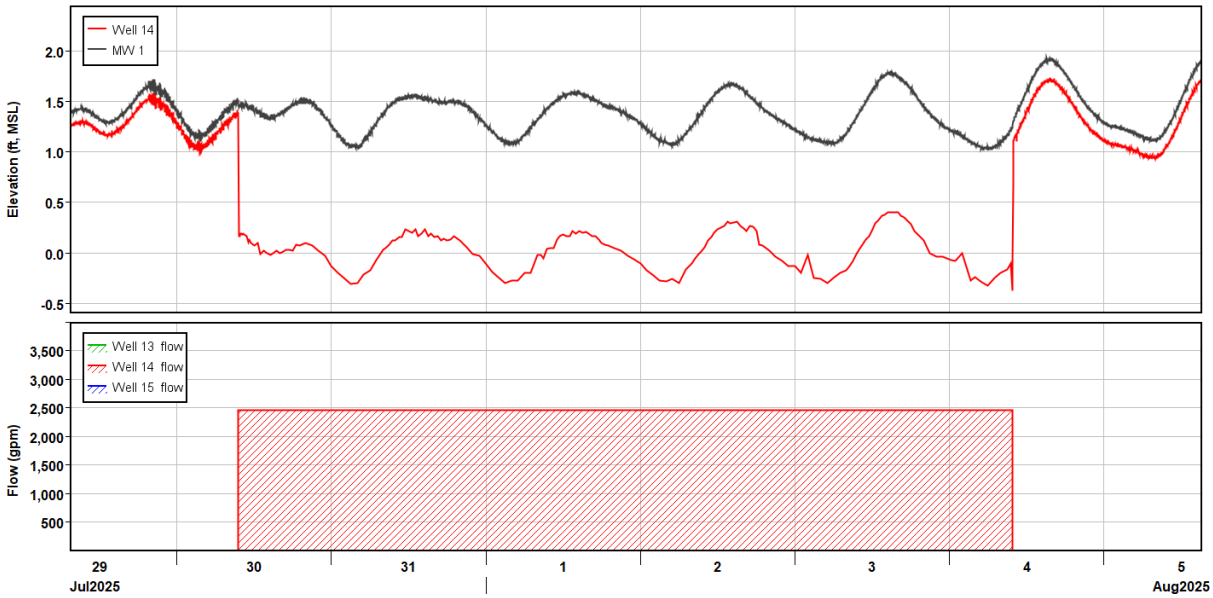


Figure 7-22. Water levels in Well 14 and MW 1 during testing of Well 14.

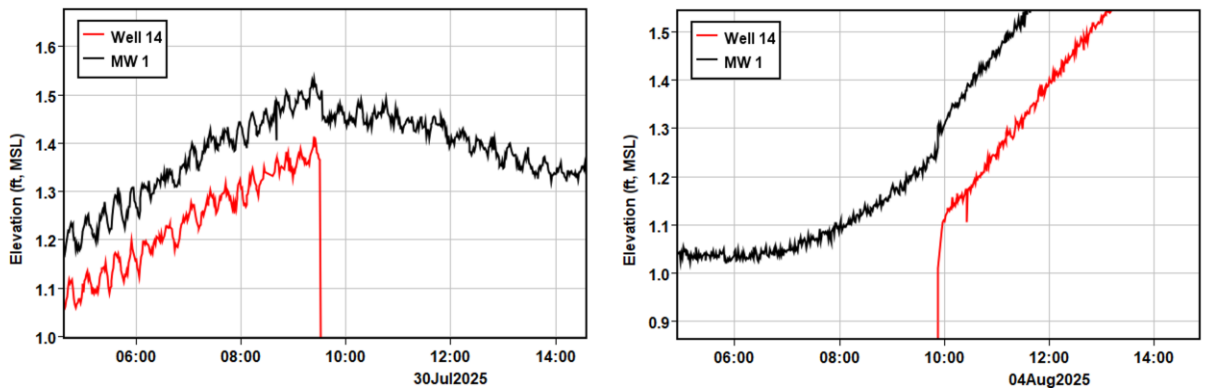


Figure 7-23. Details of water levels in MW 1 and Well 14 at the start (left) and end (right) of the 120-hour constant rate test of Well 14.

7.4.3 Well 13 Testing

Pumping in Well 13 also produced fluctuations in transducer readings for pumping Wells 14 and Well 15. However, the fluctuations were much smaller in magnitude, so the transducer data were included in the data processing while Well 13 was pumping. **Figure 7-24** shows the water levels recorded in Well 13 and Well 15 during testing of Well 13. A clear and immediate jump is observable in water levels in Well 15 in response to pumping of Well 13. **Figure 7-25** shows water levels in caprock wells, Well 14 and MW 1, during pumping of Well 13 and no clear response is visible. **Figure 7-26** through **7-28** show details of water levels in Wells 13, 14 and 15 during the step test, cycle test, and at the start and end of the 120-hour constant rate test. Again, a clear signal is seen in Well 15 while no signal is seen in Well 14.

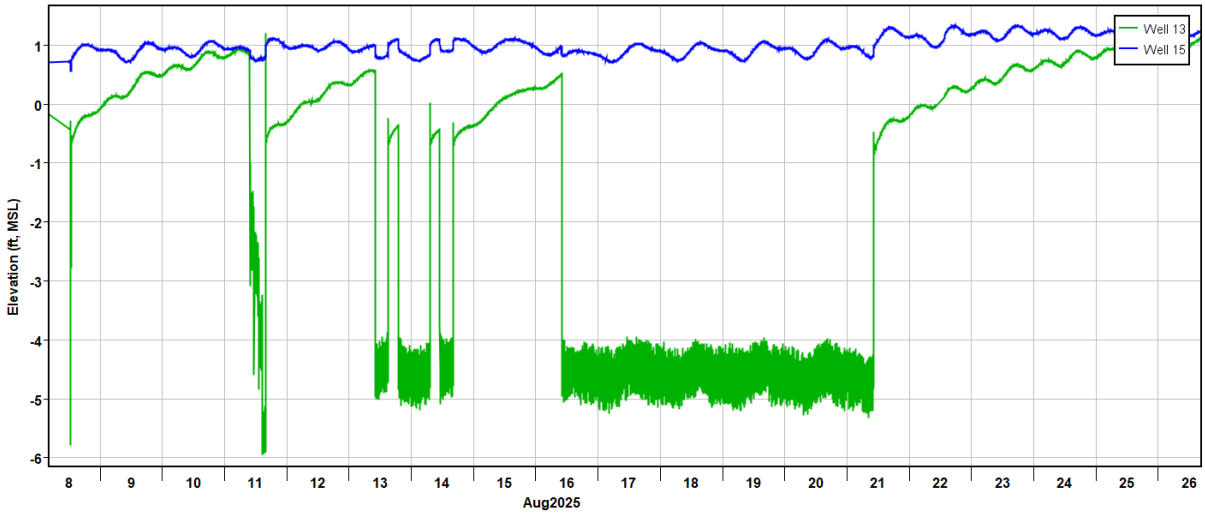


Figure 7-24. Water levels in Wells 13 and 15 during testing of Well 13.

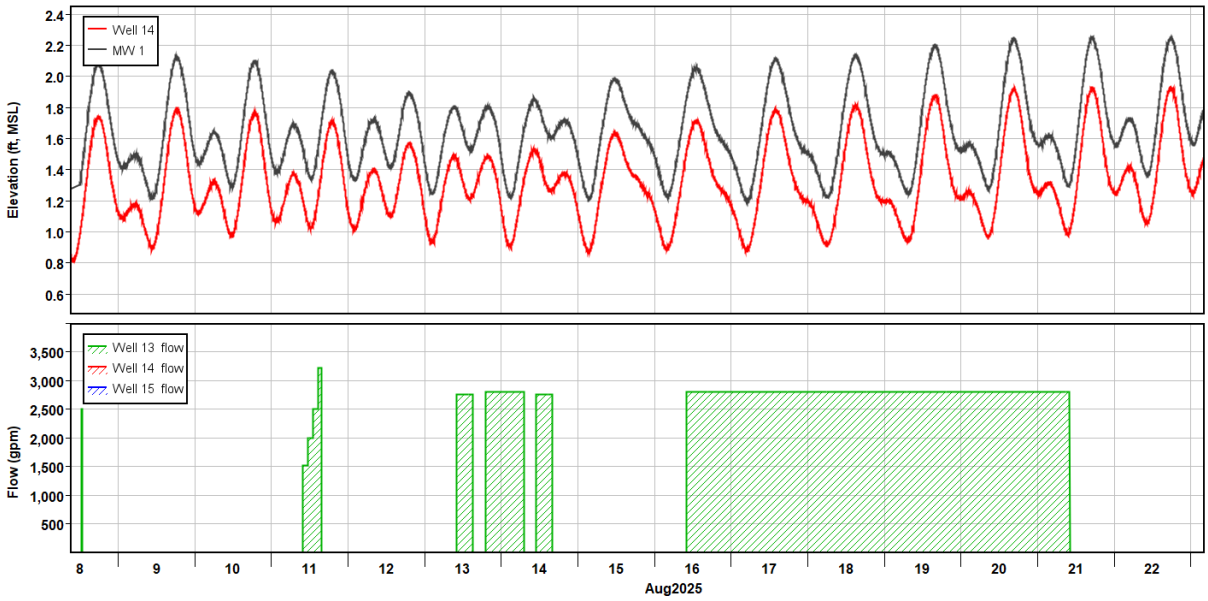


Figure 7-25. Water levels in Well 14 and MW 1 during testing of Well 13.

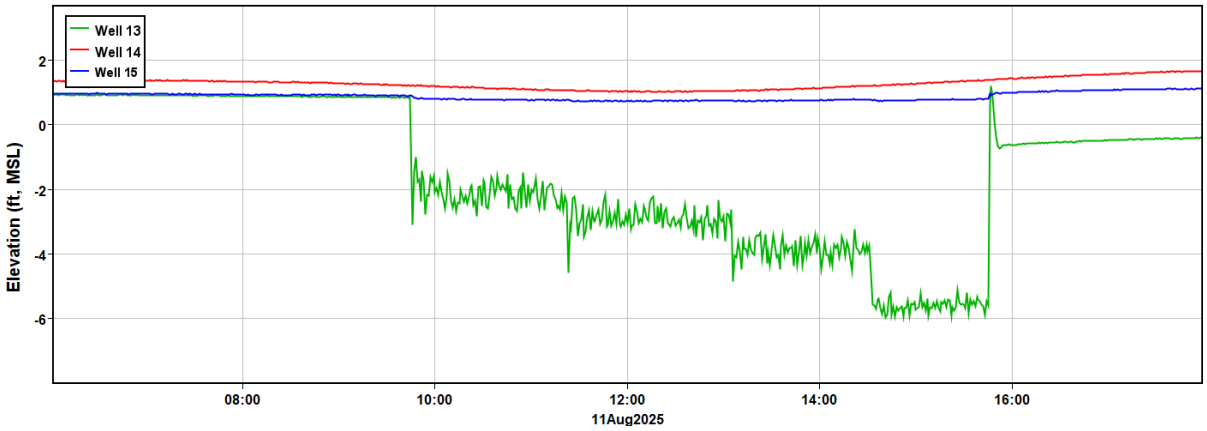


Figure 7-26. Water levels during the step test of Well 13.

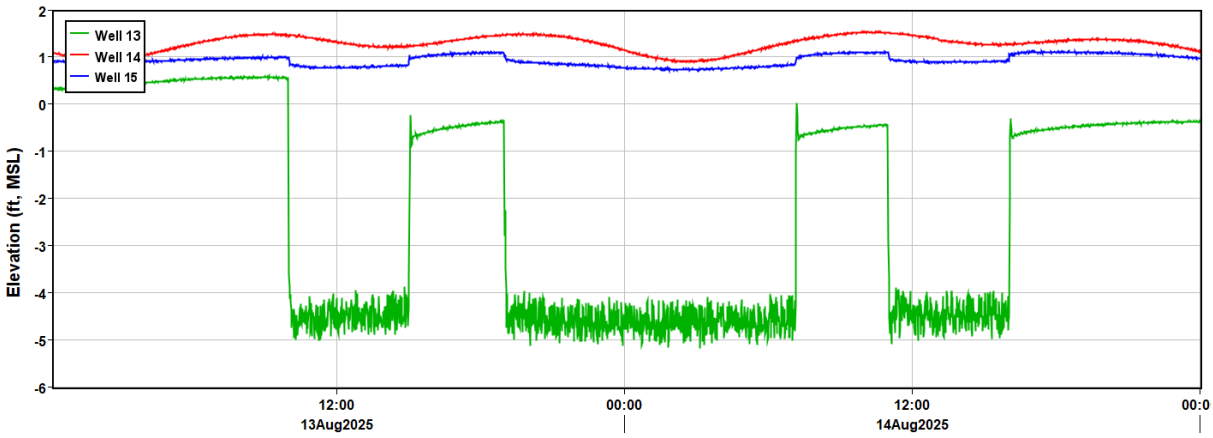


Figure 7-27. Water levels during the cycle test of Well 13.

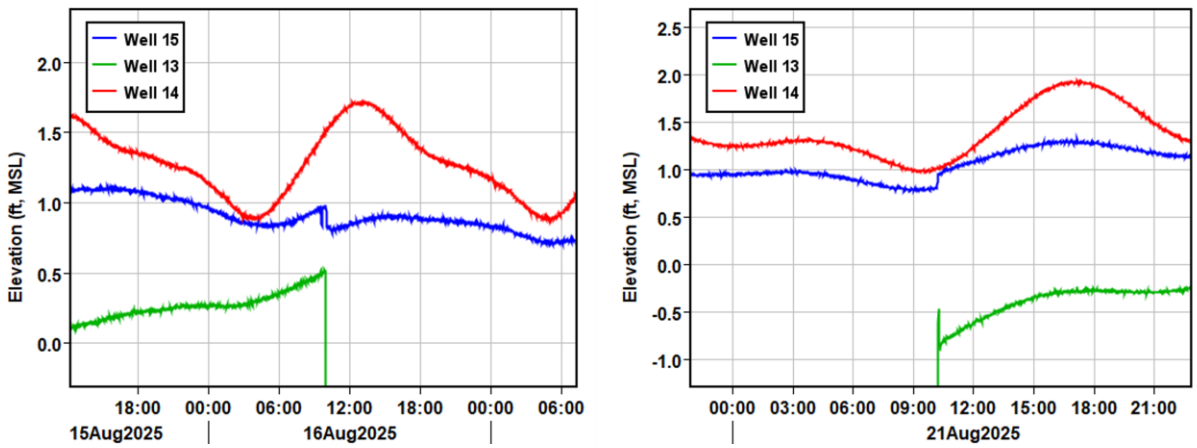


Figure 7-28. Details of water levels at the start (left) and end (right) of the 120-hour constant rate test of Well 13.

7.4.4 KP East and West Wells

Field staff monitored nested monitoring wells ABBEX-2 (KP East and KP West), which lie next to the Kalaeloa Partners injection well site, throughout the aquifer testing period (see Figure 7-1). Both wells are screened in the caprock aquifer. KP West has a shallow screen from approximately 50 to 100 feet bgs, and the KP East screen is set deeper at 220 to 270 feet bgs. These intervals monitor the upper and lower caprock aquifer, respectively.

The two KP wells are 30 feet west of INJ-2 (old INJ-3 in permit no. UO-1319, dated 1989). The mapped locations of injection wells within a 1-mile radius of the KSDF project site are shown in **Figure 2-8**. INJ-2 injects heated industrial wastewater at 399 feet bgs at a permitted average of 951,290 gallons per day (gpd) for every calendar week, or a maximum rate of 700 gpm (Permit no. UO-1496, 2022) (DOH, 2022). Information about the injection wells within a 1-mile radius of the KSDF project site, including permitted discharge type, permitted flow, approximate injection interval, and distance from the KSDF project site are included in Table 2-4.

No response to pumping from Well 15 or Well 14 is observed in either of the two KP wells. No data obtained from the KP wells during testing of Well 13 could be tied to elevation due to errors in setting the transducers. However, there is no apparent impact on the relative water levels in the KP wells from pumping of Well 13. **Figure 7-29** shows the water level records from May 15 through August 4, which includes the testing conducted in Well 15 and Well 14. **Figure 7-30** shows the nine-day period between July 18 and July 26. Changes in either nearby injections or extractions are visible in the response of water levels in the deeper KP East well on July 20, 21, 24 and 25. No responses are observed in the shallow KP West well, suggesting that the upper caprock is hydraulically separated from the lower caprock at this location.

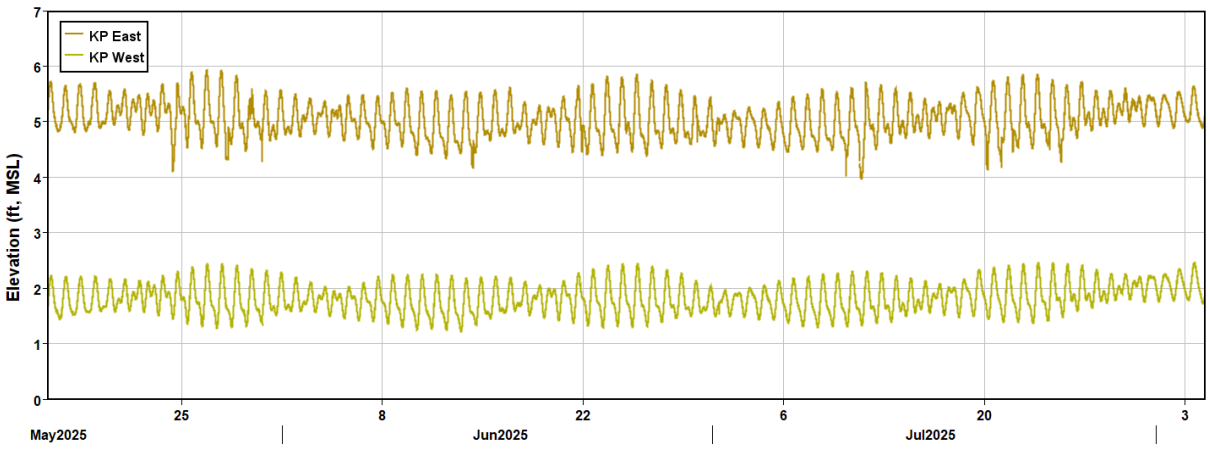


Figure 7-29. Water recorded levels in the nested pair, KP East and West.

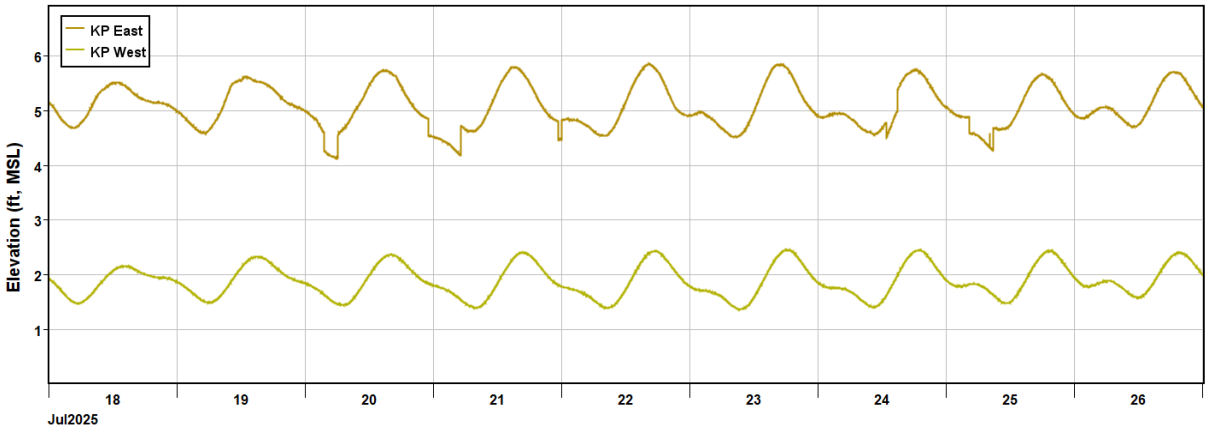


Figure 7-30. Details of water levels in Wells KP East and West. Changes in injections or extraction are observed in KP East on July 20, 21, 24, and 25. The shallower KP West shows no disturbance.

7.4.5 Trends in Tidal Levels

Observed behavior in the tide and all observation wells was very stable and predictable prior to the tsunami on July 29. After July 29, a rising trend is visible in both the tidal data and in the upper caprock monitoring wells, as illustrated in **Figure 7-31**. The trend, indicated by the dashed line in the figure, is the same in the upper caprock wells and the tide. It is unlikely that this rising trend is related to the tsunami; it is more likely a coincidence in timing with annual increases in ocean levels.

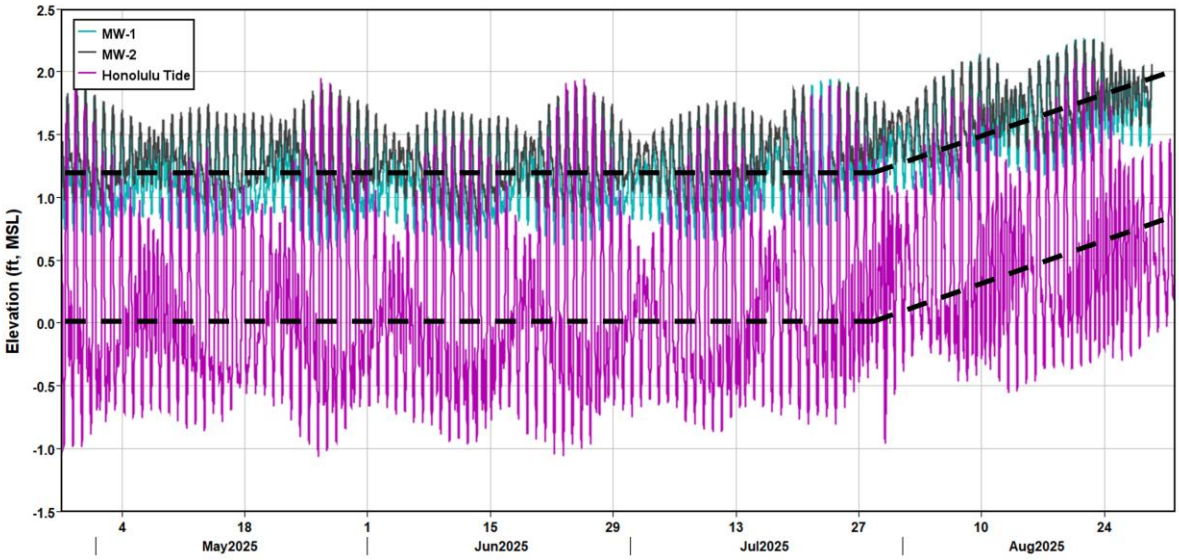


Figure 7-31. **Water level trends in the tide and upper caprock monitoring wells. Trend lines for the upper caprock and tide monitoring locations are shown as the dashed back lines.**

This linear rise in tidal levels represents a new stress that creates unusual behavior in the deeper caprock and volcanic aquifer systems. Trends are also observable in the caprock well (Well 14) and the wells in the volcanic aquifer (Wells 13 and 15). This is illustrated in **Figure 7-32**, where the dashed trend line at the bottom of the graph indicates the trend observed in the tide and upper caprock wells. The signals in the three wells are obscured by the pumping tests conducted in each, but trends are still distinguishable. Wells 13 and 15 show water levels rising after July 29, but at about half the rate as the trend in the tide. Water levels in Well 14 appear to decline following July 29, which coincides closely with the testing of Well 14.

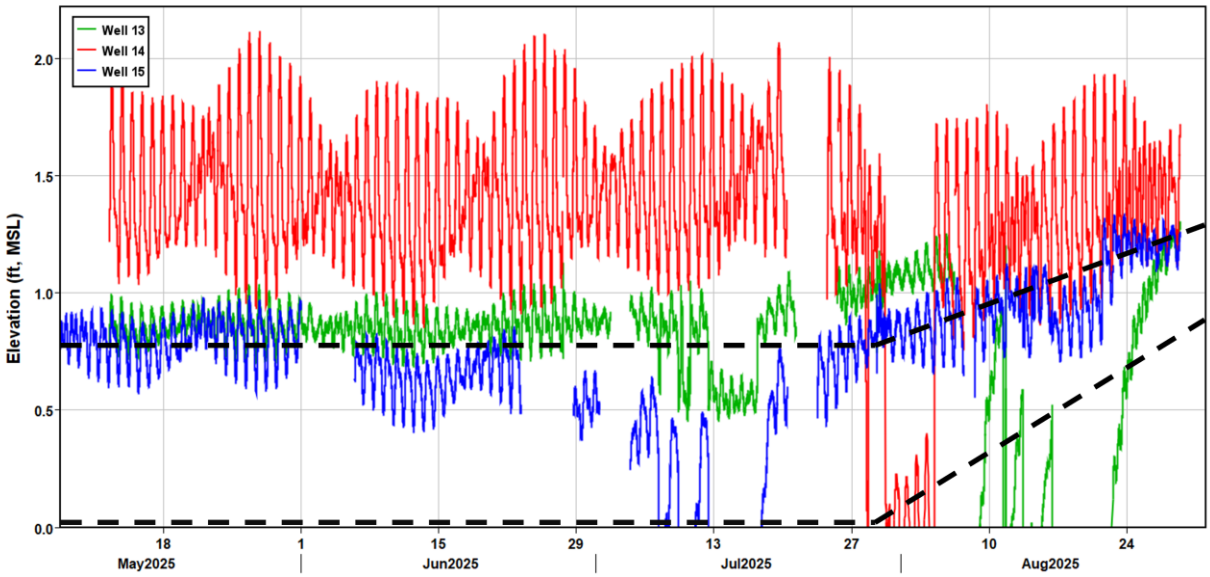


Figure 7-32. Trends in water levels in the lower caprock and volcanic aquifers. The bottom dashed line shows the trend in the tidal water levels from the previous figure.

It appears that the additional stress added to the aquifer system takes Wells 13, 14, and 15 out of equilibrium. While the direct observations of the water level responses to pumping during the testing of Well 13 are still valid, a time series analysis of the data from that test became difficult.

The different response to the increasing tidal levels of the upper caprock at MW 1 and MW 2 in comparison to the deeper caprock Well 14 suggests that there is a hydraulic barrier to vertical flow within the caprock. It is possible that the shallow formation is in direct contact with the canal, while the deeper caprock has a hydraulic separation.

7.4.6 Observations After the Kamchatka Earthquake

The Kamchatka earthquake occurred at 13:24 Hawaiian Standard Time on July 29, 2025 off the Kamchatka Peninsula. Seismic waves from the earthquake reached the volcanic aquifer 17 minutes later at 13:41, producing a distinct spike in water levels in Well 13 and Well 15. No disturbance was observed in Well 14 at that time. Approximately eight hours after the earthquake, mild tsunami waves reached the 'Ewa coast and produced measurable water level fluctuations in all three wells.

As shown in **Figure 7-33**, Well 13 and Well 15 recorded both the s-wave arrival and the later tsunami signal, while Well 14 only responded to the tsunami. This pattern is consistent with the findings by Zhang et al. (2021), who demonstrated that seismic-induced groundwater level changes depend on aquifer confinement. Confined aquifers can transmit s-wave energy and exhibit measurable responses, whereas unconfined or less confined systems often show little to no response due to (1) the inability of the s-wave to propagate in non-solid mediums outside of a confined setting and (2) the degree of confinement affecting how the seismic stress can be transferred into pore pressure changes in the

surrounding rock. The nearby KP wells also showed no signal associated with the earthquake, further supporting the confinement-dependent response.

Weaver et al. (2019) similarly correlated water level with peak ground acceleration and noted that s-wave velocity attenuates with higher frequency in crystalline rocks, such as volcanic basalt, and is dampened in saturated and unconsolidated lithology. Previous research and the observed responses in water level indicate that the volcanic wells responded as confined aquifer systems, allowing them to register the arrival of the s-wave, whereas that caprock well showed no change until the tsunami reached the coast several hours later.

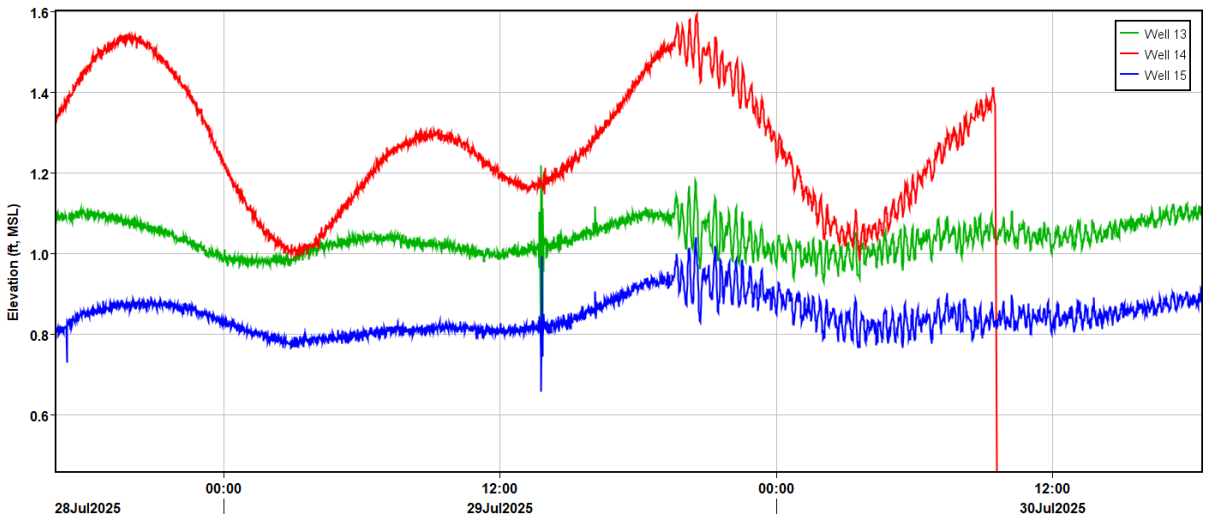


Figure 7-33. Water level responses to seismic waves and tsunami waves in Wells 13, 14, and 15.

7.4.7 Monitoring Conclusions

Direct observations of the water levels in monitored wells during the pumping tests indicate an instantaneous response in Well 13 caused by pumping in Well 15; similarly, there is an instantaneous response in Well 15 caused by pumping in Well 13. This indicates that the volcanic aquifer has a large diffusivity (aquifer Transmissivity over Storativity). No immediate response in Well 14 to pumping from the volcanic aquifer is observable, nor is there a response in the volcanic aquifer to pumping from Well 14. This indicates that a hydraulic barrier separates the highly transmissive caprock from the highly transmissive volcanic aquifer.

A potential more subtle response of slow decline and recovery in Well 14 caused by pumping from the volcanic aquifer is difficult to identify visually in the presented hydrographs; tidal fluctuations in the wells obscure any slow response in the caprock to pumping from the volcanic aquifer. A slow response in Well 14 would indicate a small hydraulic connection between the aquifers. Testing of this possibility is discussed further in **Section 7.5** through a time series analysis of water levels in each observation and pumping well.

The response of water levels in the volcanic aquifer to seismic waves created by the Kamchatka earthquake supports the hypothesis that the volcanic aquifer is confined.

7.5 Time Series Analysis of Test Data

To investigate whether a small and slow decline in water levels is identifiable in the water level signals of the wells, INTERA conducted a time series analysis of the data using the open-sourced software Pastas (Bakker and Schaars, 2019). Pastas is a Python package to perform Transfer Function Noise (TFN) modeling based on impulse response functions.

TFN modeling with Pastas allows the decomposition of a time series of water level observations into responses to individual hydrologic stresses applied to the aquifer system. To apply the method, all stresses to the aquifer system must be known. For example, analysis of the Kalaeloa data included tidal stresses, pumping stresses for each of the tested wells, and the linear trend in aquifer water levels observed after July 19. Other potential stresses on the system include barometric pressure variations and infiltration from precipitation.

Evaluation showed the impact of barometric pressure and its effects on water levels were negligible; changes in barometric pressure are already implicitly included in the tidal stress. Precipitation recorded during the aquifer testing is summarized in **Table 7-11** for two nearby climate stations. Less than 2 inches of rain were recorded for the full 5-month period of testing. No impacts from the precipitation events were identifiable in the water levels in the monitored wells.

Table 7-11. Precipitation records at the 'Ewa Kalaeloa Airport and the Honolulu International Airport (NOAA, 2025c).

2025	Monthly Total Precipitation (inches)	
	'Ewa	Honolulu
April	1.18	0.81
May	0.39	0.58
June	0.36	0.07
July	0.04	0.08
August	0.01	0.00
TOTAL	**1.98**	**1.54**

Initial testing of Pastas software to remove tidal fluctuations from time series data collected in 2024 was conducted: the results are reported in Appendix H. Full results from the Pastas analysis of the 2025 aquifer tests are also included in Appendix H. Results include the parameters evaluated for the impulse response functions, fit to each stress type. The following subsections summarize only the results of the analysis, including the individual water level changes associated with each pumping stress.

7.5.1 Time Series Analysis

The Pastas TFN analysis requires a time series record of stresses applied to an aquifer that produce water level fluctuations at observation wells. The stresses applied to the Kalaeloa aquifers are illustrated in **Figure 7-34** and include tidal fluctuations in the ocean and stresses from the three pumping tests conducted in Well 15, Well 14 and Well 13. The ocean level recorded at the Honolulu gauge is used to represent the tidal stress on the aquifer. In addition to the stresses, a linear trend was applied to the observation data starting on July 29, 2025, based on observations related to a quick increase in ocean levels, as discussed previously. The slope of the linear trend is evaluated separately for each dataset.

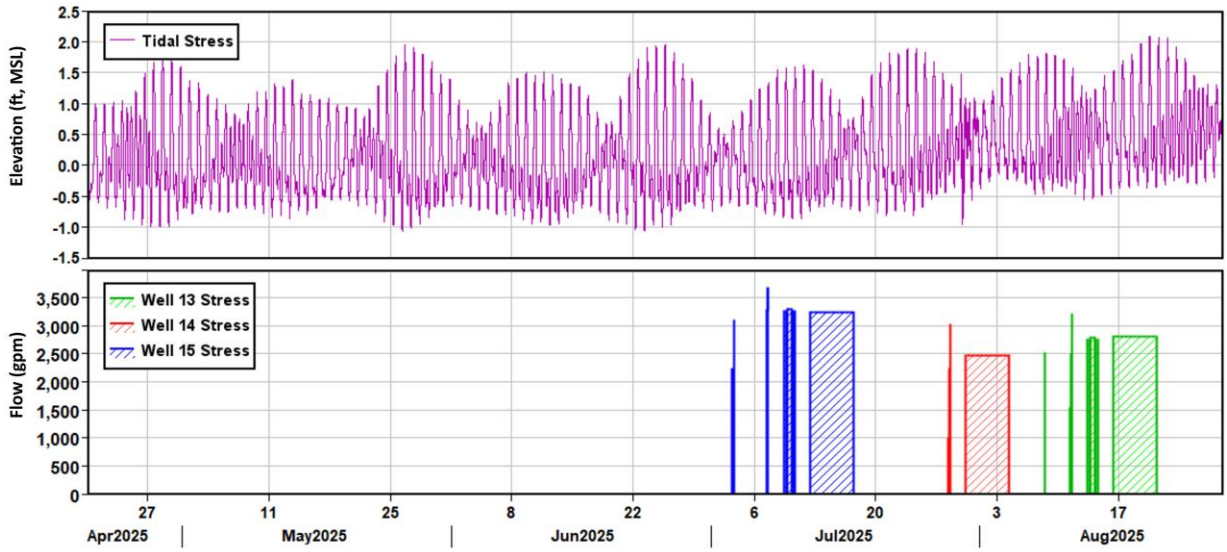


Figure 7-34. The tidal stress and pumping stresses defined for the time series analysis.

Figure 7-35 illustrates the results of the time series analysis of water level records in Well 15; observed water levels are illustrated in the top frame, while the individual components related to each stress are illustrated in the subsequent frames. The modeled time series is the sum of the components plus a constant. The drawdown observed in Well 15 due to pumping from Well 15 is illustrated by the blue line. As shown by the red line, the drawdown observed in Well 15 due to pumping from Well 14 is evaluated as zero, while the green line indicates a small impact on observed drawdown in Well 15 due to pumping from Well 13. The analysis allows the tidal signal to be cleanly separated from each pumping signal.

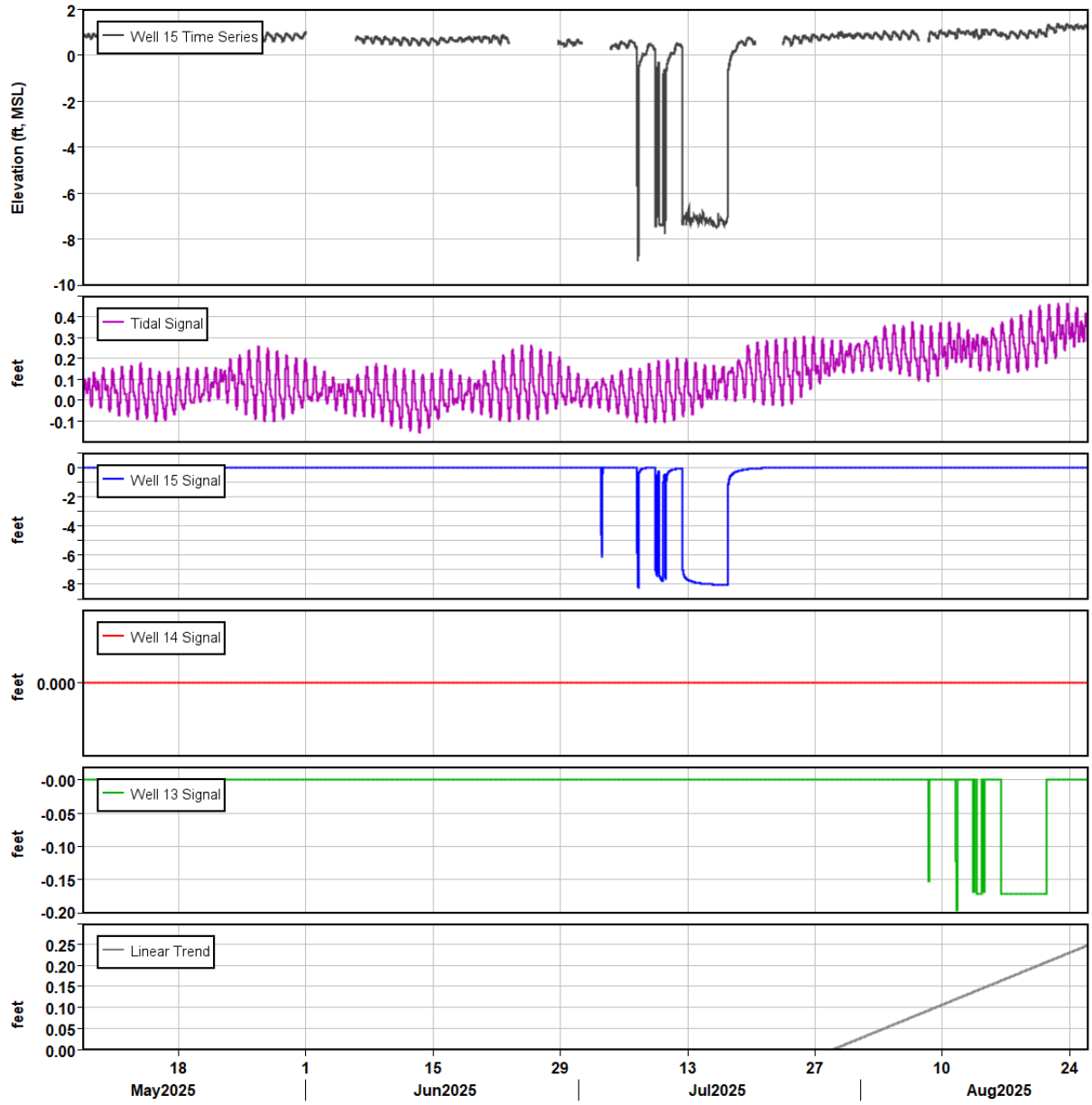


Figure 7-35. Results from the analysis of the Well 15 time series. The observed time series is on top with components related to each stress beneath. Note that each frame has a different vertical scale.

7.5.2 Well 15 Testing

Rather than presenting each observed time series represented by its components, as shown in Figure 7-35 for Well 15, **Figure 7-36** shows the component of each time series (at Wells 15, 13, 14, and MW 1) related to a single pumping stress – Well 15 testing. The biggest impact is on Well 15 itself (blue line), with a significantly smaller impact on Well 13 (green line). The time series analysis detected no impact at Well 14, MW 1, or MW 2 (not shown).

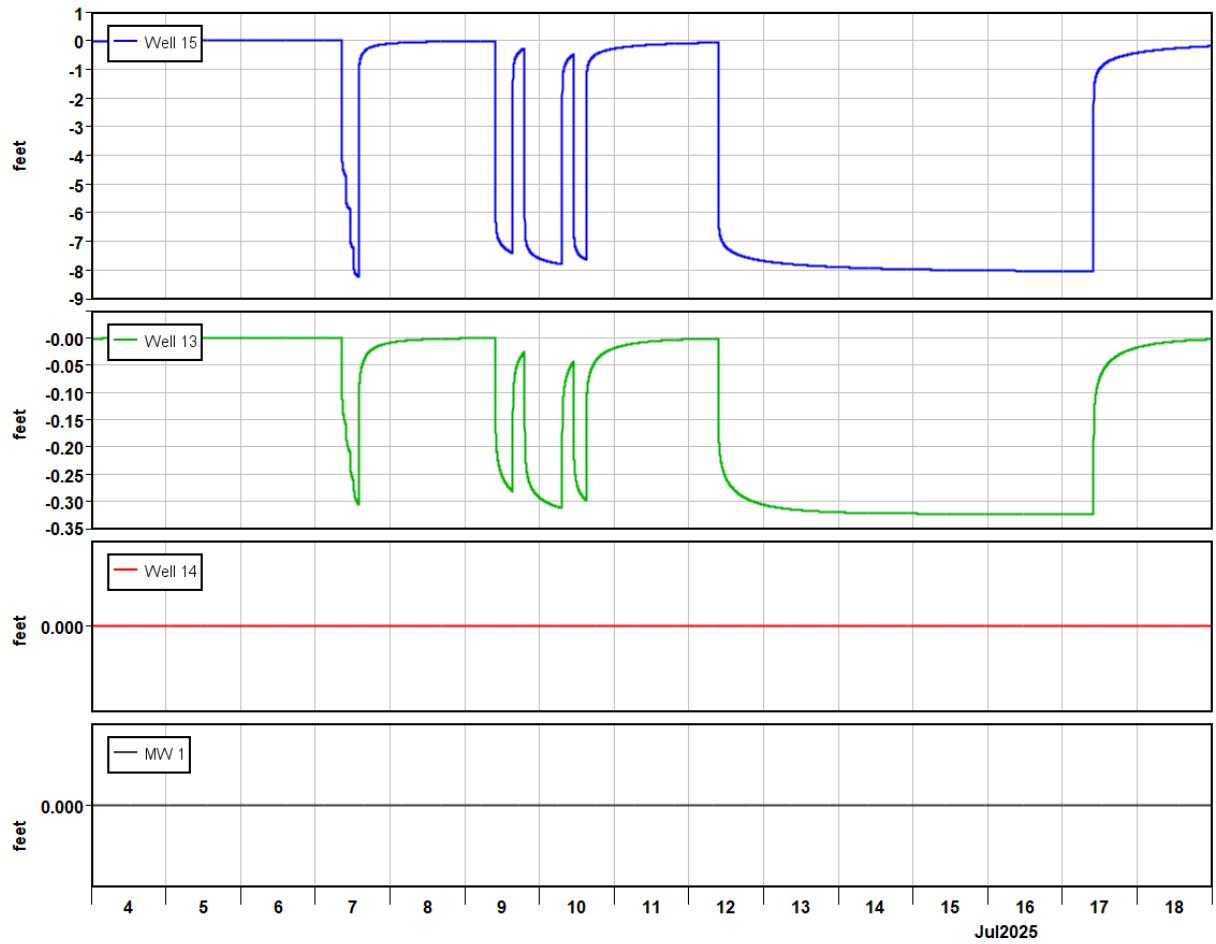


Figure 7-36. The impacts of Well 15 testing on Well 15, Well 13, Well 14 and MW 1. Note that each frame has a different vertical scale. The vertical axis for Well 14 and MW 1 ranges from -0.01 to +0.01 feet.

7.5.3 Well 14 Testing

The impacts of pumping Well 14 on wells MW 1, MW 2, Well 15 and Well 13 are shown in **Figure 7-37**. The analysis detects drawdown in Well 14, MW 1 and MW 2. No impacts were detected in Well 15 or Well 13.

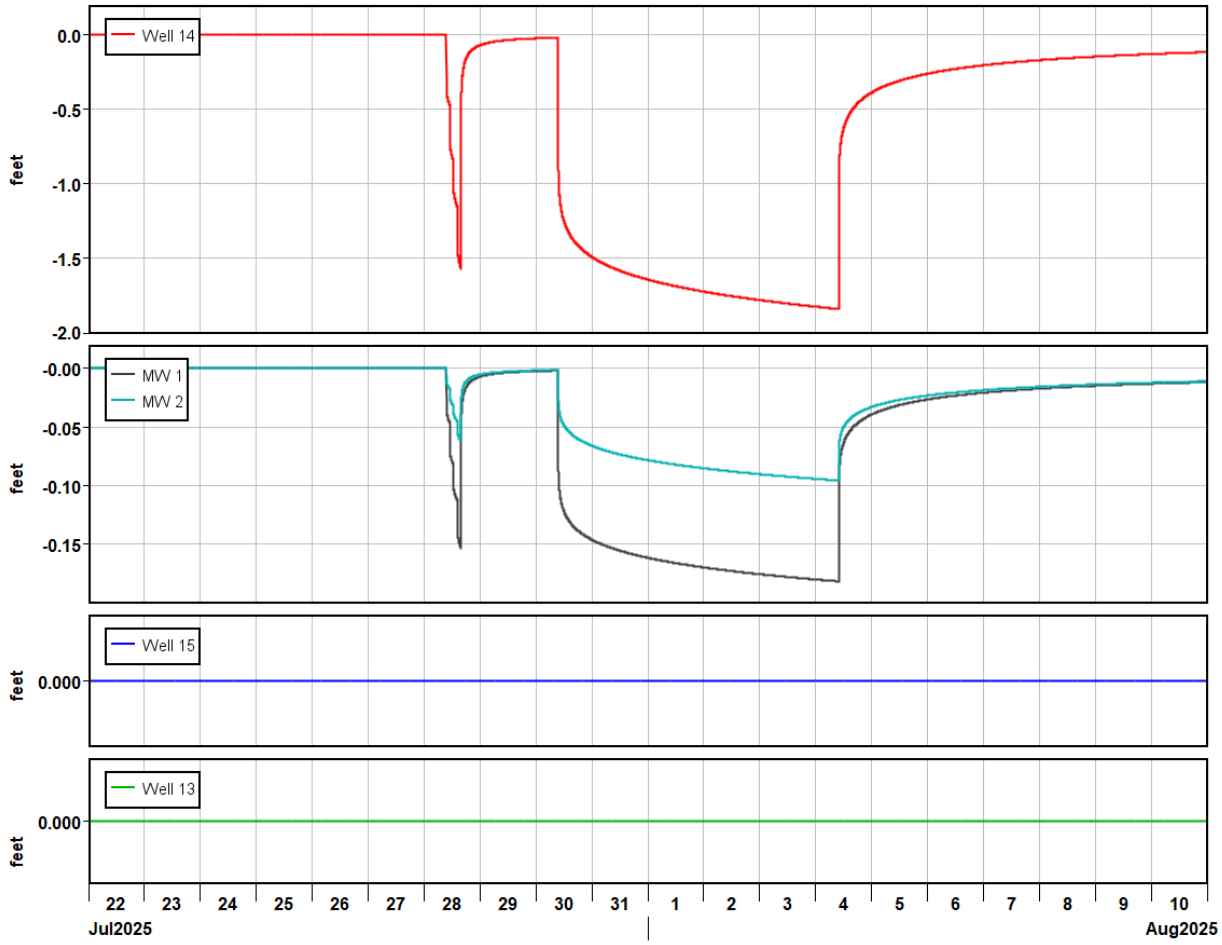


Figure 7-37. The impacts of Well 14 testing on Well 14, MW 1, MW 2, Well 15 and Well 13. Note that each frame has a different vertical scale. The vertical axis for Well 15 and Well 13 ranges from -0.01 to +0.01 feet.

7.5.4 Well 13 Testing

The impacts of pumping Well 13 on Wells 15, Well 14 and MW 1 are shown in **Figure 7-38**. The analysis detected drawdown in Well 13 and a small drawdown in Well 15. No impacts were detected in Well 14 or MW 1. The recovery and drawdown appear abrupt, but this is the best fit for the observed data. An abrupt change would be expected in an aquifer with high transmissivity and low storativity.

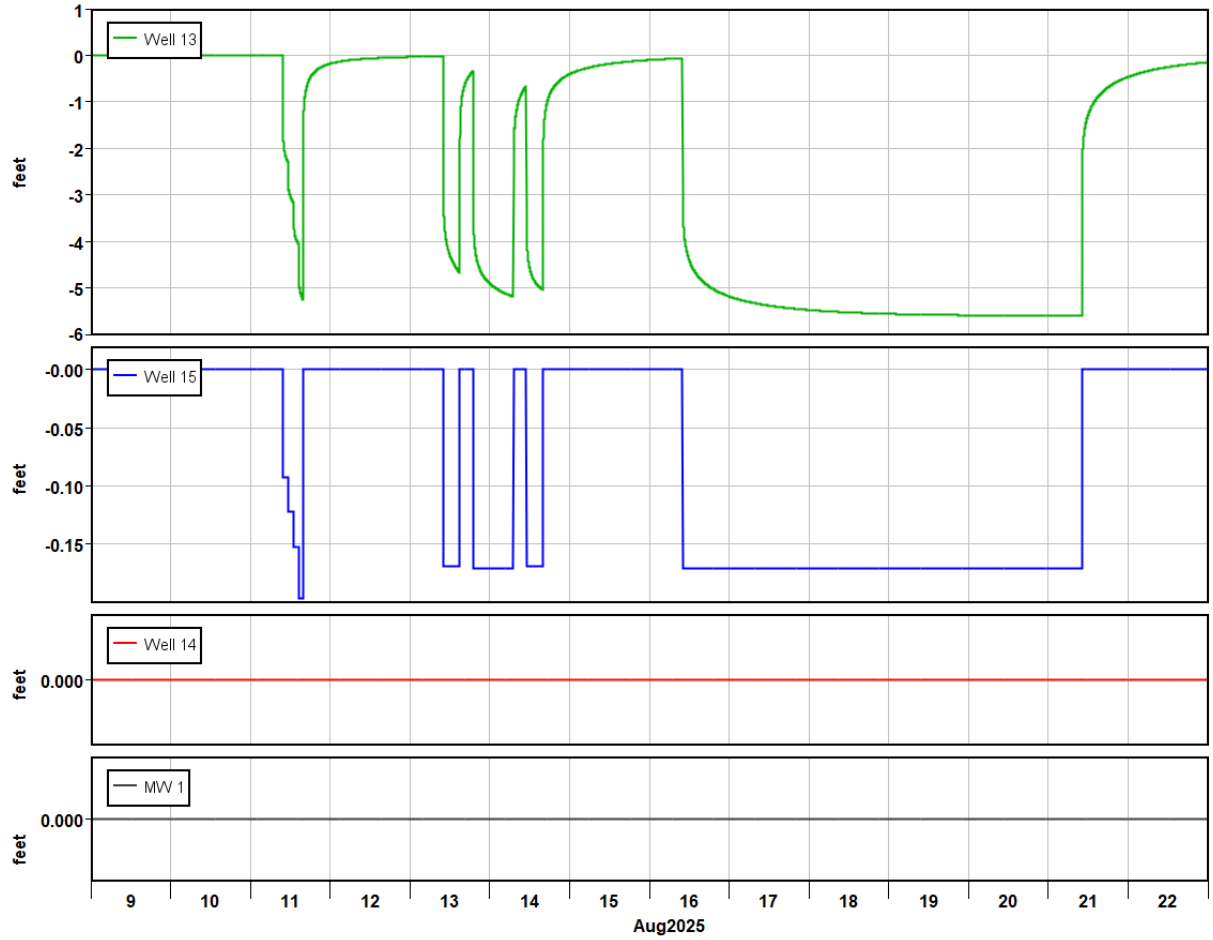


Figure 7-38. The impacts of Well 13 testing on Well 13, Well 15, Well 14, and MW 1. Note that each frame has a different vertical scale. The vertical axis for Well 14 and MW 1 ranges from -0.01 to +0.01 feet.

7.5.5 Limitations of the Analysis

The linear trend observed in ocean and groundwater levels following the tsunami on July 29 complicates the time series analysis. This additional stress to the system could not be captured through the tidal stresses alone. Instead, a linear correction was applied in the analysis after July 29. The analyses and results for the pumping tests in Wells 15 and 14 are conclusive: no interaction between the caprock and volcanic aquifers was identified. Results related to the effects of pumping Well 13 are the same, but the analysis is complicated by the addition of a linear trend for each well. The trend represents an undefined stress on the system and therefore, results from pumping Well 13 are more uncertain than the earlier tests.

7.6 Evaluation of Aquifer Parameters

Drawdown signals identified by the time series analysis were used to estimate the hydraulic parameters of the caprock and volcanic aquifers. This is the first time that either aquifer was tested onsite with drawdown observations made at multiple wells, which therefore represents a unique dataset. Because no interaction between the caprock aquifer and the volcanic aquifer was detected during aquifer testing, we treat the volcanic aquifer and the caprock aquifer as hydraulicly separate units when evaluating the properties of each.

A multi-layer transient groundwater flow model was developed using the open-source software Ttim (Bakker, 2013) prior to field testing. The purpose of the tool was to explore alternate conceptual models of the possible connection between the volcanic and caprock aquifers, assist in the design and interpretation of the aquifer tests, and estimate aquifer hydraulic properties after field testing was completed. The Ttim model was used successfully for the first two tasks. After testing was completed, the Ttim model was initially used to estimate aquifer properties. However, early in the process it became clear that the uncertainty around the range of possible conceptual models of flow in the two aquifers translated into a large degree of uncertainty in parameter estimates. The Ttim modeling approach to analyzing the drawdown data was abandoned at that point, and more standard analysis methods were employed to estimate the properties.

Drawdown in the volcanic aquifer during Well 15 testing and Well 13 testing are shown on a semi-log scale in **Figure 7-39**.

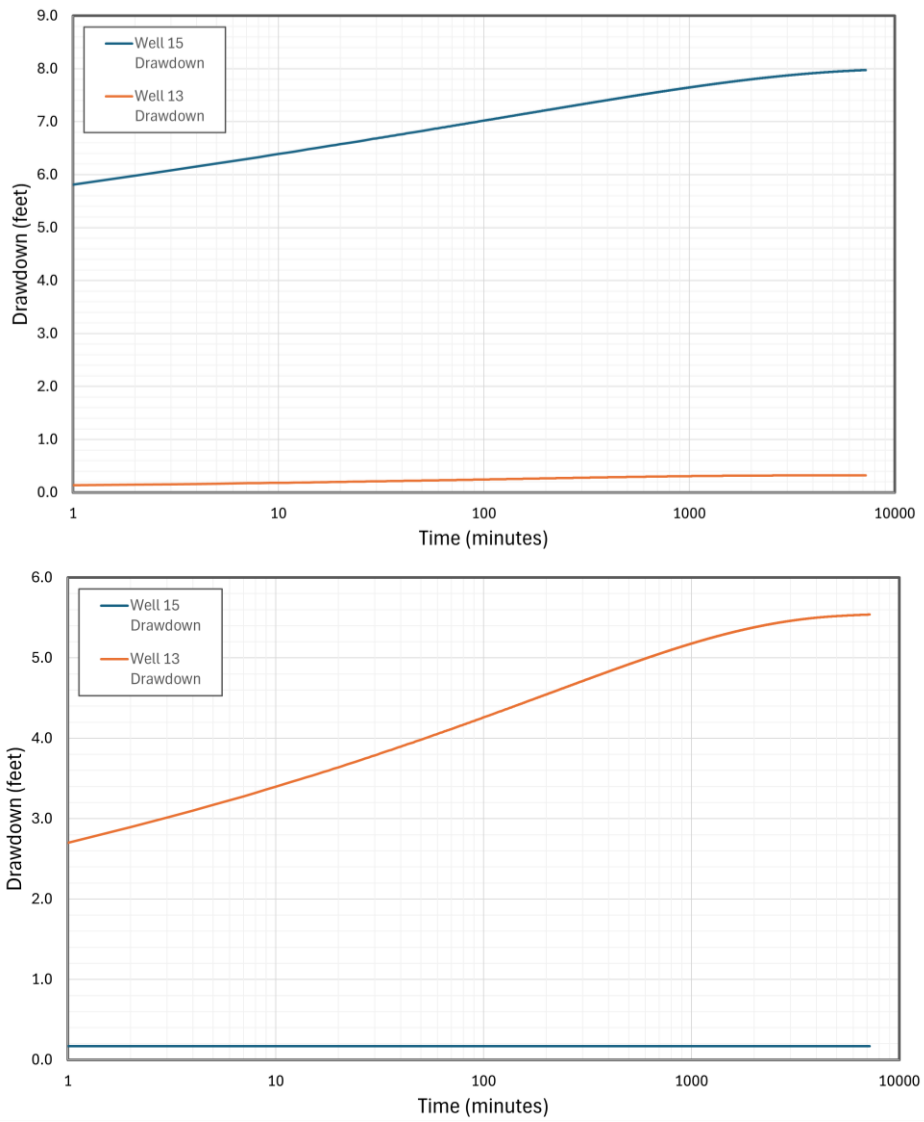


Figure 7-39. Drawdown in Well 15 and Well 13 during the 120-hour constant-rate test of Well 15 (top) and drawdown in Well 15 and Well 13 during the 120-hour constant-rate test of Well 13 (bottom). The drawdown signals were evaluated by the time series analysis.

7.6.1 Volcanic Aquifer

Aquifer tests in the volcanic aquifer were analyzed in two ways. First, a Cooper-Jacob analysis was made of the pumping signals from each test, based on the semi-log plots of drawdown shown in Figure 7-39. Second, the Thiem equation for steady radial flow to a well was modified by the method of images to account for a coastal boundary 20,000 feet offshore. The drawdown at each well at the end of the testing periods was used to represent the steady-state drawdown in the calculations.

Results from the testing of Well 15 and of Well 13 are presented in **Table 7-12** and **Table 7-13**, respectively. As seen in Table 7-12, the drawdown behavior observed in Well 15 during pumping is

significantly different from the behavior in Well 13; the transmissivity estimates vary by an order of magnitude. Storativity could only be evaluated from the drawdown in Well 13 caused by pumping in Well 15. Analysis results from the testing of Well 13 also differ by more than an order of magnitude.

Table 7-12. Estimates of the hydraulic properties of the volcanic aquifer, based on the testing of Well 15.

Well	Pumping Rate (gpm)	Transmissivity (ft^2/day)	Storativity (-)	Notes
Well 15	3236	172,000	--	Cooper Jacob
Well 13	0	1,720,000	2x10-4	Cooper Jacob
Well 13	0	1,732,000	--	Thiem Equation with Coastal Boundary

Table 7-13. Estimates of the hydraulic properties of the volcanic aquifer, based on the testing of Well 13.

Well	Pumping Rate (gpm)	Transmissivity (ft^2/day)	Storativity (-)	Notes
Well 13	2805	113,000	--	Cooper Jacob
Well 15	0	2,830,000	--	Thiem Equation with Coastal Boundary

7.6.2 Caprock Aquifer

Drawdowns in the caprock aquifer during Well 14 testing are shown on a semi-log scale in **Figure 7-40**.

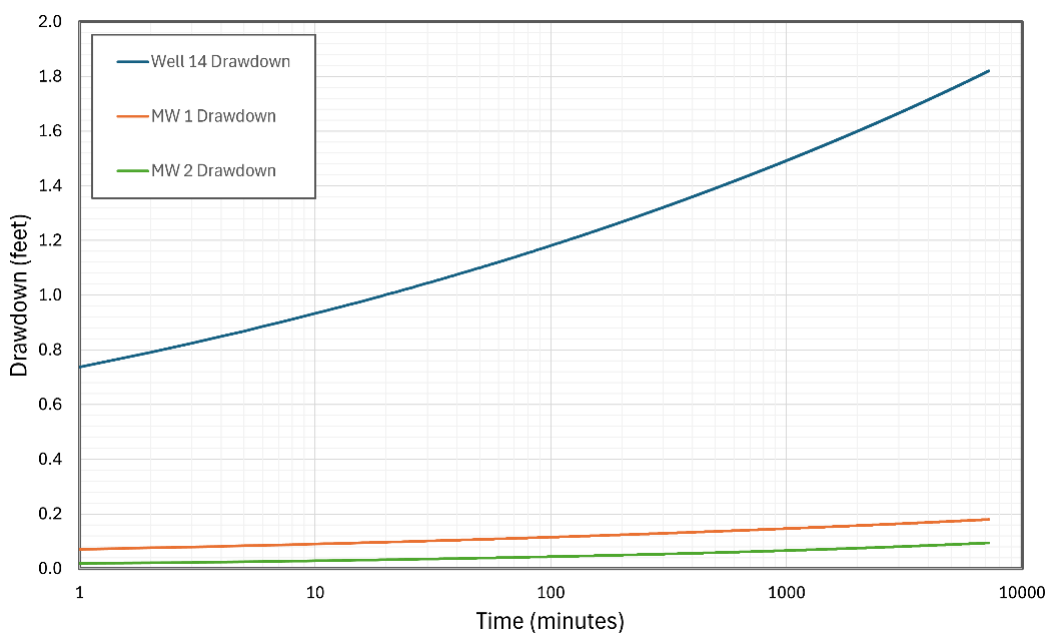


Figure 7-40. Drawdown in Well 14, MW 1, and MW 2 during the 120-hour constant-rate test of Well 14. The drawdown signals were evaluated by the time series analysis.

Alternate analyses were used to estimate hydraulic parameters of the caprock aquifer. First, the drawdown in Well 14 was analyzed using the Cooper Jacob Method assuming that it reflects the combined behavior of both the upper and lower caprock formations.

Next, INTERA analyzed the drawdowns in MW 1 and MW 2 assuming that the upper caprock is hydraulically separated from the lower caprock. This analysis reduced the pumping rate of Well 14, proportional to the ratio of the thickness of the upper caprock to the thickness of the combined upper and lower caprock, as illustrated in **Figure 7-41**. Well 14 is screened across both formations, and the analysis assumed that each layer produces water according to its transmissivity relative to the total transmissivity of the caprock. The resulting transmissivity of the upper caprock was then scaled to represent the total caprock transmissivity by assuming that the hydraulic conductivity of the upper and lower caprock are the same.

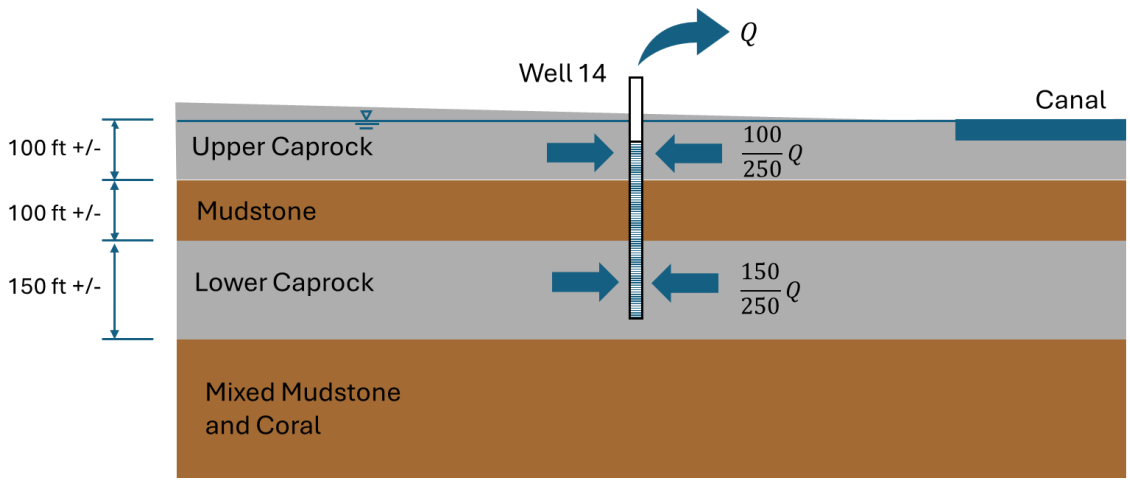


Figure 7-41. Schematic of Well 14 through the Upper and Lower Caprock. The discharge of the well is divided between the upper and lower caprock units by the thickness of the unit relative to the total caprock thickness.

A third model was used to estimate the parameters of the upper caprock: the steady state Thiem equation, modified by the method of images to include the canal as a constant head boundary, and used a reduced pumping rate. The model assumed that the canal is in direct contact with the upper caprock but is not necessarily in contact with the lower caprock. The resulting transmissivity of the upper caprock was scaled to reflect the total transmissivity of the caprock.

Finally, a distance drawdown analysis was performed on the drawdowns at MW 1 and MW 2 based on drawdowns at the end of the 120-hour pumping test. Again, this analysis assumed the upper caprock was separated from the lower caprock, reduced the pumping rate, and scaled the result to represent the total caprock thickness. A storativity estimate was only obtainable from the distance drawdown analysis. The value of 0.0135 suggests an unconfined condition, which is consistent with the conceptual model of the upper caprock. The transmissivity estimates for the caprock aquifer vary over more than one order of magnitude. A summary of the results for the caprock aquifer are presented in **Table 7-14**.

Table 7-14. Estimates of the hydraulic properties of the caprock aquifer, based on the testing of Well 14.

Well	Pumping Rate (gpm)	Transmissivity (ft^2/day)	Storativity (-)	Notes
Well 14	2470	249,000	--	Cooper Jacob, Total Caprock
MW 1, MW 2	0	2,490,000	--	Cooper Jacob, Upper Caprock with scaled pumping rate
MW 1	0	500,000	--	Thiem Equation, Upper Caprock, with scaled pumping rate, connected to Canal
MW 2	0	240,000		Thiem Equation, Upper Caprock, with scaled pumping rate, connected to Canal
MW 1, MW 2	0	1,145,000	0.0135	Distance Drawdown, Upper Caprock scaled pumping rate

7.6.3 Discussion

The estimates obtained by the Cooper Jacob Analysis of drawdown in the pumping well all provide the lowest estimates of transmissivity; the results from drawdown data in the observation wells were significantly higher. The drawdown in the pumping wells is consistently higher than would be expected from the drawdown in the observation wells.

In the volcanic aquifer, there are three potential interpretations that are consistent with this observation.

- First, there could be significant losses due to a skin effect on the well bore and the effects of partial penetration of the well into the volcanic aquifer. A low well-efficiency would create the large drawdowns observed in the pumping wells but would not explain the different slopes of the drawdown in the observation wells in comparison to the pumping well. That behavior can either be explained as non-radial flow or as an artifact of the time series analysis.
- Second, the non-radial flow behavior could be explained by lateral anisotropy in the volcanic aquifer. Volcanic aquifers are often assumed to be laterally anisotropic with respect to the direction of lava flow. The anisotropy ratio of 1 to 3 (along the lava flow / normal to lava flow) is often cited as being reasonable. Anisotropy would create non-radial flow, but the typical value of 1 to 3 cannot create the very large drawdowns observed at the pumping well relative to the observation wells. A low well-efficiency pumping well would also be required.
- Finally, a flow barrier could exist between Wells 15 and 13, producing non-radial flow and increasing the drawdown at the pumping well relative to the observation well. Due to the high transmissivity of the volcanic aquifer, the barrier would have to be extensive, running from the source of the original lava flow to the aquifer outcrop beneath the ocean. This possibility seems unrealistic.

In the caprock aquifer, we again observe different slopes of the drawdown signal in the pumped well relative to the observation wells. This could again be explained as either non-radial flow, as an artifact of the time series analysis, or by different properties of the upper and lower caprock units.

Despite the extensive testing, the aquifer parameters remain uncertain. This is due to our limited knowledge of the local aquifer anisotropy, well efficiency, and vertical variations in transmissivity. **Table 7-15** provides best estimates of the hydraulic properties of the two aquifers. The estimates are weighed towards the analyses of the observation well data, the Thiem analysis, and distance-drawdown analysis of the observation wells rather than the pumping well data.

Table 7-15. Best-estimates of the hydraulic properties of the volcanic and caprock aquifers. Note the thickness of the volcanic aquifer varies between the total length of the open well bore and the total depth of the basalt.

	1,200,000	250	4,800	0.0135
	2,000,000	500 to 3800	4,000 to 530	0.0002

7.7 Final Outcome

The two hypotheses examined by the aquifer testing program included: the production intervals within the volcanic aquifer system are hydraulically separated from the caprock injection interval by a low-permeability layer or layers between the injection interval and the producing zones; and pumping from the volcanic production wells results in no measurable drawdown within the caprock wells onsite.

No measurable impact associated with pumping in either volcanic well was identified in any of the caprock wells. Furthermore, no impact in the volcanic wells associated with pumping from the caprock well was identified either visually or through time series analysis. Results of the aquifer testing support both hypotheses and are consistent with the assumption of a low permeability layer separating the caprock and volcanic aquifers.

8.0 Water Sampling and Analysis Program

8.1 Hypothesis and Outcome Scenarios

The primary objectives of the water quality and geochemical sampling program were as follows:

1. Develop an overall geochemical characterization of the caprock and volcanic aquifers to identify constituents that appear only in one formation or identify constituents with different concentrations or values that indicate unique geochemical signatures for each aquifer. Examples of potential differences include, but are not limited to, the following:
   - Short aquifer residence times and influence of recent precipitation and surface runoff in the caprock aquifer results in isotopic values (e.g., tritium, ^{14}C) that indicate much "younger" water in the caprock. Conversely, isolation of the volcanic aquifer from the influence of surface waters and dominance of circulation of deeper ocean waters results in isotopic constituents that indicate "older" water in the volcanic aquifer.
   - The influence of precipitation, surface runoff, and nearby industrial activity results in detection of anthropogenic constituents (e.g., nitrates, organic compounds) in the caprock but not in the volcanics.
   - Interaction of groundwater in the caprock aquifer with the caprock reef carbonates and/or mud layers (e.g., ion exchange, mineral precipitation/dissolution) results in concentrations or ratios of specific ions that are different from those in the volcanics.
2. Determine if pumping from the volcanic aquifer results in changes in the geochemistry of either aquifer that could represent cross-formational flow of water induced by pumping from the volcanic aquifer wells.

The relevant hypotheses for the geochemical survey were as follows:

1. There is sufficient hydraulic separation between the caprock aquifer and the underlying volcanic aquifer that, under static conditions, certain aspects of the geochemistry of the caprock aquifer will be measurably different from that in the volcanic aquifer.
2. Pumping from the volcanic aquifer will result in no change to the chemistry of the volcanic aquifer groundwater that would indicate that pumping induces flow from the caprock into the underlying volcanics.

To test the first hypothesis, the study design detailed in **Section 8.2** includes sampling and laboratory analysis of groundwater from available site wells screened in each aquifer and offshore sampling of seawater. To test the second hypothesis, the study design included two events for groundwater sampling from Wells 13, 14, and 15 – a first sampling event toward the beginning of aquifer testing after purging three well casing volumes during the step test for each well, and a second sampling event toward the end of the extended constant rate test (see Section 7.2).

The potential outcomes relative to the hypotheses are as follows:

Outcome 1: The first sampling event identifies clear geochemical differences between the caprock aquifer and the volcanic aquifer as per Objective 1 listed above. Samples taken at the end of the pumping test indicate no change to the geochemistry of either the caprock aquifer or underlying volcanic aquifer.

Result: The testing results support both hypotheses and are consistent with the assumption of a low permeability layer separating the caprock and volcanic aquifers. Test results also indicate that pumping from the volcanics will not result in cross-formational flow from the caprock aquifer induced by pumping of the volcanic aquifer production wells.

Outcome 2: The first sampling event identifies clear geochemical differences between the caprock aquifer and the volcanic aquifer as per Objective 1 listed above. Samples taken at the end of the pumping test indicate an observable change to the geochemistry of either the caprock aquifer or underlying volcanic aquifer that indicates mixing of the two resulting from cross-formational flow.

Result: The testing results support the first hypothesis and are consistent with the assumption of a low-permeability layer separating the caprock and volcanic aquifers under static conditions. The post-aquifer test sampling results, however, refute the second hypothesis and indicate that pumping from the volcanics will result in cross-formational flow and mixing of water from the caprock aquifer into the volcanic aquifer production wells.

Outcome 3: The first sampling event does not identify any clear geochemical differences between the caprock aquifer and the volcanic aquifer as per Objective 1 listed above. The sampling event does, however, identify anthropogenic constituents in both aquifers that indicate influence of surface runoff and/or local industrial activity. Samples taken at the end of the pumping test do not indicate any observable change to the geochemistry of either the caprock aquifer or underlying volcanic aquifer; however, there are no significant geochemical tracers or markers that can be used to differentiate between the two formations.

Result: The testing results refute both hypotheses and are not consistent with the assumption of any hydraulic separation between the caprock and volcanic aquifers under either static or pumping conditions.

Outcome 4: The first sampling event does not identify any geochemical differences between the caprock aquifer and the volcanic aquifer as per Objective 1 listed above and does not identify any anthropogenic constituents in either formation. Samples taken at the end of the pumping test do not indicate any observable change to the geochemistry of either the caprock aquifer or underlying volcanic aquifer; however, there are no significant geochemical tracers or markers that can be used to differentiate between the two formations.

Result: The testing results are inconclusive and neither support nor refute the hypotheses.

8.2 Study Design

The study included offshore seawater sampling (**Section 8.2.1**), onsite groundwater sampling (**Section 8.2.2**), and an extensive suite of laboratory analyses (**Section 8.2.3**).

Wells 13 and 15 were both sampled during aquifer testing to characterize the volcanic aquifer's water chemistry and its response to pumping.

As described in Section 3.1.2, the upper caprock extends from 0 to 120 feet bgs, and the lower caprock extends from 180 to 380 feet bgs at the KSDF project site. MW 1 and MW 2 are open to the portion of the upper caprock aquifer (MW 1 from 5 to 17 feet bgs and MW 2 from 7 to 17 feet bgs) and were sampled to characterize the shallow caprock water chemistry. Well 14 (open from 50 to 300 feet bgs) was sampled to characterize the caprock aquifer water chemistry, which was most relevant to testing whether pumping volcanic aquifer wells could cause cross-formational flow. There were no available wells on or in the vicinity of KSDF open only to the lower caprock, but Well 14 is open to both the upper and lower caprock aquifers. To the extent the Well 14 water chemistry differs from that of MW 1 and MW 2, those differences are likely attributable to mixing of lower caprock aquifer water quality with upper caprock aquifer water quality in the water produced from Well 14.

8.2.1 Offshore Sampling Event

INTERA performed offshore seawater sampling on May 27, 2025, consisting of three discrete samples from two offshore locations (**Figure 8-1**). The three samples were collected from: 400 feet depth at 5 km offshore (offshore 1), the ocean surface at 5 km offshore (offshore 2), and the ocean surface at a nearshore location (offshore 3). The nearshore location was directly offshore of the drainage canal (with the final site selection dictated by safety and surf conditions). The locations were chosen to provide data to evaluate seawater-groundwater interactions. It was hypothesized that the canal is in hydraulic communication with the upper caprock aquifer. The 5 km offshore location was chosen based on the hypothesized recharge zone for the deep wells in the volcanic aquifer, using the vertical temperature profile of the offshore location to select the 400-foot sampling depth consistent with the temperature profiles of the volcanic aquifer wells.

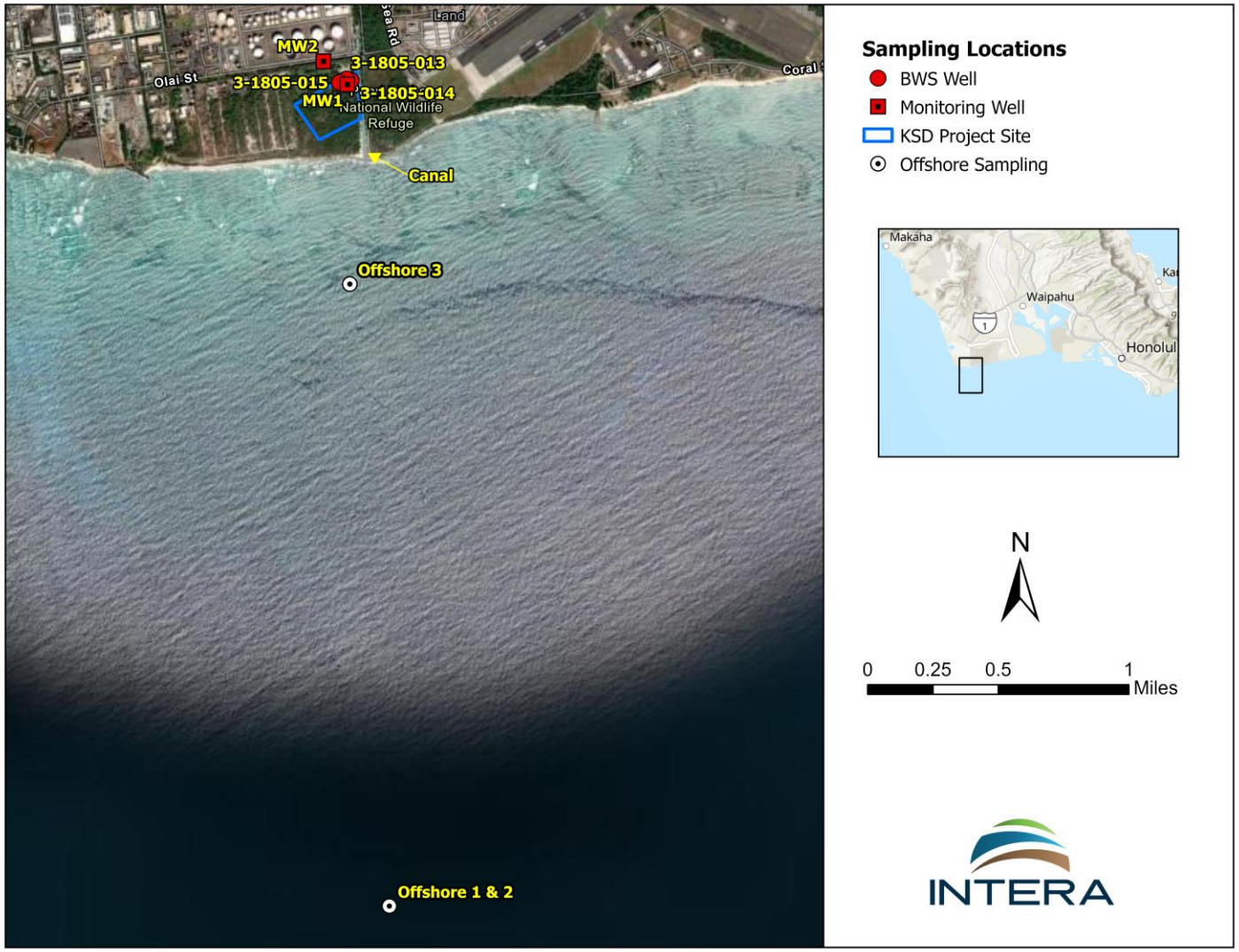


Figure 8-1. Offshore sampling locations (Offshore 1, Offshore 2, and Offshore 3).

The list of analytes for the offshore seawater analysis is provided below (modified from the Final WP):

- Field parameters (temperature, pH, specific conductance, DO, and ORP);
- Stable isotopes (δ^2H and $\delta^{18}O$);
- Tritium by helium in-growth method;
- Radiocarbon (^{14}C) and $\delta^{13}C$;
- TDS;
- Major cations/anions (Na, K, Ca, Mg, F, Cl, Br, SO_4, NO_3, NO_2);
- Alkalinity;
- Salinity;
- Radiochemistry (gross alpha, gross beta, combined radium-226/228, strontium-90)
- TOC;
- COD and BOD;
- Total Kjeldahl nitrogen;
- Total Phosphorus;
- Dissolved silica; and
- Dissolved metals (As, Al, Ba, Cd, Cr, Cu, Fe, Li, Pb, Mn, Hg, Se, Ag, V, and Zn)

8.2.2 Groundwater Sampling Event

INTERA performed groundwater sampling between July 3 and August 21, 2025 in conjunction with aquifer testing. INTERA collected field water chemistry parameters during the pumping tests using a Horiba U-50 multi-meter before collecting grab samples for laboratory analysis. The Horiba multi-meter was calibrated several times throughout the course of aquifer testing activities. Water sampling occurred via a ball valve sampling port on the discharge head of the pump for each of the wells where pumping tests took place.

Temperature and E_c values were measured regularly throughout the aquifer testing program. Additional water quality parameters, including total dissolved solids, pH, turbidity, oxidation-reduction potential, and dissolved oxygen, were measured when time permitted. A summary of field measured water quality is in Appendix F.

Water samples were taken at the beginning and end of aquifer testing for each well. Aquifer testing for each well began with step tests and finished with 120-hour constant rate tests. The first sample was taken after approximately 3 well casing volumes were purged at the beginning of the step test, and the second sample was taken at the end of the 120-hour constant rate tests.

Well 15 samples were collected on July 3, 2025 (step test) and July 17, 2025 (120-hour test primary and duplicate samples). Well 14 samples were collected on July 28, 2025 (step test) and August 4, 2025 (120-hour test). An equipment blank sample (Well 14 EB) was collected using distilled water at the time of the Well 14 120-hour sample for quality control purposes. Well 13 samples were collected on August 11 (step test primary and duplicate samples) and August 21 (120-hour test).

INTERA sampled shallow caprock monitoring wells MW 1 and MW 2 on July 22, 2025, for comparison with Wells 13, 14, and 15. For MW 1 and MW 2, a Geotech peristaltic pump with silicone tubing was used to purge 3 well casing volumes from the wells, collect water quality parameters with the Horiba U-50, and obtain water samples. Field staff noted a sulfur odor for both MW 1 and MW 2 at the start of purging that seemed to diminish as purging progressed.

8.2.3 Laboratory Analysis

In accordance with the Final WP, multiple laboratories performed a broad suite of water quality and geochemical analyses of water samples and evaluated results to test the hypotheses stated in Section 8.1. Samples for analyses with short holding times were submitted to FQ Labs. Samples for most analyses were submitted to Eurofins, which either performed analyses or forwarded samples to accredited laboratories in the Eurofins network where necessary for certain methods. Samples for radiocarbon (^{14}C) and $\delta^{13}C$ analyses were submitted to ICA Labs Inc. (ICA). Samples for analysis of stable isotopes ($\delta^{2}H$ and $\delta^{18}O$) were submitted to the University of Hawai'i at Mānoa Radiochemistry Lab. Samples for analysis of tritium, noble gases, SF_6, and CFCs were submitted to the University of Utah Dissolved and Noble Gas Lab (Utah).

8.3 Results

Laboratory results for all water samples are in **Appendix I**, except CFCs analyses from Utah, which were not completed at the time of this report. Presentation and discussion of results is organized into categories of analyses (general water quality in **Section 8.3.1**, stable isotopes in **Section 8.3.2**, residence time tracers in **Section 8.3.3**, radiological analyses in **Section 8.3.4**, and anthropogenic constituents in **Section 8.3.5**). Final outcomes from the water sampling and analysis program are summarized in **Section 8.4**.

8.3.1 General Water Quality

Water samples from the deep volcanic wells (Wells 13 and 15), caprock (Well 14), shallow caprock (MW 1 and MW 2), and shallow and deep oceanic samples collected near the shore and at 5 km distance were analyzed for major cations and anions, minor elements, and trace metals. These data were examined to determine if they share any common chemical signatures between the upper and lower caprock, the volcanic aquifers, and the local seawater. The data were evaluated to determine if pumping the wells caused changes in chemistry that would signal communication between the caprock and the volcanic aquifers.

The Durov diagram of the water samples (**Figure 8-2**) shows that all of the waters are sodium - chloride type waters, with the shallow caprock samples (MW 1 and MW 2) having significantly lower TDS than the Well 14, volcanic aquifer wells, and seawater samples. The similarity of Wells 13, 14, and 15 groundwater to the local seawater's composition, TDS, and pH was consistent with expectation based on previous results (Section 3.3.1). MW 1 and MW 2 had relatively neutral pH and slightly higher

proportions of calcium and bicarbonate compared to other samples, though those differences were far less pronounced than the difference in TDS.

The samples were run through the geochemical modeling code PHREEQC (Parkhurst and Appelo, 2013) to determine the saturation indices of phases of interest. The specific ion interaction theory (Grenthe et al., 1997) activity coefficient model (SIT) database was used in the calculations due to the relatively high TDS of the samples. The results of the PHREEQC calculations are displayed in **Table 8-1**. Note that saturation data for four phases were chosen for Table 8-1 because all other phases were greatly undersaturated.

Table 8-1. PHREEQC results using the SIT model showing the ionic strength, charge balance error (CBE), and the saturation index of key mineral phases.

Sample	Ionic Strength (m)	Saturation Index				
		CBE	Quartz	SiO_2(am)	Calcite	Gypsum
Offshore 1- Deep 5 km	0.64	7.0	<-0.65	<-1.68	-0.54	-0.57
Offshore 2- Surface 5km	0.70	-3.2	<-0.64	<-1.67	-0.50	-0.57
Offshore 3- Surface Near shore	0.78	-13.2	<-0.64	<-1.67	-0.49	-0.57
Well 13 Step	0.66	-3.8	0.47	-0.56	-0.50	-0.58
Well 13 120-Hour	0.66	-4.4	0.44	-0.59	-0.55	-0.57
Well 15 120-Hour	0.70	0.09	0.44	-0.59	-0.53	-0.55
Well 15 120-Hour DUPLICATE	0.67	-4.4	0.42	-0.61	-0.52	-0.53
MW 1	0.17	2.3	0.55	-0.48	NA	-0.91
MW 2	0.10	-1.9	0.53	-0.50	0.22	-1.0
Well 14 Step	0.63	-9.6	-0.09	-1.1	-0.52	-0.57
Well 14 120-Hour	0.64	-3.0	-0.02	-1.05	-0.47	-0.55

The results in Table 8-1 show that the charge balance error (CBE) exceeds acceptable tolerance (± 5%) for two samples: Offshore 3 surface sample and Well 14 step sample. Given that the chemistry of these samples is Na – Cl dominant, there could be an error in either of these constituents. This discrepancy should have no impact on the interpretation of the results because interpretations rely on differences among less abundant constituents, and because other samples from offshore locations and Well 14 that had acceptable CBE showed overall consistent behavior with the two samples that had high CBE.

The ionic strengths of the caprock Well 14 and volcanic aquifer water samples are concentrated to the level of seawater, while the shallow caprock samples are relatively diluted. This is consistent with the TDS plotted in the Durov diagram (**Figure 8-2**).

The saturation index (SI) is a measure of how close a mineral phase is to thermodynamic equilibrium with a solution, where negative values indicate undersaturation and positive values indicate oversaturation, or super saturation. The PHREEQC results show the shallow caprock samples and the volcanic samples are oversaturated with respect to quartz and undersaturated with respect to the

amorphous silica [SiO_2(am)] phase, and the caprock Well 14 samples are saturated[5] with respect to quartz. This is an expected result because quartz is less soluble and kinetically unfavored in dissolution-precipitation reactions, whereas amorphous silica is more soluble, and its disordered structure readily allows it to dissolve and precipitate in this type of environment. This is supported by Davis (1969), who observed: "Runoff from rains will acquire 1 to 3 ppm SiO_2 during the first few minutes after the rain comes in contact with soil or rocks." Davis' observations, and the short time frame, support amorphous silica as the phase responsible for the observed silica in the sample. The study of Visher and Mink (1964) on the waters of O'ahu showed that "freshwater basalt" groundwater typically has a silica content of 35-45 ppm (mg/L), which is similar to the 35 to 38 mg/L measured in the shallow caprock samples and somewhat higher than the 25 to 30 mg/L measured in the volcanic aquifer. The low silica values, 8.4 to 9.7 mg/L, measured in the caprock Well 14 samples are anomalous compared with the other sample data and literature values. None of the silica values for seawater samples from this study were detected above a reporting limit of 2.3 mg/L, which is unsurprising given that silica concentrations in the oceans are highly variable dependent on location and depth, among other factors. Pumping had no impact on the observed silica concentrations in the volcanic aquifer wells or in caprock Well 14.

[5] The quartz SI of Well 14 is -0.09 to -0.02, which is very close to 0.0, and—accounting for thermodynamic uncertainty—it can be said to be at saturation.

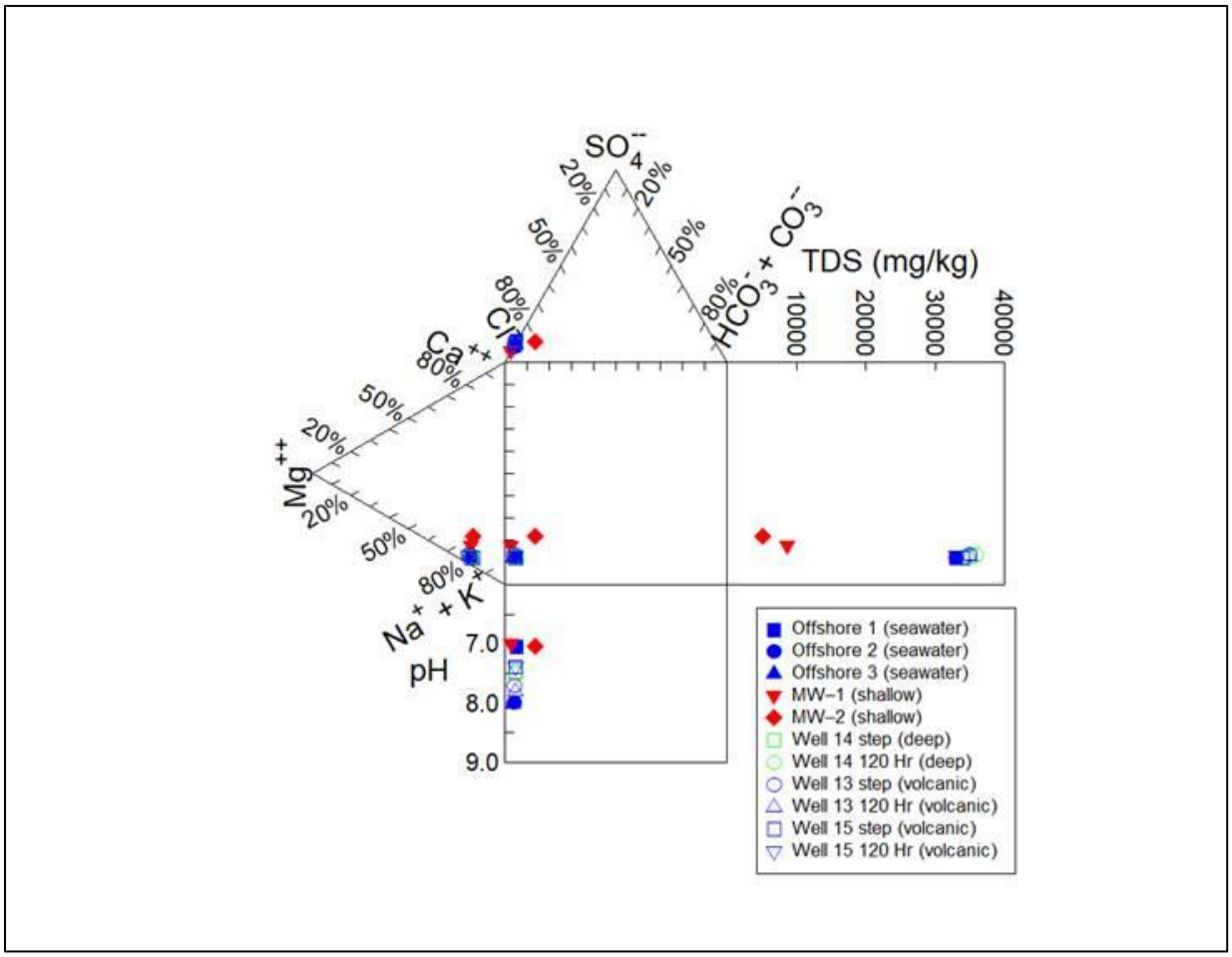


Figure 8-2. Durov diagram of the samples for the current study.

Table 8-2 discusses each of several major ion and trace metal constituents in terms of two questions: (1) whether the waters are chemically distinct; and (2) how pumping affects water chemistry.

Table 8-2. Chemical distinction and effect of pumping between the shallow caprock samples, caprock (Well 14), the volcanic samples, and seawater samples.

Constituent	Chemical Distinction Between Waters			Effect of pumping	Supports hydraulic communication	Notes
	Shallow Caprock/ Caprock (Well 14)	Caprock/ Volcanic	Caprock-Volcanic/ Seawater			
Bromide	Yes – low in the Shallow Caprock, high in Well 14	No – both high	No – all high	Slight increase in Caprock[1]	No	Measured in all samples. Post-pumping increase in Caprock of 10 mg/L
Chloride	Yes – low in the Shallow Caprock, high in Well 14	No – both high	No – all high	None	No	Measured in all samples
Sulfate	Yes – low in the Shallow Caprock, high in Well 14	No – both high[-]	No – all high[-]	None	No	Measured in all samples
Alkalinity	Yes[1] – up to 440 mg/L in the Shallow Caprock, 110 mg/L in Well 14	No – both low	No – all low	None	No	ND < 5 mg/L in MW 1 – probably incorrect
Kjeldahl N	No – present in both	Yes – low or ND in volcanics	Yes – absent in seawater	None	No	
Nitrate/ Nitrite	No – Values are similar	No – Values are similar	Yes – Seawater is significantly higher	None	No	
Phosphate	Yes[1] – Shallow Caprock marginally higher than Well 14	Yes – Volcanic is higher than Caprock	Yes – Seawater is significantly higher	Possible increase in Caprock post-pumping	No	The change in total P in the Caprock is very small and subject to analytical uncertainty

Constituent	Chemical Distinction Between Waters			Effect of pumping	Supports hydraulic communication	Notes
	Shallow Caprock/ Caprock (Well 14)	Caprock/ Volcanic	Caprock-Volcanic/ Seawater			
Calcium	Yes – low in the Shallow Caprock, high in Well 14	Yes – volcanics is slightly higher	No – all high	Caprock increases post-pumping	Inconclusive	Caprock and volcanics concentrations are relatively close.
Magnesium	Yes – low in the Shallow Caprock, high in Well 14	Yes – volcanics is slightly higher	No – all high	Caprock increases post-pumping	Inconclusive	Caprock and volcanics concentrations are relatively close.
Potassium	Yes – low in the Shallow Caprock, high in Well 14	Yes – volcanics is slightly higher	Concentrations are similar, seawater may be slightly lower	Caprock increases post-pumping	Inconclusive	Caprock increases to value greater than the volcanics.
Sodium	Yes – low in the Shallow Caprock, high in Well 14	Yes – volcanics is slightly higher	Caprock slightly lower than volcanics and seawater	Caprock appears to increase post-pumping	Inconclusive	
Strontium	Yes – low in the Shallow Caprock, high in Well 14	No – similar in both	No data for offshore samples	None	No	
Silica	Yes – high in the Shallow Caprock, low in Well 14. Note, Si in Shallow Caprock > volcanic	Yes – low in Well 14 and high in the volcanic	Not detected in seawater	None	No	

Constituent	Chemical Distinction Between Waters			Effect of pumping	Supports hydraulic communication	Notes
	Shallow Caprock/ Caprock (Well 14)	Caprock/ Volcanic	Caprock-Volcanic/ Seawater			
Mercury	Yes[1] – slightly lower in the Shallow Caprock	Yes – higher in Well 14	Yes – lower in seawater	Possible increase in Caprock	No	No communication with volcanics which have a lower concentration than Caprock.
Arsenic	Yes – slightly higher in Shallow Caprock	Yes – not detected in volcanics	Similar As in Caprock and seawater	None	No	
Barium	Yes – Shallow Caprock higher than Well 14	Yes – Well 14 lower than volcanics	Seawater lower than either Caprock or volcanics	Caprock increases post-pumping	No	Increase due to pumping in Caprock approaches Upper Caprock values and exceeds volcanic values
Cadmium	No – ND in both	Yes – ND in Caprock, detected in volcanics	ND in seawater	None	No	ND for all samples except the volcanics
Chromium	Yes – ND in Shallow Caprock	No - Similar	No – all similar	None	No	
Copper	Yes – Higher in Well 14	No[1] - Similar	Yes – low in seawater	Uncertain	Inconclusive	Analyses are suspect.
Iron	Yes[1] – high in both, higher in one Shallow Caprock well	Yes – higher in Caprock	Yes[1] – Caprock higher than both	Caprock decreases w/pumping	Inconclusive	The variability in the iron measurements increases the uncertainty of the data
Lead	Yes[1] – higher in Well 14	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Very low concentrations possible analytic uncertainty

Constituent	Chemical Distinction Between Waters			Effect of pumping	Supports hydraulic communication	Notes
	Shallow Caprock/ Caprock (Well 14)	Caprock/ Volcanic	Caprock-Volcanic/ Seawater			
Manganese	No – high values in both	Yes – Caprock much higher than volcanics	Volcanics similar to seawater. Caprock much higher than both.	None	No	
Vanadium	Yes[1] – MW 1 much higher, MW 2 is less than Well 14	Yes – Caprock is higher	Volcanics similar to seawater	None	No	Would expect V to decrease post-pumping in Caprock if in communication with volcanic
Zinc	Yes[1] – ND in Shallow Caprock and high in Well 14	Yes[1] – Well 14 sample before pumping ~4x higher than volcanics	No – Values are similar	Wells 13 and 14 decreased and well 15 increased post pumping.	No	Concentrations for all samples seem unusually wide ranging
TDS	Yes – Shallow Caprock much lower than Well 14	No – Values are similar	No – Values are similar	None	No	

1 – High uncertainty
ND = Not detected

Based on the information in Table 8-2, the shallow caprock, caprock Well 14, and volcanic aquifers all have unique geochemical signatures and are also distinguishable from seawater. The upper caprock has the most distinguishable water, and differences between caprock Well 14, the volcanic aquifer wells, and seawater are more subtle but definite. The difference between the Well 14 water and the volcanic aquifer waters is most pronounced in their trace metal concentrations. The elements zinc, manganese, vanadium, arsenic, iron, and barium are all higher in Well 14, and silica is lower in Well 14, whereas major ion (Ca, Mg, Na, K, Cl, SO_4, and CO_3) composition is similar in Well 14 and volcanic aquifer samples (similar to the local seawater composition).

Therefore, under static conditions, clear differences exist between the water chemistry in the upper and lower caprock, the volcanic aquifer, and seawater. This supports Hypothesis 1:

> *"There is sufficient separation between the two aquifers under static conditions that each aquifer has developed distinct geochemical characteristics."*

Table 8-2 also provides information on the effect of pumping on the water compositions. Neither Well 13 nor Well 15, screened in the volcanic aquifer, showed any conclusive changes in major ions or trace elements due to pumping. Well 14, screened in the caprock aquifer, showed some minor deviations in the concentrations of the major cations—Ca, Mg, Na, and K, but these minor changes were not matched in the anion concentrations. Evaluation of the pre- and post-pumping water quality data supports Hypothesis 2:

> *"The separation between the two aquifers is enough to maintain those differences even during pumping such that pumping from one aquifer will result in no water being drawn in from the other aquifer."*

Note that lithium, included because it is listed on UCMR 5, was not detected at significant levels. Only Well 13 samples at the start of aquifer testing detected lithium, with concentrations from 0.29 to 0.37 mg/L in duplicate samples. Reporting limits for lithium non-detections in other groundwater samples ranged from 0.05 to 0.5 mg/L, and reporting limits for non-detections in seawater samples were 2 mg/L, such that lithium results were not useful for any geochemical distinctions.

8.3.2 Stable Isotopes Signatures

The stable isotopes of hydrogen and oxygen in the water molecules of the project samples—denoted as δ^2H (deuterium to protium ratio, i.e., hydrogen-2 to hydrogen-1 ratio) and $\delta^{18}O$ (oxygen-18 to oxygen-16 ratio) and expressed in units of permil relative to the Vienna Standard Mean Ocean Water reference standard (‰ VSMOW)—were used to help understand the source(s) of groundwater recharge and if there were pumping-induced changes in the isotopic composition of the waters. Given the location of the site, the stable isotope end members for the area would be local precipitation and seawater isotopic signatures. Data for the KSDF project study groundwater samples and end members are plotted on **Figure 8-3**. Also displayed are the local meteoric water line (LMWL) (Brennis et al., 2024) and the global meteoric water line (GMWL) showing the likely range for stable isotope signatures in precipitation across O'ahu.

The study by Brennis et al. (2024) provided baseline values for δ^2H and $\delta^{18}O$ for local precipitation. The "EB" and "M" collector locations from Brennis et al. (2024) were used to represent the local precipitation end member for the Kalaeloa area on Figure 8-3 because they are proximal to the site and fall within the same $\delta^{18}O$ contour (Figure 2 from Brennis et al., 2024) as each other. These precipitation samples fall on the meteoric water line and have among the most depleted δ^2H and $\delta^{18}O$ values of the Brennis et al. (2024) dataset due to the "rain out" effect, in which the heavier isotopes are progressively depleted in the water vapor in clouds as they move across O'ahu with the prevailing winds from the northeast to the southwest, dropping precipitation in the highlands.

For the KSDF project study, INTERA analyzed six seawater samples (three sets of duplicate samples from the locations described in Section 8.2.1 at various depths and distances offshore from the project

site) to define the stable isotopic signature of local seawater. Local seawater had $\delta^{18}O$ and $\delta^{2}H$ values near zero or slightly positive relative to the VSMOW standard (as expected, because the standard itself is ocean water).

The samples from the shallow caprock monitoring wells, MW 1 and MW 2, have isotopic signatures very similar to that of the local precipitation. Therefore, it may be inferred that the water from these wells represents meteoric recharge. The stable isotope signatures of MW 1 and MW 2 differed from other samples (the shallow caprock groundwater having negative $\delta^{18}O$ and $\delta^{2}H$ values consistent with local precipitation and significantly depleted in heavy isotopes relative to the VSMOW standard and to the offshore seawater samples in the study). These shallow caprock groundwater samples are slightly enriched relative to the two nearest precipitation collector samples shown on **Figure 8-3**. The enrichment in $\delta^{2}H$ and $\delta^{18}O$ is due to evaporation and/or other processes. Mixing between precipitation and seawater as represented by the offshore samples would occur along a line on **Figure 8-3** similar to an evaporation trend (which would characteristically have a slope of about 4) so distinguishing the effects is complex. These samples fall close to the LMWL but show a trend towards lower or more negative isotope values, which could coincide with the trend observed in local seawater samples and in Wells 13, 14, and 15.

The stable isotopic signatures of the caprock Well 14 and the volcanic aquifer Wells 13 and 15 are all similar to the seawater samples' isotopic signatures. These results indicate the volcanic aquifer and the caprock aquifer are both recharged primarily by seawater, and the source of groundwater in Wells 13, 14, and 15 is distinct from shallow groundwater in the upper caprock at the site.

A sample from the volcanic aquifer Makakilo well ($\delta^{18}O$ = -4.29‰ VSMOW and $\delta^{2}H$ = -22.5‰ VSMOW [USGS, 2024]), located a few miles mauka of the KSDF project site, was quite similar to the local precipitation samples plotted on Figure 8-3. The resemblance of this inland volcanic aquifer groundwater to precipitation is consistent with the Makakilo well drawing groundwater of meteoric origin from the freshwater lens. The Makakilo well stable isotope signature contrasts with those of the volcanic aquifer samples from Well 13 and Well 15, which more closely resemble the other saline samples from the study (Figure 8-3). The resemblance of stable isotope signatures of Well 13 and Well 15 to seawater is consistent with the location of those wells makai of the freshwater/saline transition zone. The stable isotope signatures in MW 1 and MW 2 samples are more enriched relative to precipitation than that of the Makakilo well in the mauka volcanic aquifer nearer the likely recharge area for the freshwater lens. These observations are consistent with the conceptual hydrogeologic model depicted in Figure 3-8.

Stable isotope analyses do not appear to show an observable change before and after pumping each of the volcanic aquifer wells (Well 13 and Well 15) for 120 hours. $\delta^{2}H$ values were slightly higher after pumping than before in Well 13 and were slightly lower after pumping than before in Well 15; however, the differences were less than analytical uncertainty of the laboratory measurements, and they were not in a consistent direction.

Stable isotope analyses may show an observable change in the caprock well (Well 14) with $\delta^{2}H$ values lower after pumping for 120 hours than they were before pumping. However, without further information, it would be premature to draw conclusions from this observation. In summary, based on

the stable isotope data, the results indicate a clear distinction between the shallow caprock samples and the Well 14 and volcanic aquifer samples. The stable isotope data do not indicate a clear distinction between the caprock aquifer as represented by Well 14 and the volcanic aquifer samples. Other geochemical parameters may elucidate differences between the caprock and the volcanic aquifer samples. The effect of pumping did not result in any definite changes to the stable isotopic composition of the caprock or volcanic samples.

Hypothesis 1 is partially supported, i.e., the shallow caprock groundwater is isotopically distinct.

> *"There is sufficient separation between the two aquifers under static conditions that each aquifer has developed distinct geochemical characteristics."*

Hypothesis 2 is neither supported nor contradicted.

> *"The separation between the two aquifers is enough to maintain those differences even during pumping such that pumping from one aquifer will result in no not result in water being drawn in from the other aquifer."*

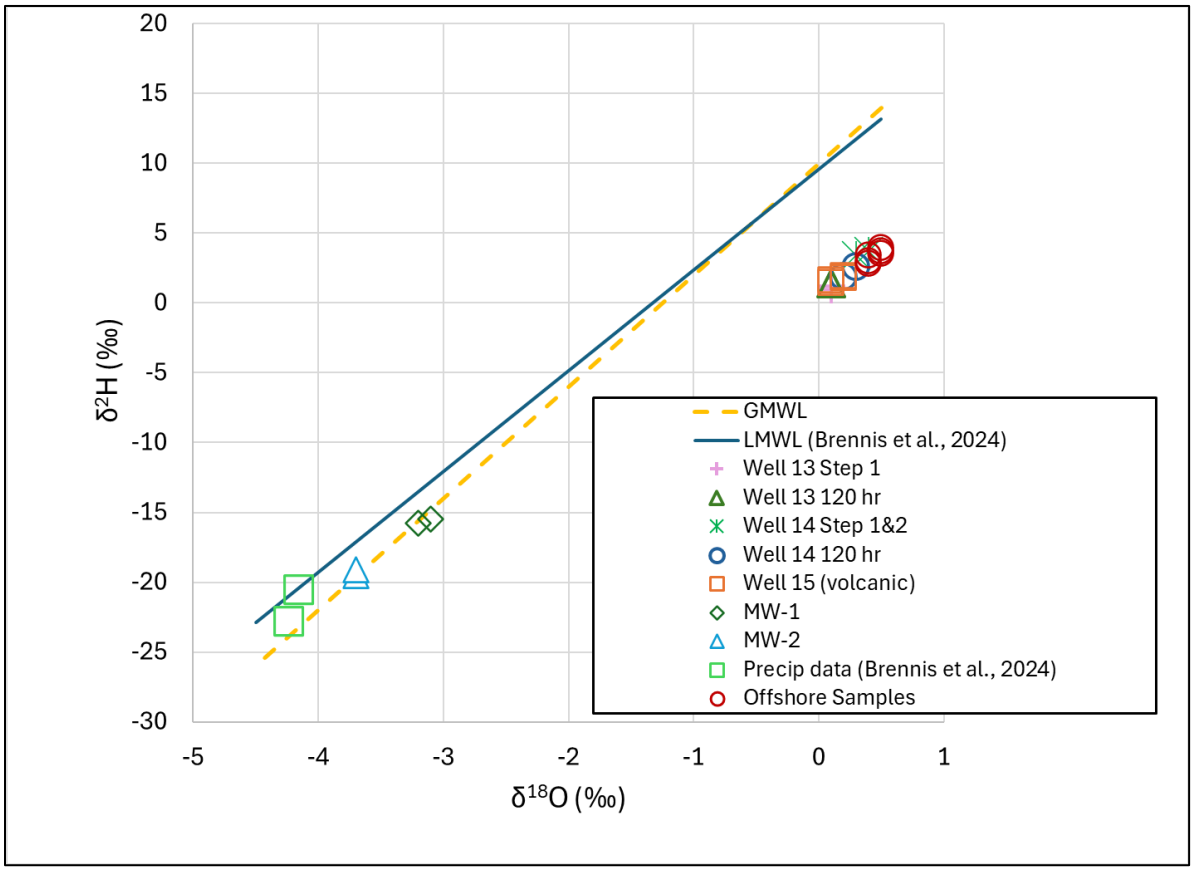


Figure 8-3. Plot of the δ^2H (‰) versus $\delta^{18}O$ (‰) for samples from the study area. Also plotted are the Local meteoric water line (LMWL) of Brennis et al. (2014) and the Global meteoric water line (GMWL) [δ^2H (‰) = 8($\delta^{18}O$ (‰)) + 10].

8.3.3 Residence Time Tracers

Multiple tracers of aquifer residence times were sampled and submitted to ICA and to the University of Utah Dissolved and Noble Gas Lab (Utah). Residence times and geochemical evaluations in general are best interpreted from multiple tracers comprising a multiple lines-of-evidence approach. As of the time of reporting, ICA had reported conventional ^{14}C ages and $\delta^{13}C$ results potentially usable to estimate corrections of ^{14}C ages for mineral exchanges, and Utah provided a much delayed report of results for ^{3}H, noble gases, and SF_6 and had not reported chlorofluorocarbons (CFCs). Interpretations of the Utah data sufficient to address the main hypotheses were completed, although they are summarized only briefly relative to the discussion of ICA results. Since most of the laboratory analyses were completed in time for the final report and overall interpretations were consistent, the principle of multiple lines of evidence is satisfied, and the lack of CFCs data does not impact conclusions.

Conventional ^{14}C ages as reported by ICA are uncorrected or "apparent" average residence times based on direct measurement of ^{14}C. They do not account for mineral exchanges such as dissolution of calcite and dolomite from aquifer solids that dilutes the ^{14}C content of dissolved inorganic carbon from groundwater recharge with old, ^{14}C-dead mineral carbon, causing conventional ages to appear older than actual residence times. For this reason, conventional ^{14}C ages should be considered greater than or equal to actual residence times. With or without corrections, ^{14}C ages are valuable for monitoring for abrupt changes, which in many cases may signal leaks, over-pumping, interception of different groundwater flow paths, and/or potential susceptibility to contamination. In addition to addressing the near-term study objectives, the samples collected in this study provide a baseline for comparison if future sampling of one or more supply wells is desired to monitor for such changes as wells are operated over time.

In the present study samples, seawater samples had younger conventional ^{14}C ages than groundwater samples. Seawater conventional ^{14}C ages ranged from 370 to 620 years before present (BP)[6], in contrast to groundwater conventional ^{14}C ages that ranged from 2,520 to 5,640 years BP. Older ^{14}C ages for groundwater are expected because the water has been out of contact with the atmosphere for longer and has had longer to be affected by carbonate mineral dissolution. The $\delta^{13}C$ of seawater samples ranged from -12.18 to -14.85 ‰ VPDB (Vienna Pee Dee Belemnite)[7]. Groundwater samples had $\delta^{13}C$ ranging from -14.13 to -20.69 ‰ VPDB. Shallow wells MW 1 and MW 2 appear distinct from

[6] Ages reported in years BP are referenced to the year 1950 to avoid confusion with "bomb" ^{14}C injected into the hydrologic cycle by atmospheric nuclear testing from the 1950s through the 1970s. By convention, these ages are reported using the Libby half-life of 5,568 years for ^{14}C instead of the revised half-life of 5,730 years; thus they reflect "radiocarbon years" rather than precise ages in calendar years. All ^{14}C ages were reported with analytical uncertainty of 30 to 40 years BP, which excludes uncertainties involved in interpreting age corrections. In fact, the precision of the reported ^{14}C ages is lower than reported, based on differences of 120 years BP and 170 years BP for sets of duplicate samples from Well 13 and Well 15, respectively.

[7] The units of $\delta^{13}C$ measurements are ‰ VPDB, read "permil VPDB," with the δ notation reflecting the difference between stable isotope ratios (carbon-13 to carbon-12) in samples and the ratio measured in a standard reference material. Permil means parts per thousand in the same sense that percent means parts per hundred. VPDB stands for Vienna Pee Dee Belemnite, the name of the reference standard. If the stable isotope conventions are still confusing, simply think of the sample results as values relative to each other and remember ‰ VPDB are just units of measurement.

other groundwater samples, where MW 1 and MW 2 have a combination of relatively old conventional ^{14}C ages (5,170 to 5,360 years BP) and higher $\delta^{13}C$ values (-14.13 to -14.23 ‰ VPDB). The groundwater samples other than MW 1 and MW 2 had younger conventional ^{14}C ages (2,520 to 4,310 years BP) except for one sample with an older conventional ^{14}C age of 5,640 years BP, and the $\delta^{13}C$ values were lower, ranging from -16.01 to -20.69 ‰ VPDB. These results suggest that MW 1 and MW 2 contain significant amounts of inorganic carbon that dissolved from minerals in the shallow aquifer and diluted ^{14}C concentrations to make shallow groundwater appear to have longer than actual residence times. Deeper groundwater samples showed varying degrees of mineral exchange, where the ^{14}C ages and $\delta^{13}C$ of deep groundwater are distinct from seawater even though seawater is the apparent source of deep groundwater. Given the analytical uncertainties and uncertainties in the extent of mineral exchange, it is not possible to distinguish between the ^{14}C ages and $\delta^{13}C$ of the lower caprock and volcanic aquifer samples with confidence.

A limited number of duplicate sample analyses suggest the repeatability and precision of the sampling and analysis are not as good as implied by the reported analytical uncertainties. Differences between duplicate analyses were up to 170 years BP for ^{14}C and up to 2.62‰ VPDB for $\delta^{13}C$. This degree of uncertainty is not unusual for these types of analyses and still allows useful interpretations, but it implies that interpretation must be done cautiously, especially when the number of samples analyzed is small.

Clark and Fritz (1999) summarized various models for correction of ^{14}C ages using $\delta^{13}C$ measurements, and, in some cases, ion data. Commonly applied models include Pearson-Hanshaw-type models using $\delta^{13}C$ only or the Fontes-Garnier model using multiple constituents. Application of correction models requires knowledge of $\delta^{13}C$ values for end members in mixing or mineral exchange reactions; thus the corrections themselves carry significant uncertainty.

Hufen et al. (1980) reported a range of $\delta^{13}C$ in local limestone material of -5.0 to 0.0 ‰ VPDB—in contrast to a range of -23.0 to -17.0 ‰ VPDB for recharge reference waters—and observed that groundwaters on O'ahu tend to have $\delta^{13}C$ values closer to the former range for samples from caprock settings and closer to the latter range for samples with less alteration of signatures in recharge. Clark and Fritz (1999) stated similar values ($\delta^{13}C$ close to -23 ‰ VPDB in soil carbon dioxide in recharge areas or close to 0 ‰ VPDB for typical carbonate minerals), except they stated a $\delta^{13}C$ enrichment of about 7 to 10 ‰ would be expected between soil carbon dioxide and dissolved inorganic carbon (DIC) in recharge waters (assuming recharge of fresh water in upland settings or an analogous recharge source).

For the present study samples, the hypothesis that seawater is the source of recharge to Wells 13, 14, and 15 would imply that the range measured in the offshore samples, -14.85 to -12.18 ‰ VPDB, might be more representative of recharge prior to dissolution of carbonate minerals than the literature range for terrestrial recharge. Given that the range of -16.01 to -20.69 ‰ VPDB for Wells 13, 14, and 15 is isotopically lighter than either the seawater or the range expected for local carbonate minerals, the end members for DIC in the saline groundwater systems are insufficiently characterized to allow calculation of age corrections for those wells. The conventional ^{14}C ages reported for Wells 13, 14, and 15 may be somewhat greater than the actual groundwater residence times, but the relatively old

recharge implied by their ^{14}C ages is likely an accurate reflection of the relative lack of exchange of DIC suggested by the DIC concentrations and $\delta^{13}C$ measurements.

The $\delta^{13}C$ range of -14.13 to -14.23 ‰ VPDB for MW 1 and MW 2, although within the range for the offshore samples, is consistent with carbonate dissolution in the caprock setting. Consistent with other evidence (e.g., TDS, $\delta^{2}H$, and $\delta^{18}O$) suggesting the shallow groundwater has a dominantly meteoric recharge source, it is possible to estimate mineral exchanges involving dissolution of caprock carbonates into recharge from meteoric water as defined by end member ranges in Hufen et al. (1980) to obtain the $\delta^{13}C$ values measured in MW 1 and MW 2. The extent of carbonate dissolution implied by the calculations corresponds to corrected ^{14}C ages anywhere from modern (close to 0 years BP) to about 4,000 years BP, as compared with the conventional ages of 5,170 to 5,360 years BP. It seems likely based on the caprock setting and the apparent meteoric recharge source that MW 1 and MW 2 have younger groundwater than the deeper wells (i.e., toward the lower end of the range of estimated corrected ages) and that the older conventional ^{14}C ages of MW 1 and MW 2 relative to other samples are the result of carbonate dissolution. PHREEQC calculations support this idea, i.e., the SI calculations indicate shallow groundwater in MW 2 is more saturated with respect to calcite than groundwater samples from the deeper wells (Table 8-1).

Tritium results were reported in tritium units (TU), where 1 TU equals 1 atom of ^{3}H in 10^{18} atoms of hydrogen, or approximately 3.2 pCi/L in water. The earliest ^{3}H analyses of water samples from Hawai'i were done in the 1960s (Lau and Hailu, 1968), too late to determine local background levels unambiguously, but typical atmospheric background levels before 1950 were 1 to 6 TU based on Australian and North American data (Solomon and Gilmore, 2024) or up to 6.6 TU based on analysis of vintage wines (Clark and Fritz, 1999). The detection limits of the Utah tritium analyses were around 0.05 TU, so that a background level of 6 TU would decay to below detectable levels after seven ^{3}H half-lives, or 86 years. Therefore, a "modern" component of recharge based on ^{3}H detection in this study refers to recharge that occurred any time after 1939.

Industrial production of SF_6 began in 1953, and the SF_6 concentration in the atmosphere has been steadily increasing since the mid-1970s (Solomon and Gilmore, 2024), so conservatively, a "modern" component of recharge based on SF_6 detection in this study refers to recharge that occurred any time after 1953. Due to possible natural production of SF_6 at low levels or possible contamination of samples by atmospheric air during sampling, actual groundwater residence times are greater than or equal to apparent ages estimated from SF_6.

Tritium, noble gases, and SF_6 analyses indicate that all groundwater samples have modern components, with significantly younger apparent recharge ages for the caprock aquifer than for the volcanic aquifer.

The ^{3}H activities of the volcanic wells were lower than any other samples including seawater (0.26 to 0.31 TU), Well 14 (0.28 to 0.29 TU), and shallow caprock wells MW1 and MW2 (0.98 to 1.07 TU).

Volcanic aquifer Well 13 had ^{3}H activities ranging from 0.04 to 0.09 TU, not far above detection limits, and not statistically different before and after pumping. Apparent recharge ages of Well 13 samples based on ^{3}H, ^{3}He, and other noble gases ($^{3}H/^{3}He$ ages) were ~70 to 86 years, however it is likely that

apparent ages reflect a mixture of older and younger recharge components, including possibly much older groundwater based on radiocarbon apparent ages.

Volcanic aquifer Well 15 had ^3H activities ranging from <0.05 to 0.21 TU, where the 95% confidence limits and differences between duplicate samples indicate the non-detection and the detections are not statistically different from each other, and no significant difference occurred before and after pumping. Apparent $^3H/^3He$ recharge ages of Well 15 samples were ~60 to 75 years, again likely reflecting a mixture of older and younger recharge.

Apparent $^3H/^3He$ recharge ages of Well 14 samples were ~45 to 50 years and were statistically identical before and after pumping.

Apparent $^3H/^3He$ recharge ages of MW1 and MW2 samples were ~5 to 15 years.

Apparent ages interpreted from SF_6 were approximately 25 to 30 years for shallow caprock wells MW1 and MW2, 40 to 45 years for Well 14, and 35 to 75 years for Wells 13 and 15. The Well 14 120-hour sample had a very large headspace and anomalous noble gas measurements such that its apparently very low SF_6 age (close to 0 years) is not considered reliable.

Both $^3H/^3He$ ages and SF_6 ages rely on assumptions that recharge has moved through aquifers without mixing, whereas any well likely draws water from multiple pathways and mixes older and younger groundwater. With that caveat, the residence time tracers indicated consistently younger recharge for the caprock aquifer relative to the volcanic aquifer.

8.3.4 Radiological Analyses

The radiological analyses for the study included gross alpha, gross beta, radium-226/228, strontium-90, and tritium. Radiological analyses are available for the three offshore samples, the caprock aquifer (MW 1, MW 2, and Well 14), and the volcanic aquifer (Well 13 and Well 15), including static and post-pumping conditions for Wells 13, 14, and 15. Uranium was also measured in all groundwater samples as total uranium metal and was not detected above reporting limits of 20 µg/L or lower in any groundwater samples. Tritium was submitted for specialized low-level analysis by the helium ingrowth method as discussed in Section 8.3.3.

Results of radiological analyses of multiple groundwater samples from Well 13 and Well 15 in this study and in KD (2025) consistently show no significant radioactivity except for naturally occurring beta activity attributable to potassium-40 at the natural abundance expected for groundwater derived from a seawater origin. Indeed, groundwater gross beta activities in high-salinity Wells 13, 14, and 15 were indistinguishable from the offshore samples at 95% confidence (**Figure 8-4**). The error bars show the 2-sigma uncertainty reported for each gross beta measurement, where larger beta activities have correspondingly larger measurement uncertainties. Only the shallow caprock wells MW 1 and MW 2 had any significant difference in gross beta activity from any other wells, consistent with their lower potassium concentrations. Gross beta activity was <43±30.3 pCi/L in MW 1 and 23.8±8.14 pCi/L in MW 2, and it ranged from 188±54 to 397±78 pCi/L in the volcanic aquifer (Wells 13 and 15), from <176±126 to 289±66.1 pCi/L in Well 14, and from 242±60.8 to 304±63.9 pCi/L in the offshore samples.

Calculation of potassium-40 activity from the measured potassium concentration, according to the formula prescribed by the EPA (see Section 3.3.4.2), confirms it accounts for the measured beta activity. Most samples plot below or on the 1:1 line on Figure 8-4, indicating that potassium was high enough to account for all the measured gross beta activity. The only sample plotting somewhat above the 1:1 line is a duplicate of a sample that plots below the line, so that pair of samples is interpreted to be close to the line within the accuracy of the analysis.

Tritium was present at extremely low levels consistent with atmospheric sources. The maximum tritium activity in any of the study samples was 1.07 TU in a shallow caprock groundwater sample, which is more than 5,000 times lower than the screening level of 20,000 pCi/L that would correspond to 4 mrem/yr. Tritium in volcanic aquifer wells was lower than in the shallow caprock wells by an additional one to two orders of magnitude and was lower than in Well 14 or seawater samples. As previously noted, tritium is a beta emitter, but it is not detected in gross beta analyses.

The other analyzed beta emitting radionuclides, naturally occurring radium-228 and anthropogenic strontium-90, were not present at activities that could account for any significant fraction of the beta activity. Strontium-90 was not detected in any samples; nor was uranium, which has both naturally occurring and anthropogenic isotopes. The absence of elevated activities of radionuclides associated with anthropogenic sources is consistent with a hypothesis that beta activity is naturally occurring and inconsistent with a hypothesis that radioactive contamination is present.

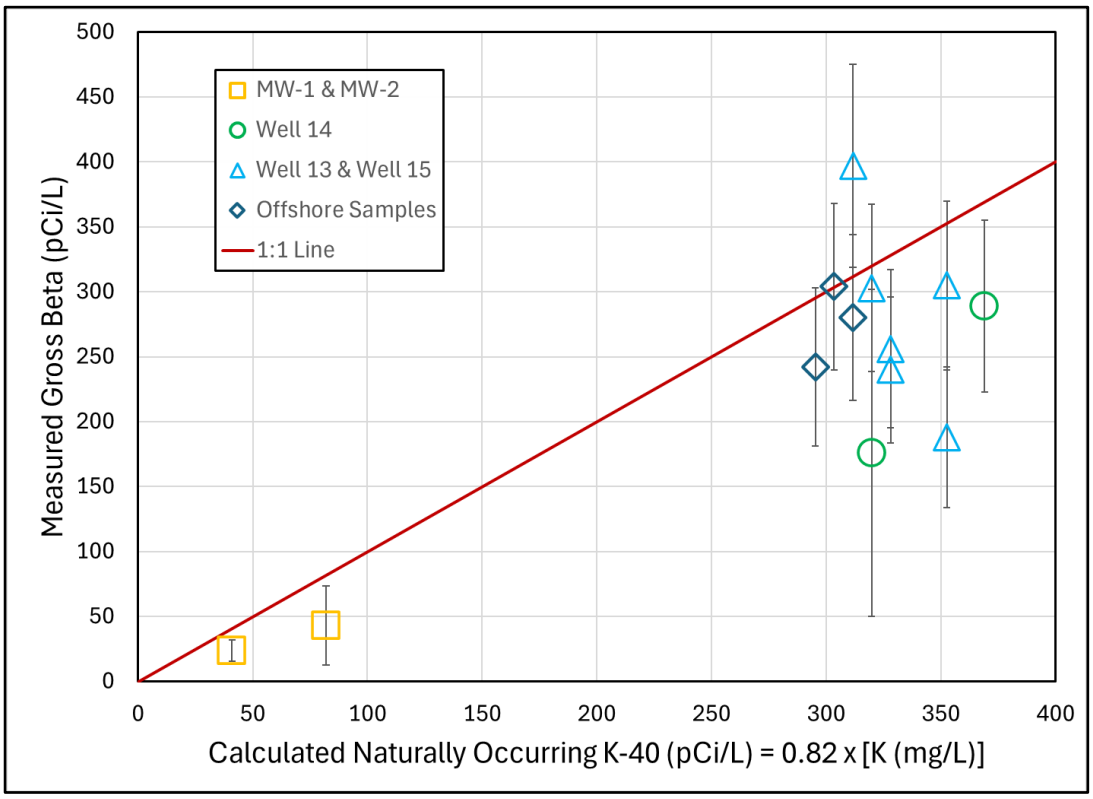


Figure 8-4. Relationship of measured gross beta activity to naturally occurring beta activity predicted from measured potassium concentration.

The radiological data from the different aquifers and seawater were compared to determine if the waters were distinguishable based on these analyses and whether pumping had an impact on the measured data. The results are presented in **Table 8-3**.

Table 8-3. Radiological distinction and effect of pumping between the shallow caprock samples, caprock (Well 14), the volcanic samples, and seawater samples.

Constituent	Chemical Distinction Between Waters: Shallow Caprock/ Caprock (Well 14)	Chemical Distinction Between Waters: Caprock/ Volcanic	Chemical Distinction Between Waters: Caprock-Volcanic/Seawater	Effect of pumping	Supports hydraulic communication	Notes
Gross Beta	Yes – Shallow Caprock much lower	No – values similar	No[1] – values similar	No	Inconclusive	Gross Beta consistent with K-40 in all samples
Radium-226	No – values similar	Yes –Caprock is higher	Yes[1] – Caprock is higher	No	Inconclusive	
Radium-228	Inconclusive	Inconclusive	Inconclusive	No	Inconclusive	Mostly non-detections and analytical uncertainties exceed differences
Strontium-90	Not detected in groundwater	Not detected in groundwater	Not detected in groundwater	No	Inconclusive	
Gross Alpha	Yes[1] – Well 14 is somewhat higher	Yes[1] –Caprock is higher	Yes[1] – Caprock is higher	No	Inconclusive	
Tritium	Yes – Shallow Caprock much higher	Yes – Caprock is higher	Yes – Volcanic lower than Caprock or Seawater	No[1]	Inconclusive	Well 14 similar to Seawater
Total Uranium	Not detected in groundwater	Not detected in groundwater	Not detected in groundwater	Inconclusive	Inconclusive	

1 – High uncertainty

Based on the information in Table 8-3, the water of the shallow caprock is distinct from other samples (with much lower gross beta activity and much higher tritium activity), consistent with the general water quality and stable isotope data that lead to the same conclusion. With respect to the waters of the caprock aquifer as represented by Well 14 and the waters of the volcanic aquifer, the caprock had higher gross alpha and radium-226 activity (which is unsurprising given the naturally occurring radionuclides associated with carbonate minerals) and higher tritium, although caution is warranted as all values were low and measurement uncertainties and differences between duplicate samples were relatively large. The effect of pumping is not observed in the data because any apparent changes fall within the range of uncertainty. Therefore, the radiological data neither support nor refute that hydrologic communication between the caprock and the volcanic aquifers exists.

8.3.5 Anthropogenic Constituents

The parameters discussed in this section were selected as part of the KSDF sampling plan to evaluate whether there are discernible differences in concentrations in the caprock and volcanic aquifers that may be attributed to anthropogenic activity. Organic constituents, including petroleum hydrocarbons and several PFAS compounds, were found to impact the caprock aquifer and thus proved useful as tracers of anthropogenic contamination. PFAS, in particular, are mobile, persistent, and detectable at extremely low concentrations, so non-detection of anthropogenic constituents (including PFAS) in the volcanic aquifer wells after the extended pumping tests provides strong evidence in favor of hydraulic isolation of the caprock and the volcanic aquifers. Well 13 in the volcanic aquifer had no evident impacts from any anthropogenic contaminants under static or post-pumping conditions. Well 15 detected low levels of two PFAS compounds in the sample collected after pumping the first three well casing volumes, but the final sample collected after pumping millions of gallons detected no PFAS nor any other anthropogenic constituents. For reasons explained in **Section 8.3.5.3**, the initial Well 15 sample is interpreted to reflect residual influence of caprock water that leaked into the well prior to completion of well repairs in April 2025. Samples collected in the shallow caprock aquifer (MW 1 and MW 2), caprock aquifer (Well 14), and volcanic aquifer (Well 13 and Well 15)—including static and post-pumping conditions for Wells 13, 14, and 15—were analyzed for a full suite of organic substances, as laid out in the Final WP. First, the results for inorganic constituents with anthropogenic sources will be reviewed briefly in **Section 8.3.5.1**; then the organics will be covered, with non-detected compounds summarized, in **Section 8.3.5.2**; and detections will be discussed in more detail in **Section 8.3.5.3**.

8.3.5.1 Inorganic Contaminants

In addition to some general water quality constituents briefly discussed in Section 8.3.1 and the non-detections of strontium-90 and uranium mentioned in Section 8.3.4, the other inorganic constituents analyzed with notable potential to reveal anthropogenic influences were hexavalent chromium and inorganic nitrogen such as nitrate. Hexavalent chromium, a possible historical constituent of cooling water, was analyzed at FQ Labs for all groundwater samples by Standard Method 3500-Cr-B at a reporting limit of 0.001 mg/L; none was detected in any samples.

Nitrate, nitrite, and ammonia may have both natural and anthropogenic sources. Simulated nitrate concentrations in shallow groundwater near the KSDF project site were predicted to range from 1.0 to 3.5 mg/L in the Whittier and El-Kadi (2009) study of OSDSs, and other sources such as the former feedlot could also have potentially released nitrate to groundwater. Seawater samples had nitrate concentrations of 1.45 to 1.48 mg/L, but site groundwater samples were lower in nitrate than the seawater measurements or the predicted groundwater concentrations. Caprock groundwater samples (MW 1, MW 2, and Well 14) detected nitrate at 0.09 to 0.16 mg/L. Volcanic aquifer groundwater samples detected nitrate at 0.099 to 0.146 mg/L, except nitrate in Well 15 decreased to non-detectable levels after pumping. Nitrite was not detected in any groundwater samples. Total Kjeldahl nitrogen, which is the sum of ammonia nitrogen and organic nitrogen, ranged from 0.20 to 0.72 mg/L in caprock groundwater samples (MW 1, MW 2, and Well 14), whereas it was not detected in volcanic aquifer groundwater samples at a reporting limit of 0.20 mg/L, except for one detection of 0.23 mg/L

in one of two duplicate samples from Well 13 before pumping. Pumping Well 13 and Well 15 caused no increases in any nitrogen species concentrations. The observations show no evidence that pumping drew water impacted by OSDSs, which is consistent with negative findings of OSDS indicators in biological testing reported in KD (2025).

8.3.5.2 Non-Detected Organic Contaminants

A list of 80 VOCs was analyzed by EPA Method 624.1 with none detected in any groundwater samples before or after pumping. The list included individual compounds found in petroleum hydrocarbons, halogenated compounds, ketones, ethers (including MTBE, ETBE, DIPE, and TAME), and alcohols (including ethanol, TBA, and isopropanol). Reporting limits of most VOCs were 1 µg/L, with reporting limits for some compounds as low as 0.5 µg/L and the rest <= 10 µg/L, except for acetone (12 µg/L), isopropanol (50 µg/L), and ethanol (100 µg/L). In addition to the 80 target VOCs, three VOCs (amyl acetate, ethyl acetate, and isopropyl acetate) were reported as examples of TICs that were sought and not detected.

Ethylene dibromide (EDB, also known as 1,2-dibromoethane) was analyzed for all groundwater samples, both by EPA Method 624.1 at a reporting limit of 1 µg/L and by EPA Method 8011 at a reporting limit of 0.019 µg/L; no EDB was detected in any samples.

A list of 78 SVOCs was analyzed by EPA Method 625.1, with none detected in any groundwater samples before or after pumping. Reporting limits ranged from 9.4 to 54 µg/L depending on the properties of each compound. In addition to the 78 target VOCs, six SVOCs (2,3,4,6-tetrachlorophenol, 2,3,4-trichlorophenol, 2,3,6-trichlorophenol, 2,3,7,8-TCDD, 3,4,5-trichlorophenol, and phenylacetic acid) were reported as examples of TICs that were sought and not detected.

1,4-dioxane was analyzed for all groundwater samples by a version of EPA Method 625.1 with selective ion monitoring and was not detected above reporting limits of 0.29 to 0.34 µg/L.

A list of 22 organochlorine pesticides was analyzed by EPA Method 608.3 with none detected in any groundwater samples before or after pumping. Reporting limits ranged from 0.0019 to 0.11 µg/L depending on the properties of each compound.

A list of 7 PCBs was analyzed by EPA Method 608.3 with none detected in any groundwater samples before or after pumping. Reporting limits ranged from 0.094 to 0.11 µg/L for each sample.

8.3.5.3 Detected Organic Contaminants

TPH was analyzed for all groundwater samples by EPA Method 8015B. To test for the broadest range of potential hydrocarbons, TPH was determined for the carbon range C7 to C44, which spans most of the combined range of the TPH-G, TPH-D, and TPH-O fractions. To obtain lower reporting limits, the TPH-G (C4 to C12) and TPH-D (C10 to C28) fractions were also tested individually. Note that TPH analyses by EPA Method 8015B may detect hydrocarbons from sources other than petroleum in some cases. TPH-G was not detected in any groundwater samples at a reporting limit of 50 µg/L. TPH-D and TPH were detected in caprock groundwater samples and were not detected in volcanic aquifer groundwater samples before or after pumping. In the shallow caprock wells, TPH detections of

290 µg/L in MW 1 and 240 µg/L in MW 2 were somewhat higher than TPH-D detections of 210 µg/L in MW 1 170 µg/L in MW 2. The pattern of the results is consistent with TPH comprised dominantly of diesel range hydrocarbons (possibly a weathered diesel product given the non-detections of VOCs and TPH-G). Well 14 detected 75 µg/L of TPH-D initially and 60 µg/L of TPH-D after pumping, indicating it was drawing water containing hydrocarbons similar to those in the shallow caprock aquifer. The reporting limit for TPH was 250 µg/L for the Well 14 samples, so TPH could not be detected at the lower concentrations in Well 14 except by using the TPH-D test. The lower concentrations in Well 14 could potentially reflect dilution of more contaminated upper caprock aquifer water by cleaner water from the lower caprock aquifer when pumping Well 14. The fact that concentrations declined little over the extended pumping test suggests a relatively large zone of caprock groundwater containing hydrocarbons, so the fact that Well 13 and Well 15 did not detect TPH-D after extended pumping tests suggests hydraulic isolation of the caprock and the volcanic aquifers.

Some low concentrations of TOC (reported as non-purgeable organic carbon) and/or hexane extractable material ("oil and grease") were detected in some samples from caprock wells MW 1 and Well 14 and not detected in other samples, generally consistent with the pattern for TPH-D, except TPH-D was detected more broadly because TPH-D was the most sensitive among these analyses of bulk organic carbon.

A list of 40 PFAS compounds was analyzed for all groundwater samples by the final EPA Method 1633. The list included PFAS that are carboxylic acids (with abbreviations ending in "A"), sulfonic acids (with abbreviations ending in "S"), fluorotelomer compounds (with abbreviations containing "FT"), and other PFAS compounds. Reporting limits ranged from 1.1 to 16 ng/L, with all except four compounds having reporting limits <= 3.6 ng/L. Of the 40 PFAS compounds analyzed, 27 were not detected in any samples (see Appendix I).

Shallow caprock monitoring wells MW 1 and MW 2 detected the greatest number of PFAS compounds and generally the highest concentrations among the samples analyzed, with total PFAS detections of 1,611 ng/L at MW 1 and 1,762 ng/L at MW 2. The 13 PFAS compounds detected at MW 1 and MW 2 were all carboxylic acids and sulfonic acids (the same PFAS compounds were detected in both wells in similar distributions). The PFAS with the highest concentrations detected were perfluorohexanesulfonic acid (PFHxS, at 500 ng/L in MW 2 and 460 ng/L in MW 1), PFOS (280 ng/L in MW 1 and also 280 ng/L in MW 2), and PFBA (230 ng/L in MW 1 and 210 ng/L in MW 2). The PFOS concentrations were above the MCL of 4 ng/L recently promulgated by EPA, as were the concentrations of PFOA (93 ng/L in MW 2 and 84 ng/L in MW 1), which also has an MCL of 4 ng/L. In order from shortest- to longest-chain compounds the PFAS detected in the shallow caprock wells were: perfluorobutanoic acid (PFBA), PFBS, perfluoropentanoic acid (PFPeA), perfluoropentanesulfonic acid (PFPeS), perfluorohexanoic acid (PFHxA), PFHxS, perfluoroheptanoic acid (PFHpA), perfluoroheptanesulfonic acid (PFHpS), PFOA, PFOS, perfluorononanoic acid (PFNA), perfluorodecanoic acid (PFDA), and perfluoroundecanoic acid (PFUnA).

A similar distribution of PFAS to that observed in MW 1 and MW 2 was detected in Well 14 before and after pumping. The PFOS concentration in Well 14 (6.8 ng/L before pumping and 7.1 ng/L after pumping) remained above the MCL. PFHxS had the highest concentrations in Well 14 (8.2 ng/L before pumping and 8.4 ng/L after pumping). Fewer PFAS compounds were detected in Well 14 than in the

shallow wells, and total PFAS concentrations were lower (26.5 ng/L before pumping and 23.4 ng/L after pumping, with pumping causing negligible changes), but the proportions were much like those expected for a PFAS release similar to that impacting MW 1 and MW 2 after further dilution and/or migration. That is, compounds that were present in lower proportions in a release would be the first to be diluted below reporting limits when mixing with clean water along a migration pathway, and the sulfonic acids and longer-chain carboxylic acids would typically be retained closer to the source than the more mobile short-chain and carboxylic acid PFAS compounds. Transformation of precursor compounds would also tend to increase the proportion of shorter-chain PFAS compounds relative to longer-chain PFAS compounds. Regardless of the source, multiple samples confirm contamination from PFAS and TPH-D present in caprock groundwater drawn by Well 14.

Sampling of Well 15 initially detected the fluorotelomer compound 1H,1H,2H,2H-perfluorooctane sulfonic acid (6:2 FTS) at 8.8 ng/L and PFOS at 1.6 ng/L and detected no other PFAS compounds. The PFOS detection and the reporting limit of the PFOA non-detection in Well 15 were below MCLs. No PFAS compounds were detected in Well 15 after the extended pumping test; the 6:2 FTS concentration decreased below the reporting limit of 3 ng/L, and PFOS decreased below the reporting limit of 1.5 ng/L. The non-detections of PFAS and other organic contaminants in Well 15 after pumping were confirmed by duplicate samples. The initially detected concentrations were not much above the reporting limits, so—although this discussion treats them as positive detections—they are considered to have lower confidence than concentrations further above reporting limits. The PFAS compounds detected in Well 15 (only 6:2 FTS and PFOS) do not match the distribution of PFAS compounds detected in the caprock groundwater. No 6:2 FTS was detected in any other samples in the study. Fluorotelomer compounds and PFOS were historically manufactured using different processes and would be expected to have been used in different products (but potentially for some of the same applications such as AFFF), so detection of 6:2 FTS suggests a different source than that impacting the caprock groundwater samples. Both 6:2 FTS and PFOS are less mobile than the shorter chain sulfonic acids and carboxylic acids (e.g., PFHxS and PFBA) found in the caprock wells, so it is unlikely these would be the only PFAS compounds detected in a deep well from a release that migrated along a natural pathway.

Based on the preceding observations and the timing of sample collection summarized in Section 5.0, it is more likely that the previously existing leak in Well 15 short-circuited a pathway from near the source of a PFAS release and that the installation and grouting of the steel liner subsequently eliminated that pathway into the well. Given that the three well casing volumes pumped before collecting the initial Well 15 sample were the first water purged after field staff had to rigorously bail to remove significant accumulation of fill from the bottom of the well in February 2025 and then install the liner in April 2025, it is plausible that a greater volume of pumping was required before the last traces of constituents from the earlier leak were purged. The non-detections of PFAS compounds in Well 15 after pumping millions of gallons and in Well 13 after pumping additional millions of gallons are inconsistent with any ongoing occurrence of PFAS in the volcanic aquifer.

No PFAS compounds were detected in Well 13 before or after pumping, consistent with overall good quality water in Well 13 indicated by the study. KD (2025) similarly reported that analyses of samples collected from Well 13 during the RO pilot test were analyzed for a list of 40 PFAS compounds, and

none were detected. The PFAS detections in multiple caprock groundwater samples; the consistent non-detections for PFAS compounds in multiple Well 13 samples in both studies, both of which pumped the well strongly; and the non-detections in Well 15 after the extended pumping test provide a strong line of evidence for hydraulic isolation of the caprock and the volcanic aquifers.

8.4 Final Outcome

The KSDF water sampling and analysis provided a comprehensive dataset to evaluate the geochemical and hydrologic relationships of the caprock and volcanic aquifers and to test the two primary study hypotheses. Analyses included general water chemistry, stable isotopes, groundwater age or residence time tracers, radiological parameters, and anthropogenic constituents.

The results demonstrate that the shallow caprock wells (MW 1 and MW 2), caprock well (Well 14), and volcanic aquifer wells (Well 13 and Well 15) exhibit distinct geochemical signatures. The shallow caprock aquifer is characterized by low TDS, high silica, isotopic compositions indicative of meteoric recharge, relatively young recharge ages, and contamination from anthropogenic constituents including PFAS and petroleum hydrocarbons. The caprock aquifer as represented by Well 14 and the volcanic aquifer both show high TDS and isotopic signatures consistent with seawater recharge. However, Well 14 detected some of the same anthropogenic contaminants found in the shallow wells, whereas the volcanic aquifer wells drew no such contaminants into the volcanic aquifer after extended pumping tests. Well 14 had lower silica than other wells, which did not show any significant change after pumping. These data indicate hydraulic separation between the caprock and the volcanic aquifer systems. Well 13 did not detect any of the anthropogenic contaminants tested and did not show levels of any contaminants that have both natural and anthropogenic sources to be elevated relative to seawater. Well 15 initially detected traces of constituents attributed to previous leakage of caprock aquifer water into an incompletely sealed portion of the well prior to the April 2025 repairs. Water quality in Well 15 was the same as that in Well 13 after pumping sufficiently to purge all traces of the previous leakage.

Pumping tests conducted in the volcanic (Wells 13 and 15) and caprock (Well 14) aquifers produced no changes in water chemistry that would indicate cross-formational flow. Minor variations in select cations within the caprock groundwater following pumping fall within analytical uncertainty and do not indicate induced mixing or hydraulic communication between aquifers. Overall, the combined geochemical, isotopic, and radiologic evidence supports the conclusion that the caprock and volcanic aquifers are hydraulically distinct systems under both static and pumping conditions.

9.0 Final Conceptual Site Model

A CSM is a dynamic representation of the physical conditions that define the hydrogeologic setting of an area. The purpose of the CSM is to illustrate the hydrogeologic framework, geochemistry, groundwater flow systems, and potential interactions between HSUs. The Final CSM provided in this report integrates results from desktop research, onsite geophysical logging, aquifer testing, and water quality investigations. This Final CSM provides a detailed and reliable understanding of the hydrogeologic connection in the western part of the ʻEwa plain and, more specifically, the hydrogeologic connection of the caprock and volcanic aquifers underlying the KSDF proejct site.

9.1 Study Design

INTERA developed a 3D geologic solid model (3D model) of the KSDF project site using Leapfrog Works 3D modeling software. Leapfrog Viewer is a free and downloadable software package that the client or other stakeholders can use to view the hydrogeological model. The 3D model was created using publicly available datasets compiled from multiple state and federal agencies, including the State of Hawaiʻi Office of Planning and Sustainable Development, the Hawaiʻi Department of Land and Natural Resources, CWRM, DOH, the University of Hawaiʻi, the USGS, and NOAA. The datasets include topography and bathymetry derived from NOAA Continuously Updated Digital Elevation Models, well logs and associated lithologic data and cross-sections gathered from the CWRM, surficial geologic maps gathered from the USGS, satellite imagery obtained from Google Earth, rainfall data acquired from the Rainfall Atlas of Hawaiʻi created by the University of Hawaiʻi at Mānoa Geography Department, and recharge data obtained from the Hawaiʻi Groundwater Recharge Tool created by the University of Hawaiʻi and USGS. GIS data of Department of Land and Natural Resources and DOH aquifer boundaries, roads, streams, National Hydrologic Datasets, and watershed boundaries were collected from the Office of Planning and Sustainable Development.

The 3D model was developed based on 247 well logs and lithologic data that INTERA acquired. The log data were compiled from the CWRM files, DOH UIC files, University of Hawaiʻi and WRRC documents, and previous studies with published data. The gamma ray log data recorded by RECONPetro (Appendix E) for Well 13, Well 14, and Well 15 show the mud layers in the 3D model. The CSM elements also include streams/rivers, roads, and the KSDF project site boundary. **Figure 9-1** shows the extent of the modeled area. **Section 9.2** defines the geologic layers incorporated into the model and depicted in Figure 9-1.

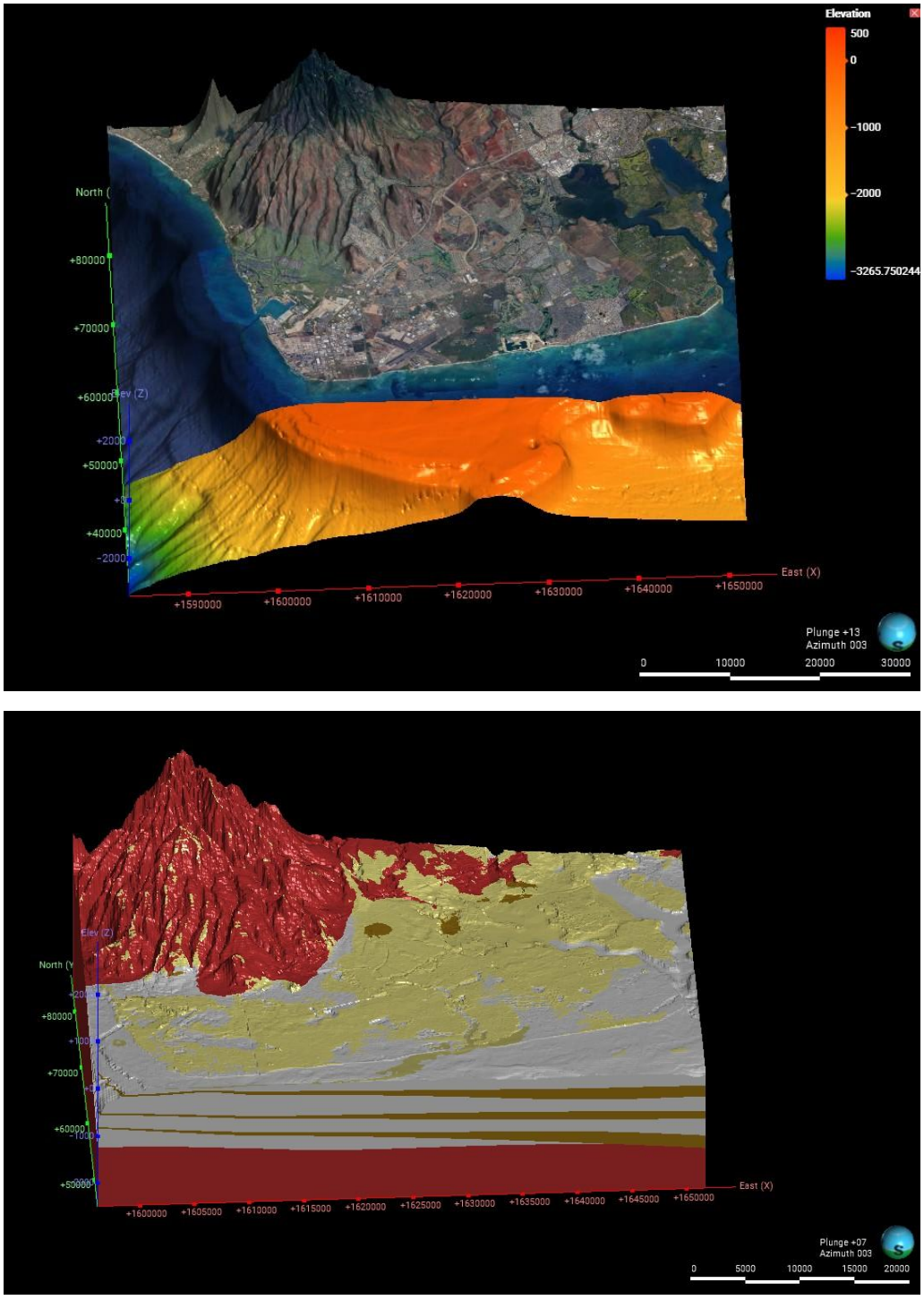


Figure 9-1. Extent of the KSDF geologic model with geologic layers illustrated (bottom), and with aerial photography overlaid (top). Geologic layers are tan for alluvium, brown for mud, grey for reef limestone, and red for basalt.

9.1.1 Model Properties – Bounds Grid Size, Layers

The horizontal "X" (east-west) and "Y" (north-south) extents of the 3D model bounds were set to encompass the KSDF site fully and extend along the southwest shore of Oʻahu within a rectangular area. The 3D model represents an area of 76.7 square miles, 10.5 miles east to west and 7.3 miles from north to south.

The vertical "Z" (elevations) extents of the 3D model were set to the topography as the upper bounds, and an elevation of 2,500 feet below msl as the lower bounds. The 3D model represents a vertical profile of 5,200 feet from the highest topographic point of 2,700 feet above msl to the lower bounds of 2,500 feet below msl.

A horizontal projection of NAD 1983 State Plane Hawaiʻi 3 FIPS 5103 (US Feet) was applied to all mapped data. This projection was used to standardize all location data (X, Y, and Z) to feet, while keeping distortions and exaggerations of horizontal data to a minimum.

9.1.2 Cross-Sections

Regional cross-sections highlight the primary geologic surfaces and features across the southwest corner of Oʻahu within the model, while local cross-sections can be used to depict more detailed geologic features within and around the KSDF project site. Site cross-section A-A' and local cross-sections B-B' and C-C' are mapped in **Figure 9-2** and **Figure 9-3**, respectively. The cross-sections are used to develop two dimensions that allow for easy visualization and interpretation of the subsurface both regionally and on site.

Figure 9-2. Regional (yellow) and local (red) cross-section paths with well log locations (light blue points).

Figure 9-3. Local (red) cross-section paths with well log locations (light blue points).

9.2 Geologic Layers

The 3D model defines five geologic layers, which include two unconsolidated formations and two consolidated formations. Lithology notes and descriptions from well logs were categorized into geologic layers. Each layer represented in the model is described in more detail in the following subsections.

9.2.1 Unconsolidated Layers

The 3D model combines unconsolidated deposits into two broad categories: alluvium and mud. The alluvium layer includes calcareous sand, gravel, and silt, as defined by the person describing the geology. Mud deposits, although alluvial in nature, are differentiated and occur throughout the reef limestone; they include well log intervals defined as mud, clay, lagoonal mud, or muddy limestone. These deposits vary from one to three major layers across the modeled area depending on available lithologic data and well log depth. The major mud layers generally dip to the southeast, and well lithologic and gamma ray data reveal interbedded marine and terrestrial sediments, as illustrated in Oki et al. (1996) schematic cross-sections of the 'Ewa area. Due to sparse geologic data outside of the study area, the horizontal extent of mud deposits are inferred in the model layers.

9.2.2 Volcanics and Reef Limestone Layers

The layers defined in the KSDF 3D model are calcareous reef limestone and basalt. These layers are illustrated in **Figure 9-1**, with reef limestone (gray) overlying basalt (red) in the 3D model. Reef limestone was assigned to driller log descriptions including limestone, coral reef, indurated sand, and gray rock. Well log labels for basalt included hard/soft basalt, red rock, and volcanics. A weathered basalt and saprolite layer identified in Wells 13 and 15 is defined separately from the basalt layer in the model cross-sections; this layer is inferred in the horizontal extent of the cross-sections where data are lacking.

9.3 Results

3D model cross-sections of all geologic layers are illustrated in **Figures 9-4** through **9-7.** Well log data outside of the site are relatively sparse and shallow, so horizontal extent of mud layers is inferred. Cross-section A-A' (Figure 9-4) illustrates correlating mudstone layers between Wells 13, 14, and 15, identified using gamma ray data. The regional cross-section D-D' mapped in Figure 9-2 (yellow) and illustrated in Figure 9-7 spans from west to east from a test bore hole logged by Geolabs, Inc. and through the KSDF site to the 'Ewa Coastal Plain well (Well No. 3-1959-005).

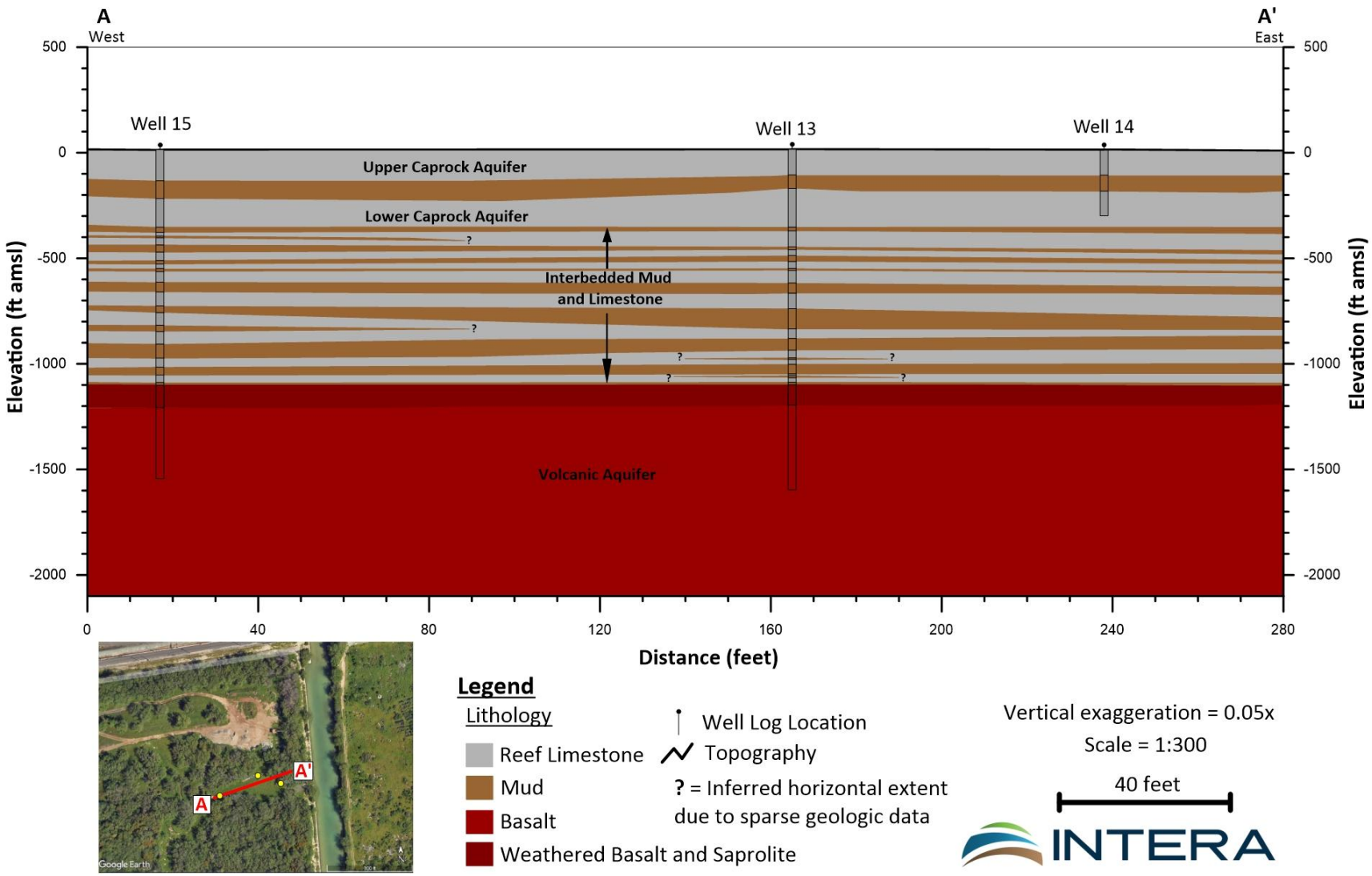


Figure 9-4. Site cross-section running west-east from A to A'. Mudstone layers were delineated based on gamma ray data collected at each well.

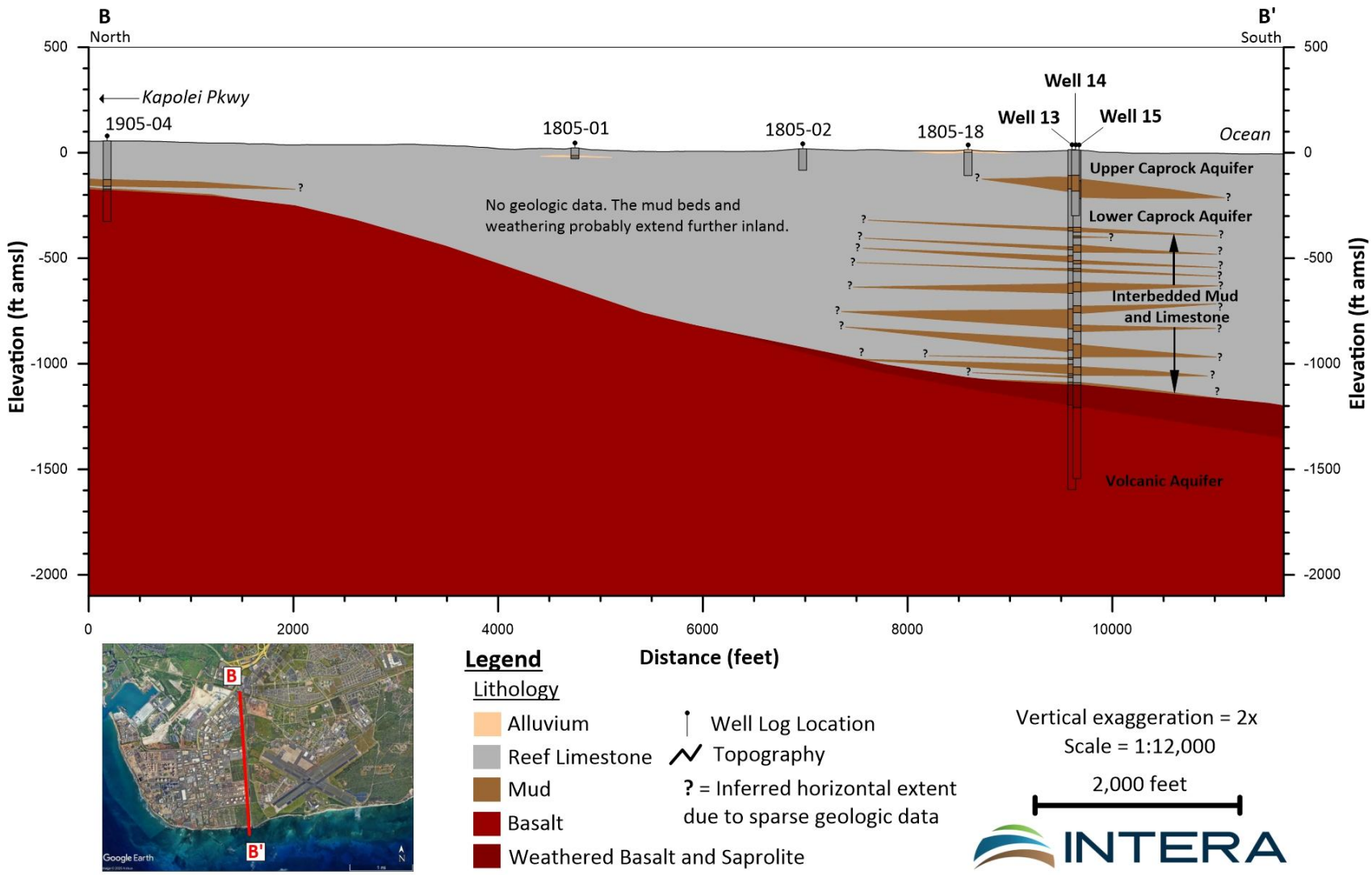


Figure 9-5. Local cross-section extending north-south from B to B'.

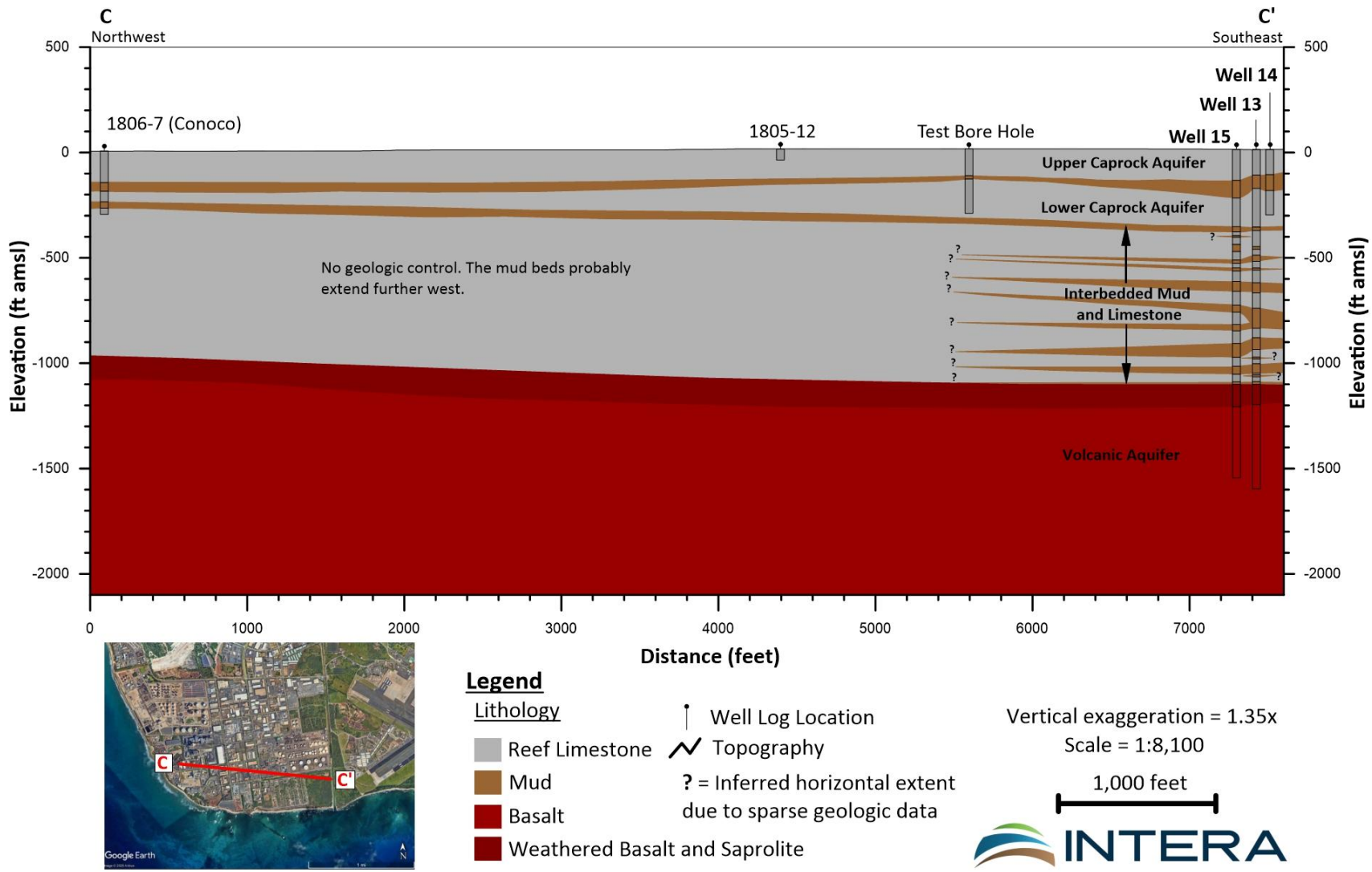


Figure 9-6. Local cross-section running northwest-southeast from C to C'.

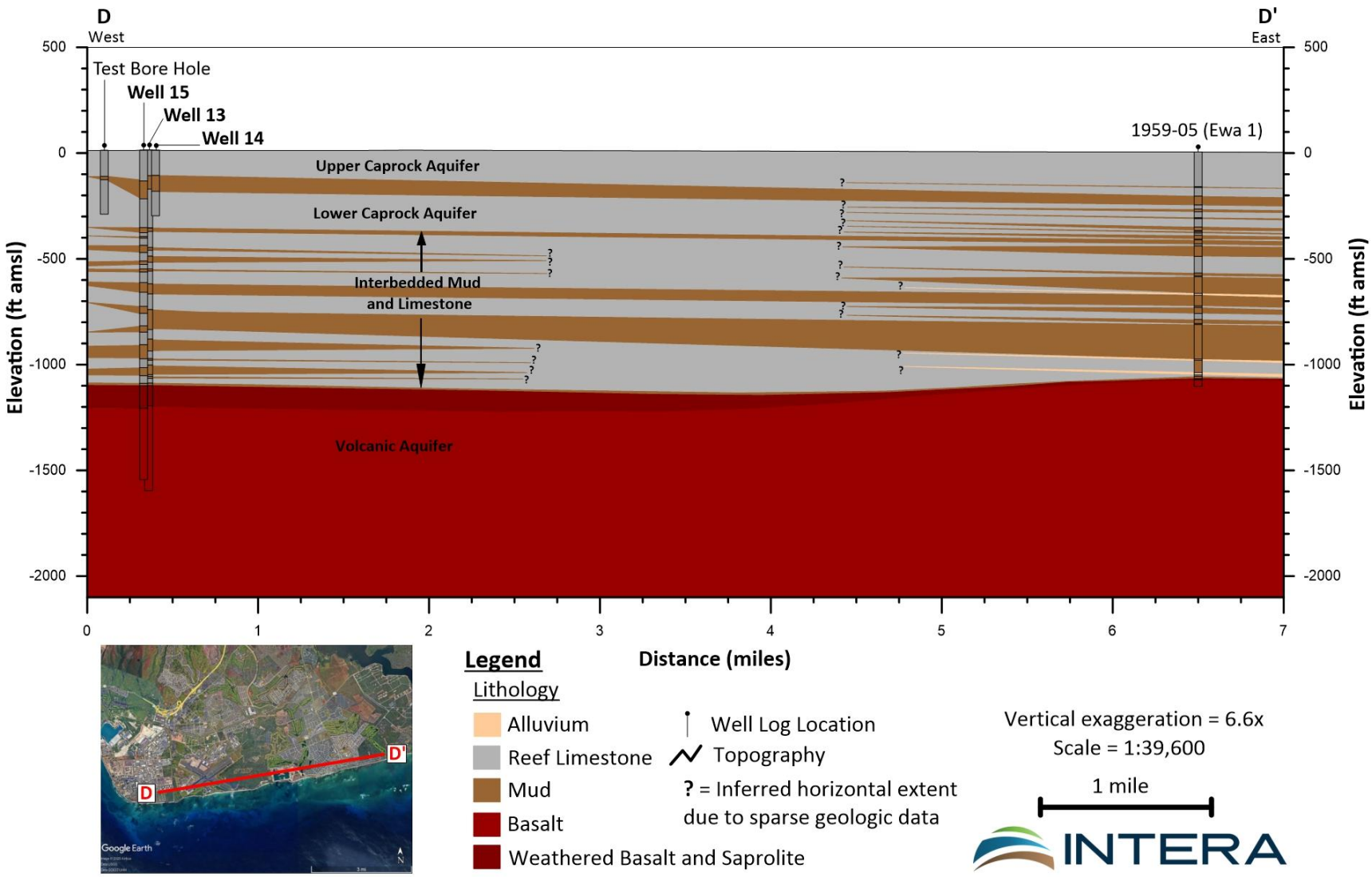


Figure 9-7. Regional cross-section running west-east from D to D'.

9.3.1 Geochemistry

Geochemical analyses were conducted on water samples from the caprock and volcanic aquifers to identify any potential interactions between HSUs. The analyses included stable isotopes and anthropogenic constituents collected under both static and pumping conditions. As previously described in Section 8.3.2, stable isotopic signatures of hydrogen and oxygen are distinct between the shallow caprock samples and Well 14 and volcanic aquifer samples. Shallow caprock samples are very similar to the isotopic signature of local precipitation, suggesting meteoric recharge. Well 14 and volcanic samples lack a clear distinction from one another and are similar to seawater isotopic signatures, suggesting recharge from seawater in these aquifers.

The concentrations of anthropogenic constituents in the shallow caprock, Well 14, and volcanic aquifers are distinctly different, as described in more detail in Section 8.3.5. The shallow caprock aquifer wells had high concentrations of PFAS and TPH compared with Well 14. The volcanic aquifer and seawater had no detections of any organic contaminants. **Figure 9-8** summarizes the stable isotope and organic results for each aquifer zone at the KSDF project site. There was no change in water chemistry while conducting pumping tests in the caprock and volcanic aquifers. Overall, the geochemical results support the conclusion that the caprock and volcanic aquifers are hydraulically distinct.

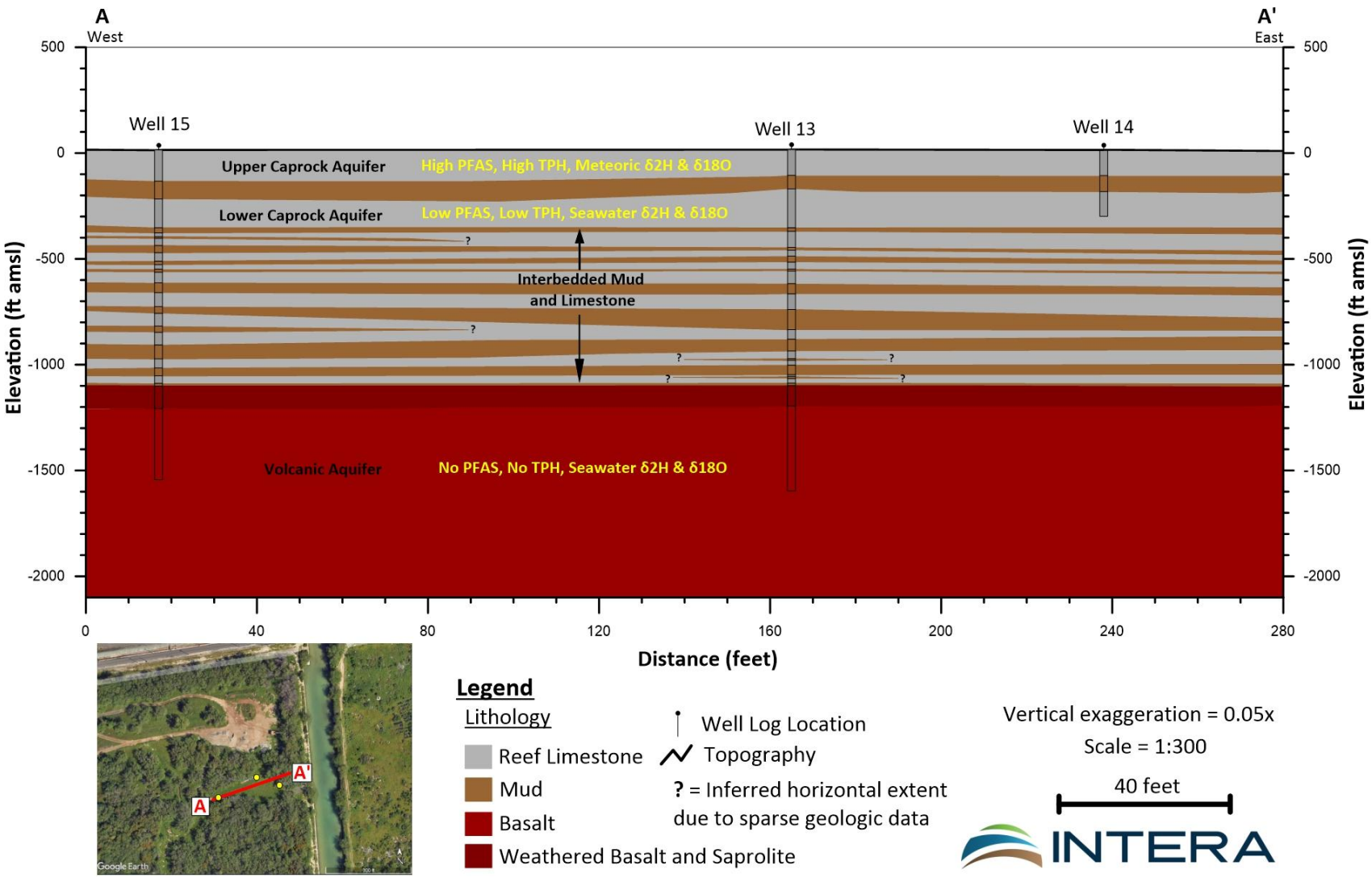


Figure 9-8. Site cross-section A-A' with geochemical results summarized for each aquifer.

9.3.2 Groundwater Flow

Results of the aquifer testing detailed in Section 7.0 indicate that no hydraulic connectivity exists between the caprock and volcanic aquifers. Pump testing of the volcanic wells (Wells 13 and 15) exhibited no measurable impact in any of the caprock wells (MW 1 and 2 and Well 14). Additionally, pumping of the caprock well had no impact on the volcanic wells. These results support the hypothesis of hydraulically separated aquifers by low-permeability layers as illustrated in **Figure 9-9**, with no groundwater flow across the interbedded mud and limestone layers.

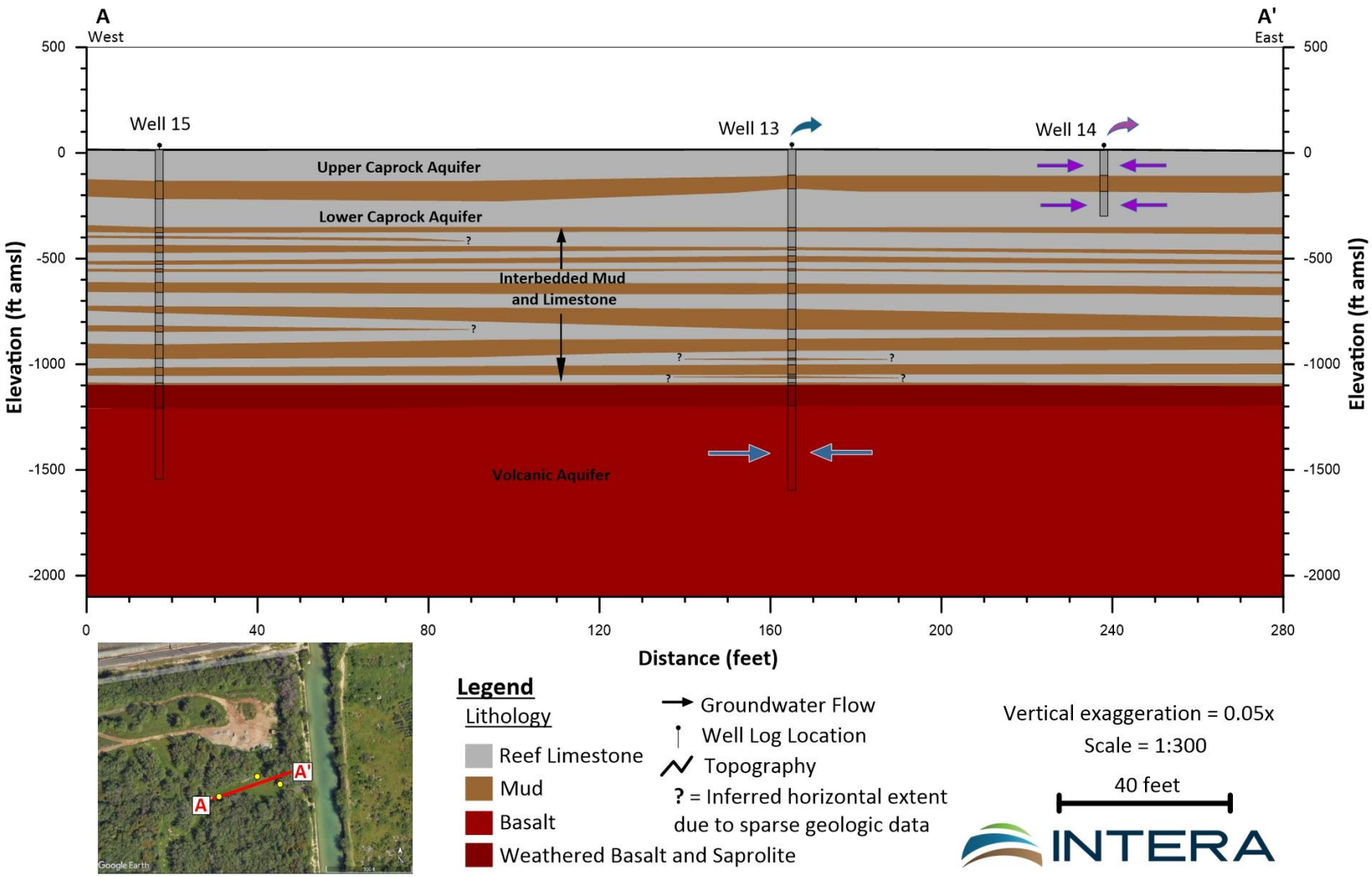


Figure 9-9. Site cross-section A-A' illustrating groundwater flow directions for pumping in Well 13 (blue arrows) and Well 14 (purple arrows).

9.3.3 Model Gaps

The KSDF geologic model layers are constructed using borehole data and defined surface contacts and extrapolated across the model boundaries based on available data. Data gaps exist in the model in areas where there is no borehole lithologic data or borehole data are relatively shallow and do not reach the basalt contact. The area east of the KSDF site and west of ‘Ewa Beach has no borehole lithologic data, and the Barber’s Point area west of the KSDF project site contains only shallow borehole data. Sparse geologic data outside of the site limits the ability to correlate interbedded mudstone and limestone layers between boreholes, and the horizontal extents of these deposits must be inferred as illustrated in the local and regional cross-sections (Figures 9-4 through 9-7). Individual boreholes are displayed in **Figure 9-10** as pink points overlying the 3D model.

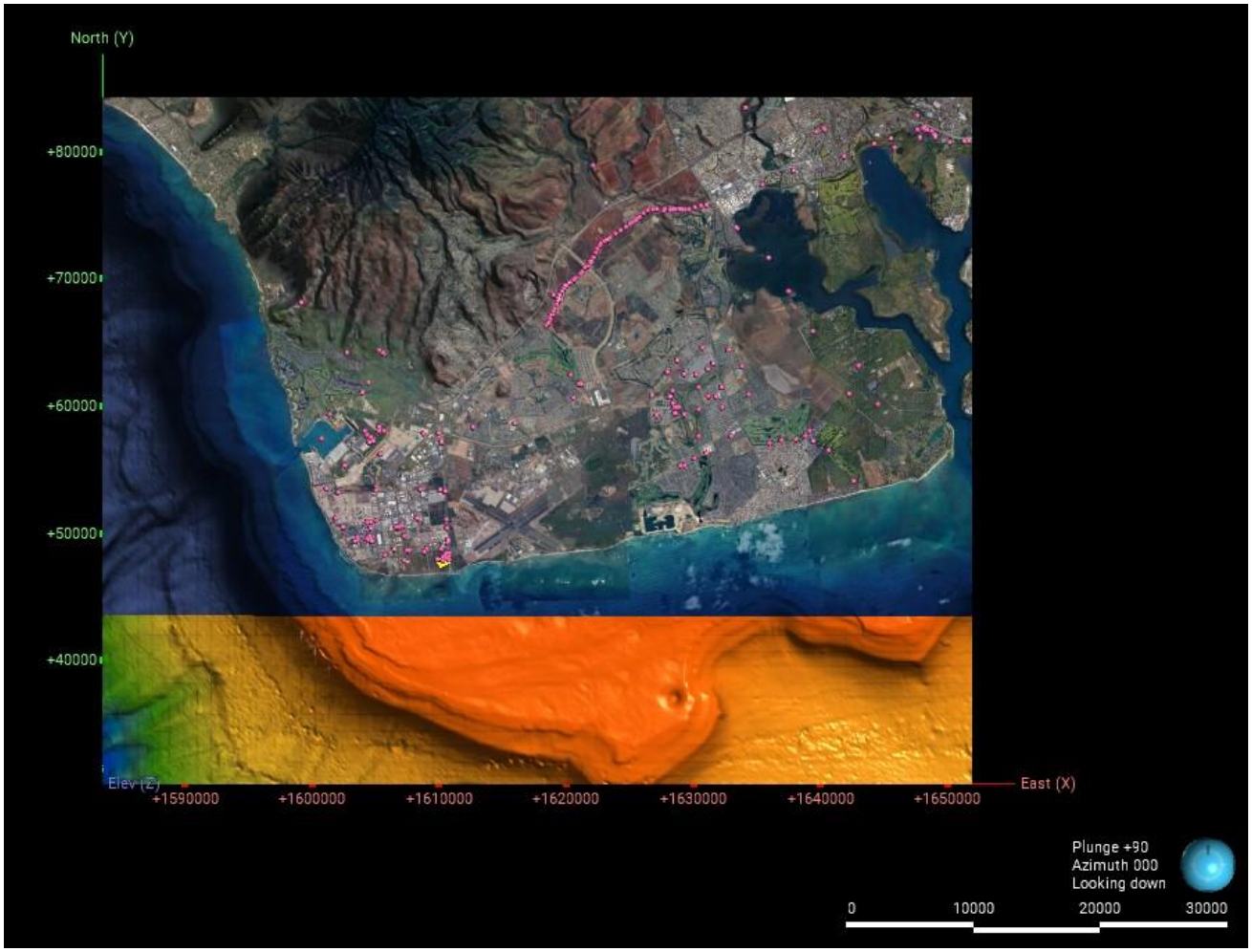


Figure 9-10. Locations of boreholes (pink) and KSDF site (yellow) on the 3D model.

10.0 Conclusions and Recommendations

10.1 Summary of Final Hypothesis

The combined results of the geophysical logging, aquifer testing, and water sampling programs support the hypothesis that low-permeability layers hydraulically separate the caprock aquifer from the underlying volcanic aquifer at the KSDF project site. These investigations provide consistent lines of evidence that define the hydrogeologic framework depicted by the CSM.

10.1.1 Geophysical Logging

Geophysical logging identified distinct high-gamma intervals at the base of, and within, the caprock that correlate with mud layers observed in lithologic cross-sections. A mud or silt layer was detected between 120 and 180 feet bgs, more interbedded mud was detected between 380 and 1,070 feet bgs, and interlayered weathered basalt (saprolite and basalt derived soil) and basalt were detected between 1,070 and 1,200 feet bgs. These intervals are interpreted as laterally continuous, low-permeability horizons that act as confining units between the caprock and volcanic aquifers. The log responses, in conjunction with borehole lithology, confirm the presence of stratigraphic features capable of restricting vertical flow.

10.1.2 Aquifer Testing

No drawdown was observed in the caprock wells during pumping of the volcanic production wells, and no water level impact in the volcanic wells was associated with pumping from the caprock well, either visually or through time-series analysis. These results support the hypothesis that the volcanic aquifer production intervals are hydraulically separated from the caprock injection interval (the lower caprock) low-permeability layers. As such, aquifer testing indicated no vertical hydraulic connectivity between the caprock and volcanic aquifers.

The response of water levels in the volcanic aquifer to seismic waves from the 2025 Kamchatka earthquake further supports the interpretation that the volcanic aquifer is confined. Overall, the aquifer testing provides consistent evidence for a low-permeability barrier separating the caprock and volcanic aquifers.

10.1.3 Water Sampling and Analysis

Water sampling and analysis results indicate that the volcanic aquifer contains groundwater originating from a seawater source with distinct chemical constituents indicating separation from the caprock aquifer. Results further indicate that pumping produced no significant changes that would indicate vertical flow. Volcanic aquifer groundwater from Well 13 and Well 15 is similar to offshore samples in total dissolved solids, major ion composition, stable isotope signatures, and most other constituents. Well 13 detected no anthropogenic contaminants tested and showed no levels of any contaminants that have both natural and anthropogenic sources to be elevated relative to seawater. Well 15 initially detected traces of constituents attributed to previous leakage of caprock aquifer water

into an incompletely sealed portion of the well prior to the April 2025 repairs. Water quality in Well 15 was the same as that in Well 13 after pumping sufficiently to purge all traces of the previous leakage. The shallow caprock wells, MW 1 and MW 2, exhibited lower total dissolved solids, a stable isotope signature consistent with meteoric recharge, relatively young recharge ages, and anthropogenic contamination by petroleum hydrocarbons and PFAS. Well 14, whose screen is in both the lower and upper caprock aquifers, reflected a seawater source based on the same factors considered for Well 13 and Well 15. Unlike the volcanic aquifer wells, however, Well 14 detected anthropogenic contamination—including a distribution of PFAS compounds and petroleum hydrocarbons similar to those seen in MW 1 and MW 2, except at lower concentrations. The fact that pumping Well 13 and Well 15 induced no contaminated caprock aquifer groundwater to enter the volcanic aquifer wells is consistent with the other lines of evidence that indicate hydraulic separation between the formations.

10.2 Future Actions

The field investigation described in this report provides consistent and robust multiple lines of evidence supporting the conclusion that the volcanic and caprock aquifers are hydraulically separated. We recommend no further investigations to demonstrate separation between the caprock and volcanic aquifers.

Well 14 penetrates both the upper and lower caprock aquifers and may be a conduit for downward flow of contaminants from the surface to the lower caprock. Well 14 should be modified or sealed. Modification could entail installing a liner open in the lower caprock in the existing casing and cementing off the upper caprock. Sealing would entail cementing the entire well from bottom to top.

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Appendices

APPENDIX A

Deviations from Final Workplan

Kalaeloa Final WP Deviations

A.1 Geophysical Logging

The Final WP proposed using the following suite of geophysical logging techniques to define better the lithology of various units within each existing well:

- Dual Induction Conductivity Logging
- Electrical Resistivity (short/normal, and long)/Self-Potential/Natural Gamma)
- Spectral Gamma
- Borehole Sonic
- Downhole Camera/Borehole Image Processing System (BIPS)

The primary limiting factor in terms of geophysical logging was the large diameter of the KSDF project site wells. The well diameters are between 17.5 to 26-inch, which is outside of the scope of functionality for specific geophysical tools utilized by RECONpetro. For example, Electrical Resistivity Compensated Density or Compensated Neutron tools have a wellbore limitation of 15-inches. Given the large diameter of the wells, the best combination of tools to obtain geophysical well data included Gamma Ray and Dual Induction.

A.2 Aquifer Testing Pump Rate

The Final WP specified that, during certain phases of aquifer testing (i.e., cycle test and constant rate test), Well 13 and Well 15 would be pumped at a rate of 3,000 to 3,500 gallons per minute (gpm), and Well 14 would be pumped at 2,000 gpm. The final rates were to be determined based upon results of the step-drawdown tests and on the capacity of available pumps.

Two test pumps were used for aquifer testing activities: (1) a model 16GE5V, 2 stage bowl shaft pump with a 4,000 gpm flow capacity with a throttle device able to reduce flow to 2,000 gpm and (2) a model 14HME5V, single stage bowl shaft pump with a 2,500 gpm capacity with the throttle device able to reduce flow to 1,000 gpm. The larger pump (4,000 gpm max capacity) was intended to be used for Wells 13 and 15. The smaller pump (i.e., 2,000 gpm max capacity) was intended for Well 14.

During aquifer testing, the larger pump was successfully installed and used in Well 15; however, Precision Drilling encountered issues during installation of the larger pump in Well 13. Upon removing the Well 13 steel housing, they discovered that the well casing diameter was too small for the larger pump. As such, the smaller pump was installed in Well 13. Note that a reduced testing pump rate in Well 13 was sufficient for the purposes of this study. The final aquifer testing pump rates are provided in Section 7.2.1, Tables 7-3 through 7-10, of the Field Investigation Report.

A.3 Water Level Recovery

The Final WP specified that—at the end of each pumping period—the pumps would be shut off, and water level recovery would be monitored for at least 5 days. Due to project schedule limitations, the recovery between each pumping period was reduced to a minimum of 24 hours. In some cases, recovery was longer than 24 hours. A 24-hour recovery period was sufficient for the purposes of this study.

A.4 Water Level Monitoring Frequency

The Final WP specified that water level response in all onsite wells, water levels in the onsite tidal monitoring station, and barometric pressure changes would be recorded on 1-minute intervals throughout the pumping and recovery stages of the test. Water level data loggers (i.e. transducers) were programmed to take measurements every 30 seconds to capture precise drawdown and recovery data. The baro logger recorded barometric pressure every 1 minute. Note that on July 30, 2025, during a routine transducer re-deployment, the transducers in Wells 14 and 15 were programmed to record water level measurements every 1 minute instead of every 30 seconds. This error was corrected when the transducers were re-programed and re-deployed on August 8, 2025. The water level monitoring frequency deviation is insignificant and was supplemented by manual water level measurements.

A.5 30-Hour Cycle Test

The Final WP specified that the cycle test on Well 13 and Well 15 would encompass a total of thirty hours, with 5-hour pump on and off time periods. The purpose of the cycle test was to evaluate tidal cycle influences on groundwater levels in the caprock and basalt aquifer. To capture rising and falling tides, the pump on and off times were adjusted, with some being shorter or longer than 5 hours. The duration of each cycle is provided in Section 7.2.1 of the Field Investigation Report.

A.6 Constant Rate Test

The Final WP specified that the constant rate test for Wells 13 and 15 would take place over the course of five days (i.e., 120 hours), while the constant rate test for Well 14 would take place over two days (i.e., 48 hours). To maximize the potential to observe any influence on the basalt aquifer, the constant rate test for Well 14 was extended to 120 hours.

A.7 Aquifer Testing Data Analysis

The Final WP specified that a numerical groundwater flow model constructed with MODFLOW 6, and based on an earlier SEAWAT model of the site, would be developed. The WP also specified that the model would incorporate all data collected during the aquifer testing and would be calibrated with uncertainty analysis using the PESTPP-IES framework.

After developing the Final WP, INTERA—in consultation with BWS—determined that the detailed modeling would be ineffective at demonstrating the lack of connection between the caprock and volcanic aquifers. The detailed modeling and uncertainty analysis was therefore removed from the plan.

Instead, INTERA developed a screening model of the site and wells with Ttim software (Bakker 2013) to test alternate conceptual models of the connection between the caprock and volcanic aquifers. The screening model was based on the site stratigraphy identified by the borehole geophysics conducted as part of the Final WP. The model was used to refine the aquifer tests and predict test results that could indicate a connection between the caprock and volcanic aquifer.

A.8 Water Sampling and Laboratory Analysis

Several minor changes to the water chemistry analysis methods were made from the Final WP per laboratory recommendations. These changes can be summarized as:

- Dissolved uranium was analyzed via method SW846 6020 in lieu of method EPA 908.0;
- 1,4-dioxane was analyzed via method 625.1 SIM in lieu of method SW 846 8011;
- Gross alpha radioactivity was analyzed via method SM7110C in lieu of method EPA 900.0;
- Nitrate as nitrogen EPA 353 in lieu of method EPA 353.2;
- Total phosphorus EPA method 365.1 in lieu of orthophosphate; and
- Dissolved silica was analyzed via Method SW 846 6010D in lieu of method EPA 370.1.

Three Quality Control/Quality Assurance samples were submitted to analysis laboratories with the intention of providing replicate, equipment blank, and matrix spike replicate analyses. No matrix spike replicate analysis was performed due to laboratory error. Instead, the matrix spike replicate sample was analyzed as a replicate sample.

A.9 Offshore Sampling

The Final WP specified three offshore ocean water samples to be collected from approximately 0 ft (i.e., ocean surface), 600 ft (correlated with well temperatures), and 1,200 ft (or to be determined based on the ocean floor bathymetry). During offshore sampling activities, three offshore ocean water samples were collected from: (1) 400 feet depth at the 5 km offshore location, (2) 5 km offshore at the surface, and (3) the ocean surface nearshore at the canal outfall. The locations of offshore ocean water samples were chosen based on the suspected recharge zone, the closest locations orthogonal to the shoreline at the well site location. The 400 feet depth associated with the offshore location was selected to correspond with source well water temperatures. The final site selection for Offshore 3 was also dictated by safety and surf conditions.

A.10 Alternative Sampling Locations

The Final WP identified several potential alternative and/or supplemental monitoring wells for the purposes of collecting water quality and water level data. Monitoring wells of particular interest for caprock aquifer analysis included the three Par Hawaii fire protection wells, Cates Grove Farm Fish & Poi LLC well, environmental monitoring wells MW 1 through MW 4, and shallow Par Hawaii monitoring wells. INTERA was unable to locate environmental monitoring wells MW 1 through MW 4, and they are assumed to have been destroyed or covered. The Par Hawaii wells were in use for fire protection and inaccessible during field investigation activities. The closest wells that were recovered and not in use at the time of the study was a pair of nested monitoring wells located at the Kalaeloa Partners Cogeneration plant. The nested wells are used by Kalaeloa Partners as monitoring wells for the injection wells on site at the cogeneration plant. During KSDF aquifer testing, these wells were used for measurement of water levels only. No sampling and analysis of water quality was performed.

APPENDIX B

Well 13/Well 15 Investigation and Repair

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DRAFT TECHNICAL MEMORANDUM

TO: Barry Usagawa, PE, Honolulu Board of Water Supply

FROM: Kevin Gooding, CPG; Pat Jurcek, P.G. Paul McAlpine; Eva Kakone; INTERA Incorporated

DATE: September 13, 2024

RE: Kalaeloa Saltwater Desalination Facility Well 15 (3-1805-015) Investigation and Repair Basis of Design

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1 Introduction

1.1 Background and Purpose

Seawater supply for the proposed desalination plant is planned to come from the two existing on-site deep basalt wells that are approximately 1,600 and 2,100 feet (ft) deep, respectively Well No. 3-1805-013 (Well 13) and Well No. 3-1805-015 (Well 15). These wells are designed to produce water from the basalt saltwater aquifer. There is also a 300-feet well installed in the Caprock (UIC Well Permits UO-2179; Well No. 3-1805-014). **Figure 1** is a site map showing the locations of the Basalt wells (Well 13 and Well 15) and the Caprock well (Well 14).

An investigation of Well 15 was recommended to the BWS based on water level data collected and reviewed by INTERA between December 2023 and January 2024 which indicated that the casing and/or annular seal may be leaking and that the well is in communication with the caprock aquifer. As shown in **Figure 2**, water levels in Well 15 track the water levels in the caprock well and differ from those in the other basalt well No. 3-1805-013 (Well 13). Furthermore, Well 15 shows a response to tidal influence that is comparable to the caprock well (**Figure 3**) which suggests that Well 15 is hydraulically connected to the upper caprock aquifer. It is suspected that one or more breaches in the PVC casing of Well 15 is allowing groundwater from the upper caprock to leak into the basalt well.

Figure 4 shows a schematic design diagram of Well 15. The information included in **Figure 4** will be used and referenced throughout this report.

There are multiple potential failure modes that could be the cause of the leaking into Well 15 and must be investigated and resolved. These potential failure modes include:

- The casing may be leaking at the grout pipe nipple installed in the concentric reducer, creating a path for caprock water to enter the casing.
- The casing may be leaking at casing pipe joints. Joint failure creates a path for caprock water to enter the casing.

- The well seal grout may not be continuous. Discontinuous grout allows caprock and basalt aquifer water to travel up or down the annular space.

This technical memorandum summarizes currently available information and provides recommendations and a basis for design to repair Well 15.

1.2 Limitations

The following limitations apply to this technical memorandum:

- As-built information is limited and contradictory; as such, assumption regarding the actual as-built conditions were made.
- This is a basis-of-design report for decision making purposes. The complete design will be prepared later.

Figure 1. Site map showing locations of the (Well 13 and Well 15) and the Caprock well (Well 14)

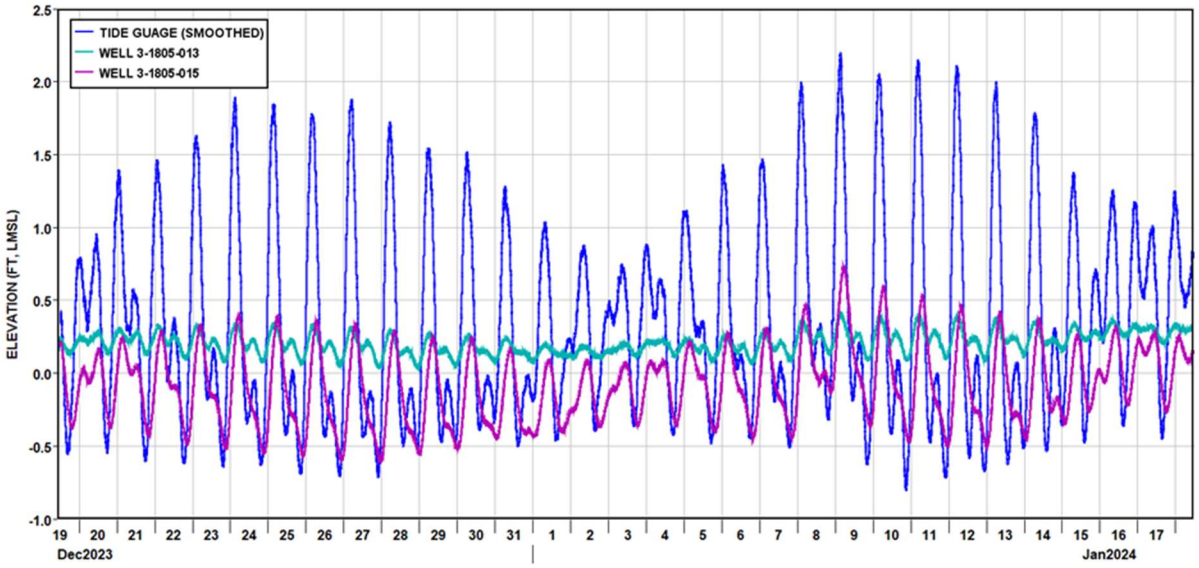


Figure 2. Water levels in the deep aquifer along with the tidal levels

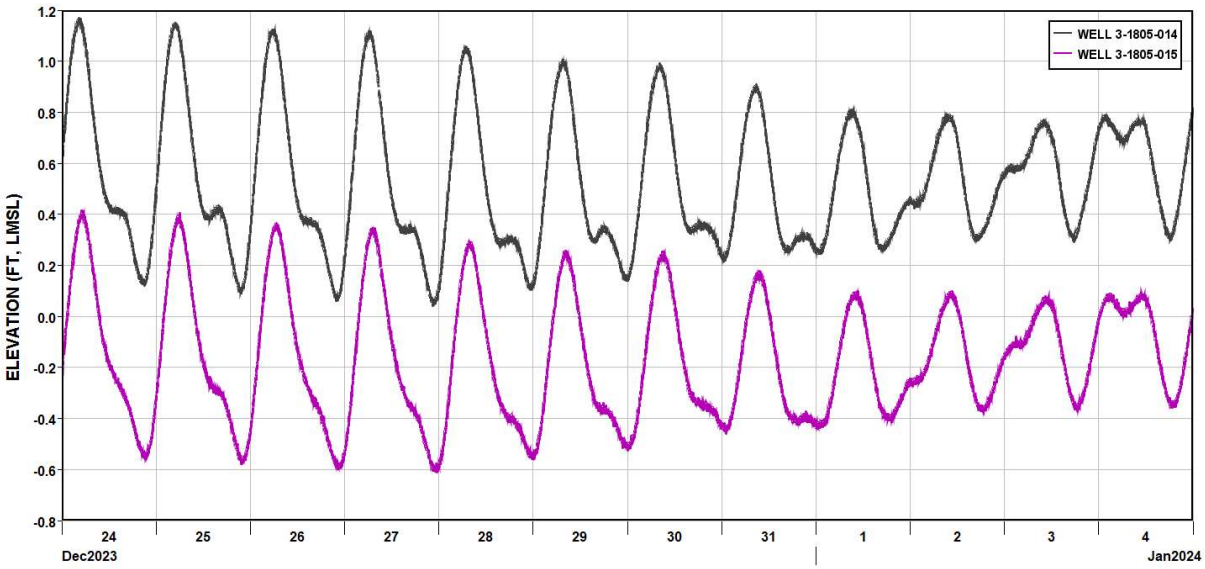


Figure 3. Comparison of tidal responses in Well 14 (shallow Caprock) and Well 15 (deep Basalt)

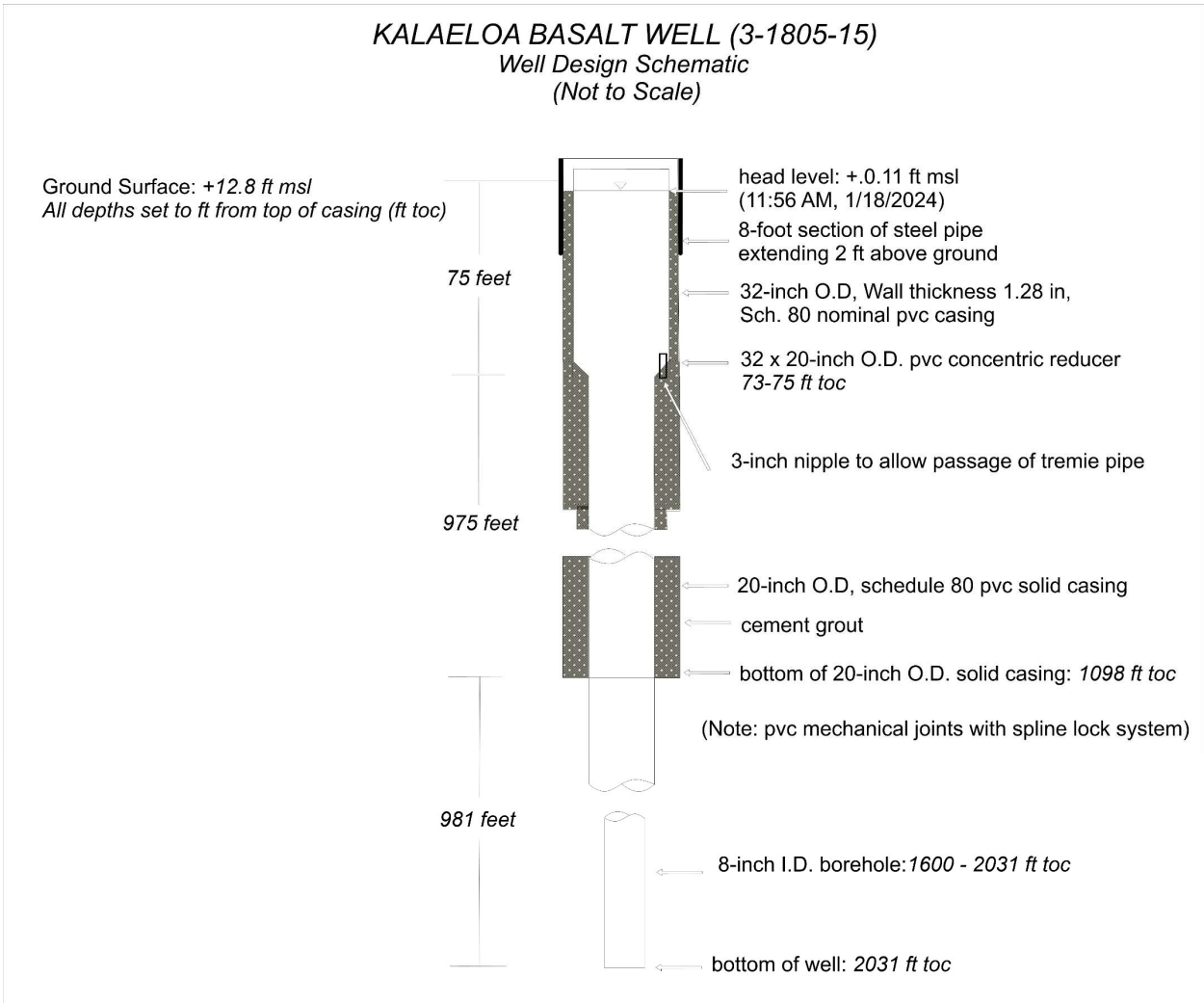


Figure 4. Schematic of Well 15 design. Note: Information included in this schematic was obtained from the Well 15 Well Construction Report (Appendix A) and field observations.

2 Review of Available Information

2.1 Well Construction Information

A copy of the well construction report for Well 15 is included in Appendix A. Well 15 was drilled by Water Resources International Inc. The drilling method is unknown but was probably conventional rotary or reverse rotary. Construction and testing of Well 15 was completed in November of 2004. The well construction report indicates that the nominal borehole diameter is approximately 38-inches to a depth of approximately 75 feet below ground surface (bgs), 26-inches to depth of 1,050 ft bgs, and decreases to 17-inches to a depth of 1,600 ft bgs. Later annotations to the well construction report (Appendix A) indicates that an 8-inch nominal diameter borehole was drilled from approximately 1,600 ft bgs to 2,031 ft bgs, indicating a discrepancy of the known depth of the well.

According to the Well 15 well construction report (Appendix A), an 8-foot-long section of steel conductor casing was installed to stabilize the upper borehole. A reported 30-inch nominal PVC casing (wall thickness 1.280 inches) was set to a depth of approximately 75 ft bgs. Note that field measurements collected by INTERA on 9/12/24 measured casing at 32.25-inch outer diameter (O.D.) and 30-inch inner diameter (I.D.). According to the well construction report, the PVC casing diameter was then decreased to 20-inch O.D. diameter using a PVC concentric reducer and 20-inch O.D. Schedule 80 PVC casing and reportedly set to a depth of approximately 1,050 ft bgs. Note that the actual casing depth, as observed in 2024 videos, was approximately 1095 feet bgs. The construction report states that a double spline mechanical coupling system was used, but it is not clear that it was used to connect every PVC casing joint. The entire PVC casing string was grouted in the annular space through a 3-inch nipple, which was installed in the concentric reducer at approximately 77 ft bgs.

2.2 Feb 2024 Video Inspection

On February 21, 2024, a down hole video survey was conducted in Well 15 by Hawaii Drilling and Pump Service LLC (HDPS). The video survey was conducted as part of a preliminary inspection of Well 15 for the ongoing desalinization plan project. The February 2024 down hole video was analyzed by INTERA. The video log is summarized in Appendix B.

The video log notes that the base of the 20-inch O.D. diameter casing is approximately 1,095 ft bgs, which is different than the 1,050 ft bgs depth reported on the Well 15 well construction report (Appendix A). The video log also indicates that the current total depth (TD) of the borehole is 1,503 ft bgs, which compared to the Well 15 construction report suggests that there is a minimum of 97 feet of fill currently in the well and possibly more fill if the borehole extends to a depth of 2,031 ft bgs, rather than 1,600 ft bgs (Appendix A).

2.3 May 2024 Video Inspection

On May 7, 2024, a detailed down hole video survey was conducted on Well 15 by HDPS with INTERA personnel onsite to oversee the video survey. The objective of the down hole video survey was to further inspect the entire PVC well casing, including each joint in order to look for possible indications of leaks or areas where the casing integrity has been compromised.

A detailed log prepared by INTERA onsite personnel and screenshots from the down hole video survey are provided in Appendix C. A summary of the down hole video survey is provided below:

- No obvious indications of holes in the PVC casing were readily visible and no indications of incoming flow, such as air bubbles, cascading water, or particle movement were detected.
- On inspection, it appears that the exposed 3-inch nipple at the concentric reducer was not sealed after the well was grouted. It is possible that water is entering the well at this location.
- Several joints show either mineral precipitation or grout leakage. If the visible material is grout, this would indicate that the PVC joint coupling did not initially provide an effective seal.
- Biological growth/biofouling was detected at several joints. The presence of bacteria at these joints is not understood, but bacterial growth at these locations may be due to inflow of water with slightly different geochemistry as compared to the basalt aquifer, such as inflow through leaks from the caprock.

- The inside surface of the casing between the joints does not show indications of biofouling, precipitate or grout leakage. These phenomena occur only at the joints.
- Overall, the appearance of the PVC casing joints was not uniform. O-rings or gaskets were present at some of the joints whereas other joints indicated a gap was present between the upper and lower sections of PVC casing. As previously noted, it is not known if the double spline mechanical coupling system noted in the well completion report was used to connect every PVC casing joint. If consistent couplings were used for each joint, then the observed discrepancies may suggest that some of the PVC joints were not properly installed.

Figure 5 provides an example screenshot of a joint with potential mineral precipitation, grout leakage, biological growth/biofouling, or O-ring/gasket bulges, while **Figure 6** provides an example of a normal joint.

Figure 5. Screenshot of potential compromised joint at 435.8 ft bgs, showing potential mineral precipitation, grout leakage, biological growth/biofouling, and O-ring/gasket bulges

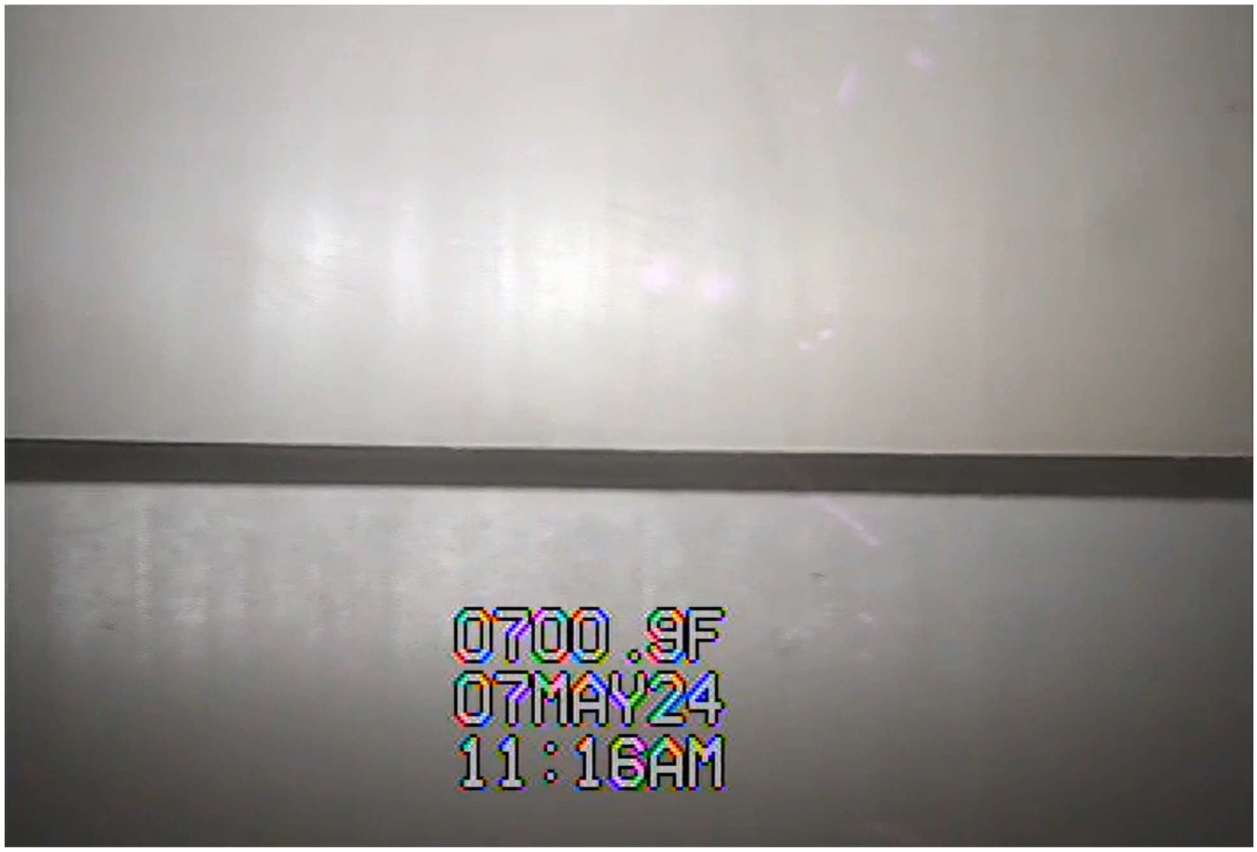


Figure 6. Screenshot of normal joint at 700.9 ft bgs

As previously discussed, no detailed information is available in regard to the construction of Well 15 or the type and the manufacturer of the PVC joint coupling. The Well 15 construction report (Appendix A) and **Figure 4** indicate that a double spline locking mechanism was used.

3 Borehole Geophysical Logging Program

Colog Inc., (Golden, CO) was contracted by INTERA to perform a borehole geophysical logging program to evaluate the casing and joints and annular space integrity of both Wells 13 and 15. The borehole geophysical logging scope of work was performed by Colog between June 25th and 30th, 2024. A description of the borehole logging tools, methodologies, description of geophysical method and results are summarized in their comprehensive report (INTERA, 2024). A brief description of the geophysical technique of each borehole tool used on Well 15 and the logging analysis results are provided below.

Full Waveform Sonic/Cement Casing Bond Log: This logging tool uses sound wave propagation to measure the coupling between casing and cement in a fluid filled borehole (Sterritt, R.J., 2007). The CBL will measure the response in the full circumference of the borehole. The CBL tool can be used in PVC cased wells, as the velocity of the PVC casing is slower than cement grout. A faster signal arrival would indicate that presence of grout. A faster signal arrival would indicate the presence of grout.

Acoustic Televiewer: The acoustic televiewer tool produces high-resolution images of the casing and borehole wall through the use of a rotating high frequency transducer which produces acoustic amplitude and time images (Sterritt, R.J., 2007). The resulting images can be displayed in 0 to 360 degrees on a horizontal axis. The acoustic televiewer can provide detailed images of the casing (possibly detecting cracks, pits, etc.) and borehole wall and can also detect if steel (i.e. centralizers, bolts, etc.) is present in the annular space.

Borehole EM Dynamic Flowmeter: This tool uses electromagnetic (EM) induction to measure fluid flow rates, fluid conductivity and temperature (Appendix C). The lower flow rate resolution of this tool is 0.01 gpm, and therefore under static conditions small leaks within the PVC casing can possibly be detected.

Gyro Inclinometer: This tool essentially uses a magnetometer, accelerometer and a gyro to continuously measure the deviation of the borehole (Sterritt, R.J., 2007). The results of this log will determine the orientation and inclination of the borehole, which will be useful information to further assess annular space grout seal and provide useful information if installing new casing or relining existing casing is needed.

- The gyro deviation survey indicates a final well/borehole deviation with an offset of 2.16 feet north and 3.03 feet east, which is relatively close to vertical. Well/borehole deviation did not exceed one degree.
- Analysis of the full wave form sonic log plot indicated that casing joints were present approximately every 19 feet. Wave form response is relatively consistent for the following intervals: 117 to 624 feet bg, 678 to 739 feet bg, 777 to 822 feet bg, 870 to 922 feet bg, and 1064 to 1093 feet bg which suggests uniform annular space material. Waveform variations were detected from approximately 624 to 678 feet bg, which suggests inconsistency in the annular space material.
- Acoustic televiewer images were created from both the inner surface of the PVC casing and the annular space grout. Various anomalies were detected which appear to be related to the PVC bell-joint coupling, the PVC manufacturing process or slight changes in grout composition. However, the acoustic televiewer images did not indicate any cracks, holes or breeches in the PVC casing.

- The acoustic televiewer and full waveform sonic data were combined to create plots to further resolve the integrity of the annular space. The combined log plots indicate the presence of long stretches of high-quality grout integrity from 115 to 626 feet bg, 687 to 753 feet bg, 776 to 824 feet bg, 869 to 925 feet bg, 987 to 1,025 feet bg, and 1,064 to 1,093 feet bg. The combined data plots did not indicate any significant vertical channels or void in the annular space that would provide a conduit for vertical groundwater flow from the Caprock into the lower basalt aquifer. Overall, the log plot results indicate that annular space grout seal is providing hydraulic separation from the Caprock and basalt aquifer.
- EM flow meter log could not be conducted in the upper 30-inch PVC casing due to difficulty with the flow diverts getting a good seal. As such, the EM flow meter logging survey was concentrated in the 20-inch O.D. PVC casing and upper open borehole. The EM flow meter log indicated that on average approximately 2.81 gallons per minute (gpm) of flow was measured beginning at the PVC concentric reducing area (Figure 4) and was consistent through the entire PVC casing and exiting below the 20-inch O.D. PVC casing into the open borehole. Based on the EM flow meter log results, Colog inferred that the flow is entering Well 15 at the PVC concentric reducer area.

Overall, the results of the Colog Inc., geophysical borehole logging program conducted on Well 15 indicated that the annular space grout seal was relatively intact and there were no indications of vertical groundwater flow migration pathways from the overlying caprock into the lower basalt aquifer. No indication of holes or breeches were detected in the PVC casing. The EM flowmeter results indicate that flow (average rate 2.81 gpm) was detected in the area of the PVC concentric reducer. Flow was consistent through the entire PVC casing suggesting that the integrity of the PVC casing joints was not compromised.

4 Well 15 Repair Basis of Design

4.1 Objective

Based on the results of the Well 15 borehole geophysical logging program, leakage from the Caprock formation into Well 15 is most likely occurring in the area of the PVC concentric reducer and the pipe nipple that was originally used for grouting (refer to Figure 4). The detailed borehole video logs recently conducted on Well 15 (Sections 2.2 and 2.3) do not indicate the presence of grout or cement sealing the pipe nipple which further suggests that leakage is occurring in this area. As such, the repair of Well 15 is proposed and will be focused on the upper 100 ft of casing with the overall objective of repairing the leak and minimizing the potential for significant reduction in well capacity.

4.2 Design Criteria

The proposed Well 15 repair design must comply with the Commission on Water Resource Management (CWRM) minimum standards as described in the Hawaiʻi Well Construction and Pump Installation Standards (HWCPIS). HWCPIS are minimum standards for well construction. In addition, the well must conform to the Hawaiʻi Water System Standards. American Water Works Association (AWWA) Standards for Water Wells are also applied because they are more up to date than either the HWCPIS or Water System Standards.

1. CWRM, 2004. Hawaiʻi Well Construction and Pump Installation Standards. Commission on Water Resource Management. February 2004. Hawaiʻi Department of Land and Natural Resources.
2. State of Hawaiʻi. 2002. Hawaiʻi Water System Standards, Hawaiʻi Department of Water Supply, Honolulu BWS, Kauai Department of Water and Maui Department of Water Supply.
3. AWWA. 2020. American Water Works Association – Standard for Water Wells (AWWA A100-20).

4.3 Well Repair Design

As described above, the purpose of Well 15 repair is to seal the leak at the reducer. In order to seal off the reducer leak, a partial liner is recommended to be installed and pressure grouted from top of casing (TOC) to 100 ft bgs. The primary considerations for the well repair design are well depth, well liner construction and composition, sanitary seal, and annular thickness. Well repair design and material considerations relative to standard design criteria are discussed below.

4.3.1 Well Total Depth

INTERA's review of the May 2024 downhole TV log indicated that the depth of Well 15 casing is 1,500 ft bgs. The well completion report for Well 15 stated a total depth of 1,600 ft bgs. The final constructed depth is unknown but based on the available evidence it appears there is approximately 100 ft of fill in the bottom of the hole. As such, prior to conducting repairs or other casing mitigation efforts, fill removal is required.

The most cost-effective approach to removing the fill will involve having a drilling or pump contractor use a bailer with either a cable tool drill rig or pump rig to remove the fill. After the fill is removed, a downhole TV survey should be conducted to verify the condition of the lower borehole. Note that design standards related to total well depth do not apply to the Well 15 repair recommendations.

4.3.2 Well Repair Liner

Based on field measurements and well construction reports, Well 15 is constructed of 32.25-inch O.D. / 30-inch I.D. schedule 80 PVC casing from top of casing (TOC) to 73 ft bgs with a 2-foot long PVC concentric reducer from 73 ft to 75 ft bgs which reduces the casing size from 30-inch ID to 18-inch ID.

A partial liner is recommended to be installed and grouted from TOC to 100 ft bgs. The partial liner will essentially mimic the existing PVC casing but will be smaller diameter which will allow for a relatively large pump to be set above the concentric reducer area to provide the required water production capacity. The partial liner will be constructed as follows: A 24-inch O.D. casing liner from TOC to 73 ft bgs, a 2-foot 24-inch x 14-inch O.D. reducer liner from 73 to 75 ft bgs, and a 14-inch O.D. casing liner extending from 75 ft to 100 ft bgs.

INTERA recommends using 2507 super duplex stainless steel for the partial liner due to its corrosion resistance in salt water and high yield strength (80,000 psi) with 0.375-inch wall thickness. The high yield strength of the material would allow for smaller wall thickness but 0.25-inch wall thickness is not available in small orders. HWCPIS and WSS recommend 0.500-inch wall thickness for 24-inch casing but this is for mild steel which has a lower yield strength. AWWA recommends 5/16-inch or 0.313-inch. The wall thickness of the super duplex stainless steel casing does not comply with HWCPIS or WSS in the 24-inch casing but does comply with the more modern AWWA standards (2020). Blank casing material and thickness design criteria are summarized below in **Table 1**.

Table 1. Blank Casing design relative to design criteria.

Blank (solid) Well Casing	
Standard	**Discussion**
HWCPIS	Allows mild steel, stainless and plastic casing.. Specifies that the minimum wall thickness for 14-inch steel public water supply well casing shall be 0.375 inches and the minimum wall thickness for steel 24-inch casing shall be 0.500 inches.
AWWA A100-20	Minimum casing wall thickness for 200 feet of 14-inch steel casing is 1/4 inch. Minimum casing wall thickness for 200 feet of 24-inch steel casing is 5/16 inch.
Water System Standards (WSS)	Wall thickness of 14-inch casing shall be 0.375 inches. Wall thickness of 24-inch steel casing shall be 0.500 inches.

4.3.3 Sanitary Seal (grout)

The annular sanitary seal will consist of neat cement with the additive Five Star Cementitious Underwater High-Strength Group additive or equivalent. Due to the high chloride and total dissolved solid (TDS) concentrations of salt water, a specialized grout mixture must be used in order to provide an effective seal in the annular space. The Five Star grout additive is a specialized grout mixture that increases strength and hydration in a saltwater environment. This recommendation complies with the annular seal design criteria summarized below in **Table 2**. We recommend sealing the entire annular space from 0 to 100 ft bgs.

Table 2. Sanitary seal design relative to design criteria.

Sanitary Seal Material	
Standard	**Discussion**
HWCPIS	"Grouting materials acceptable for use to permanently seal wells and test borings are neat cement, sand-cement slurry, concrete, cement bentonite or bentonite pellets."
AWWA A100-20	Allows neat cement and other grouting materials.
Water System Standards	Grout shall consist of Portland cement and not more than six gallons of mixing water per cubic foot of cement. At the approval of the Manager, the alternate material for grout consisting of one part of Portland cement, one part of medium-grained clean sand and not more than six gallons of mixing water per cubic foot of cement may be used.

Table 3 shows the criteria for grout length. The proposed design is to grout the entire length of the liner and this complies with the standards.

Table 3. Sanitary seal length relative to design criteria

Depth of Annular Sanitary Seal	
Standard	**Discussion**
HWCPIS	"To prevent surface contamination, the annular space of all cased non-artesian wells must be sealed with grout from the ground surface to a minimum depth of 500 ft or 70% of the vertical distance between the ground surface and the top of the aquifer selected for exploration, long-term monitoring, or development, whichever depth is less." 70% of the vertical depth from ground surface to top of aquifer is 100 ft X .7 = 70 ft. Therefore, sanitary seal 100 ft bgs satisfies this criterion.
AWWA A100-20	Requires at least 50 ft of annular seal unless otherwise required by state or local agencies.
Water System Standards	Silent

4.3.4 Annular Thickness

The proposed design allows for an annular thickness between 2 to 3 inches thick. Specifically, from 0 to 73 ft bgs, the well will have an annular spacing of 3 inches. From 73 to 75 ft bgs, at the location of the reducer, the annular space will be between 2 to 3 inches. From 75 to 100 ft bgs, the annular space will be 2 inches. This recommendation complies with the annular space design criteria summarized below in Table 3 because the proposed design entails grouting under pressure.

Table 3. Annular space design relative to design criteria.

Annular Space	
Standard	**Discussion**
HWCPIS	"The annular space of wells to be grouted must be a minimum of 1 ½ inches all around the maximum dimension of the casing if the grout is placed by positive displacement. If positive displacement is not used the minimum annular space is two inches for all wells except public water supply wells. Public water supply wells are required to have a three-inch annulus if the positive displacement technique is not used."
AWWA A100-20	"The annular space around the conductor and well casing, from the surface to the designated depth, shall be grouted and shall not be less than 3 in. (77 mm) in radial thickness or 6 in. (152 mm) in net diametrical difference. This may be reduced to 1 ½ in. (19 mm) in radial thickness or 3 in. (77 mm) in net diametrical difference if the pressure grouting from the bottom upward is performed using cement tubing or the Halliburton method."
Water System Standards	Annular space of not less than 1 ½ inches.

4.3.5 Packers For Pressure Grouting Liner

Packers will need to be installed on portions of the lower 14-inch duplex steel liner prior to installation to provide an effective seal for pressure grouting the annular space. Standard K-Packers (which are constructed with rigid rubber material) could be used but they may not provide an effective seal to the PVC casing which could be slippery. We recommend that swellable packers be used to provide an effective lower seal. The swellable packers will slowly expand when they are in contact with either fresh water or sea water, and therefore would be more effective at providing an effective seal as compared to standard K-packers. The annular space should either be continually flooded with fresh water to accelerate the expansion of the swellable packers or the existing seawater could be used to expand the packer at a slower rate. Approximate cure time using fresh water is approximately 5 to 6 days, whereas salt water will swell the packers in approximately 15 to 17 days. If K-packers are used, swell time is not needed. Note that HWCPIS, AWWA A100-20 and Water System Standards have no design criteria for packers.

4.4 Proposed Design

Table 4 below summarizes the well repair design and **Figure 7** below shows a conceptual well repair diagram for Well 15. Material Type product specifications are included in Appendix D.

Table 4. Well 15 Repair Design Summary

Interval (ft bgs)	Outer Casing Diameter (in.)	Liner Diameter (in.)	Liner Wall Thickness (in.)	Annulus (in.)	Material Type
+0 - 73	30 I.D.	24 O.D.	0.375	-	2507 super duplex stainless steel
0 - 73	Annulus	-	-	3	Neat Cement Grout (5-Star Cementitious Underwater High-Strength Additive or equivalent)
73 - 75	30 to 18 I.D.	14 O.D.	0.375	-	24-inch x 14-inch O.D. Reducer (2507 super duplex stainless steel)
73 - 75	Annulus	-	-	2-3	Neat Cement Grout (5-Star Cementitious Underwater High-Strength Additive or equivalent)
75 - 100	18 I.D.	14 O.D.	0.375	-	2507 super duplex stainless steel
75 - 100	Annulus	-	-	2	Neat Cement Grout (5-Star Cementitious Underwater High-Strength Additive or equivalent)

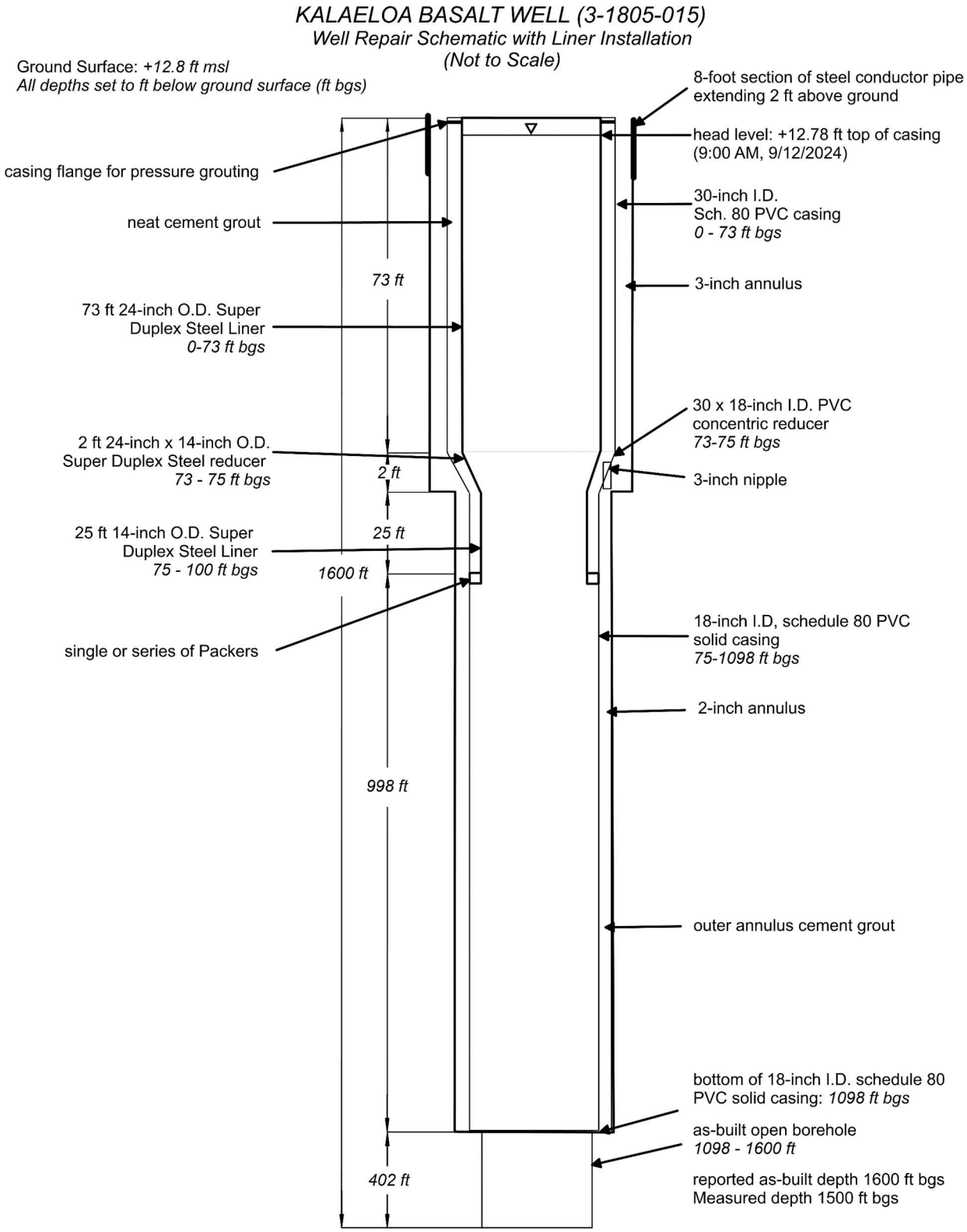


Figure 7. Well 15 Repair Diagram.

4.5 Installation and Construction Factors

A brief summary of critical factors associated with the installation and construction of the proposed liner and packers are provided below:

- Purchase the entire 24 inch and 14-inch 2507 duplex steel liner from a supplier.
- Ship portions of the 14-inch duplex steel pipe liner to Tam International (Houston, TX) for installation of swellable packers or to Industrial Rubber and Supply (Conroe, TX) for installation of series of K-packers. The swellable or K-packers are needed to provide a lower grout seal barrier for the installation of seawater compatible grout/cement during pressure grouting of PVC/duplex steel annular space. After installation of packers, 14 inch duplex steel liner will be shipped to Hawaii.
- Installation of 2507 duplex stainless steel liner will be set in Well 15 with either a drill rig or pump rig capable of handling the weight of the liner.
- During installation, 2507 duplex stainless steel liner sections will be welded by an experienced welder certified to weld high grade stainless steel.
- During installation of duplex liner, a combination of grout tremie pipe and high pressure firehose will also be set in Well 15 above the highest packer installed on the lower 14-inch duplex steel liner.
- At the wellhead, install a combination flange/blind flange with tremie passage port on top of the existing PVC casing and 24-inch duplex steel liner. The combination flange/blind flange will allow the annular space to be pressurized during grouting.
- Grout annular space between duplex steel and the existing PVC casing using salt water compatible grout. Use sufficient pressure to achieve an effective grout seal. A down hole video camera could be used to make sure that the installed packers provide an effective seal during grouting. A minimum of 72 hours should be used to cure the grouted annular space prior to setting test pump in Well 15
- In order to determine if the proposed repair has effectively mitigated the leak in Well 15, we recommend that the water level study (that was previously conducted from December 2023to January 2024) be repeated. Water levels (measured and recorded using down-hole pressure transducers) in Wells 13, 14, 15, MW1, MW2 and the tidal gauge should be monitored under static non-pumping conditions for a minimum of one week. All recorded water level data will be processed to determine if the water level response of Well 15 is consistent with nearby Well 13 (indicating that the leak in Well 15 has been repaired).

4.6 Well 15 Repair Budgetary Cost Estimate

INTERA contacted various vendors to provide detailed technical data, costs and the overall availability and lead times for the materials needed to repair Well 15. This information is summarized in Appendix E. Three vendors were contacted to provide pricing and availability of the 2507 super duplex stainless steel. In order to provide conservative budgetary cost estimates, we used the highest duplex steel cost estimate. Vendors for the other needed associated materials (packers and casing flanges) are also included in Appendix E.

We have also provided estimated budgetary contractor-related costs for removing the existing fill and for installing and grouting the duplex steel liner and for conducting a water level study to verify that the Well 15 leak has been successfully mitigated. In addition, costs for INTERA support services for the various phases for the Well 15 repair project (including preparation of technical specifications, field oversight, and project management) were also prepared. **Table 5** summarizes the budgetary cost estimates associated with the repair of Well 15.

Table 5. Well 15 Repair Cost Estimates

Scope of Work	Total Material Costs	Estimated Contractor Costs (labor, mob-demob, shipping/mark up)	Estimated INTERA Costs
1.0 Remove Fill From Well 15	N/A	$112,000	$15,000
2.0 Well 15 Repair			
2A. Development of Technical Specifications	N/A	N/A	$23,000
2B. 2507 Duplex Steel Casing	$130,000	$30,000	N/A
2C. Associated Materials (Packers, Casing Flanges, Tremie Pipe	$53,000	$8,000	N/A
2D. Installation and Grouting of Duplex Steel Liner and Grouting	N/A	$155,000	$55,000
2E. Well 15 Repair Verification	N/A	N/A	$30,000
Estimated Total Costs	$183,000	193,000	$85,000
TOTAL	$461,000		

5.0 References

AWWA. 2020. “American Water Works Association ANSI/AWWA A100-20 Standards for Water Wells”, Denver, CO.

Commission on Water Resource Management (CWRM), 2004. Hawaiʻi Well Construction and Pump Installation Standards. Hawaiʻi Department of Land and Natural Resources. February.

Commission on Water Resource Management (CWRM), 2002. Well Completion Report, State Well No. 1805-15. Kalaeloa Basalt Well.

INTERA Inc., 2024. Kalaeloa Well Completion Evaluation, letter report prepared by Colog, Inc., and submitted to INTERA, Inc., dated 7-26-24, 284 p.

State of Hawaiʻi. 2002. “Hawaiʻi Water System Standards, Hawaiʻi Department of Water Supply, Honolulu Board of Water Supply, Kauai Department of Water and Maui Department of Water Supply”.

Sterrett, R., J., 2007: Groundwater and Wells, 3rd Edition, Johnson Screens, St. Paul, MN., 812 p

Appendix A

Well 15 Well Construction Report

State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL COMPLETION REPORT - PART I
Wel. Construction

For Official Use Only:
RECEIVED
05 JAN 25 P2:16
COMMISSION ON WATER RESOURCE MANAGEMENT

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at **587-0225**. For updates to this form or additional information, please visit our website at http://www.hawaii.gov/dlnr/cwrm/

1. State Well No.: 1805- 15 Well Name: Kalaeloa Basalt Well Island: Oahu
2. Address: Eastern End of Olai Street Tax Map Key: 9-1-031:028
3. Drilling Company: Water Resources International, Inc.
4. Drilling method used during contruction: ☑ Rotary ☐ Percussion ☐ Other (describe)
5. Date Well Construction (drilled,cased,grouted) completed: 11/30/04 (month/day/year) **Attach Driller's Log (*7/26/99 DL Form*)**

   In addition to the driller's log, if a geologic log was prepared, please submit with this form.
6. Was the subject well cored? ☐ Yes ☑ No
7. Initial water-level encountered na ft. below ground Date and time of measurement: na (month/day/year time)
8. Step-Drawdown Test completed? ☐ No ☑ Yes **Attach Step-Drawdown Test form (*12/17/97 SDPTD Form*)**
9. Constant Rate Aquifer Test completed? ☐ No ☑ Yes **Attach Constant Rate Aquifer Test form (*12/17/97 CRPTD Form*)**

Parameters prior to pump test:

10. Water-level: na ft. above msl Date and time of measurement: na (month/day/year time)
11. Chloride: 18,500 ppm Date and time of sampling: 10/05/04 na (month/day/year time)
12. Temperature: 59. 9 °F Date and time of measurement: 10/06/04 na (month/day/year time)
13. **Fill in the as-built section on the other side of this sheet.**
14. Attach plot plan and surveyor's stamped elevation report.
15. If a pump is not planned to be installed, please describe (below in the remarks section) how well is secured to prevent unauthorized access (example: lockable cover, threaded coupling, etc.)
16. Remarks: Items #7 and #10) these measurements were not taken but appear to be at mean sea level. Item #13) an as-built of the well detail is attached. Item #15) a locking cap assembly has been installed.

Licensed Driller (print) Water Resources International, Inc. C-57 Lic. No. ~~1773~~ 5058

Signature [signature] Date 1/25/05

Surveyor (print) Ryan M. Suzuki L.P.L.S. Lic. No. 10059

please attach stamped report

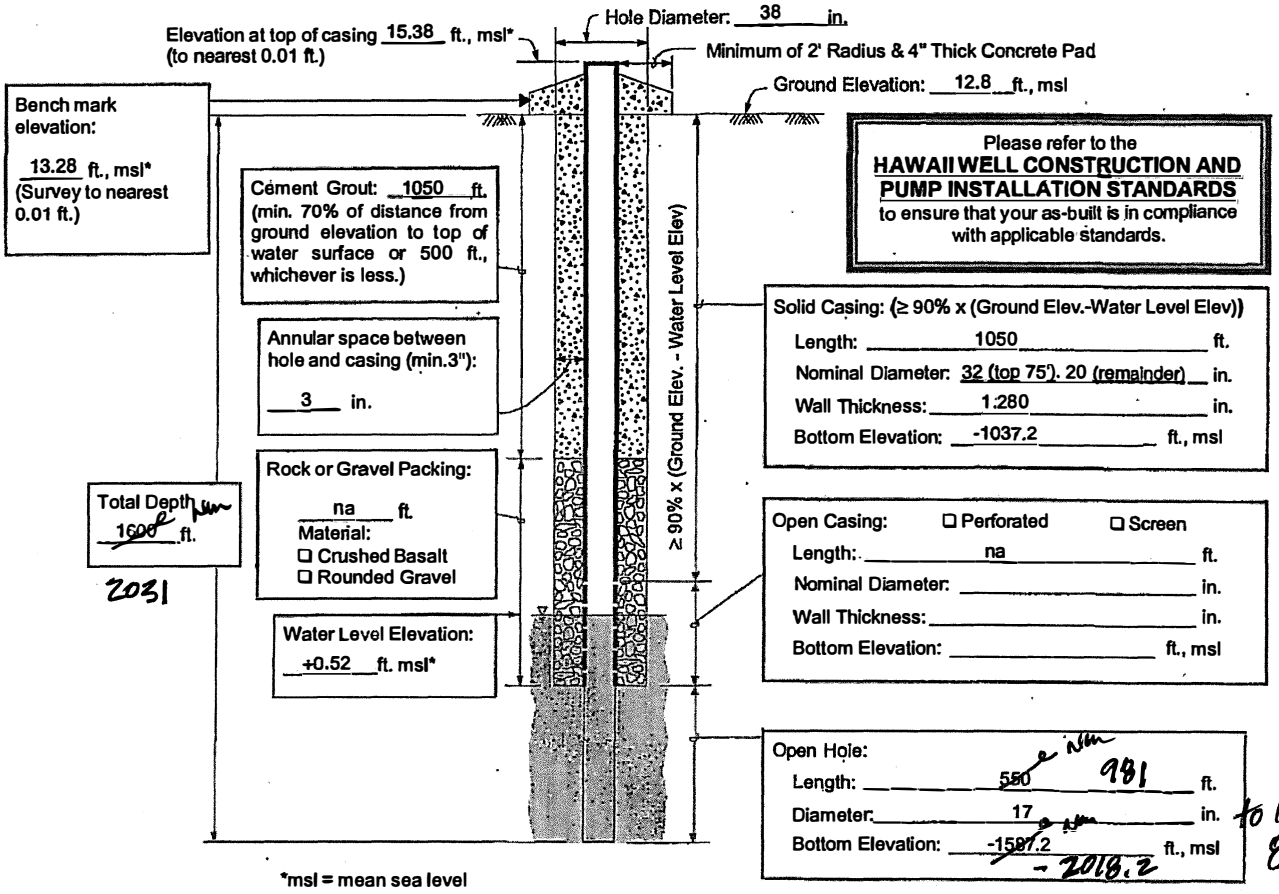
Signature [signature] Date 1/25/05

Permittee (print) Honolulu Board of Water Supply

Signature [signature] Date 1-25-05

WCR1 Form 9/29/00

13. AS-BUILT WELL SECTION *(Please attach as-built if different from diagram provided below)*



to 1600 ft depth, 8 in. to 2031 ft depth

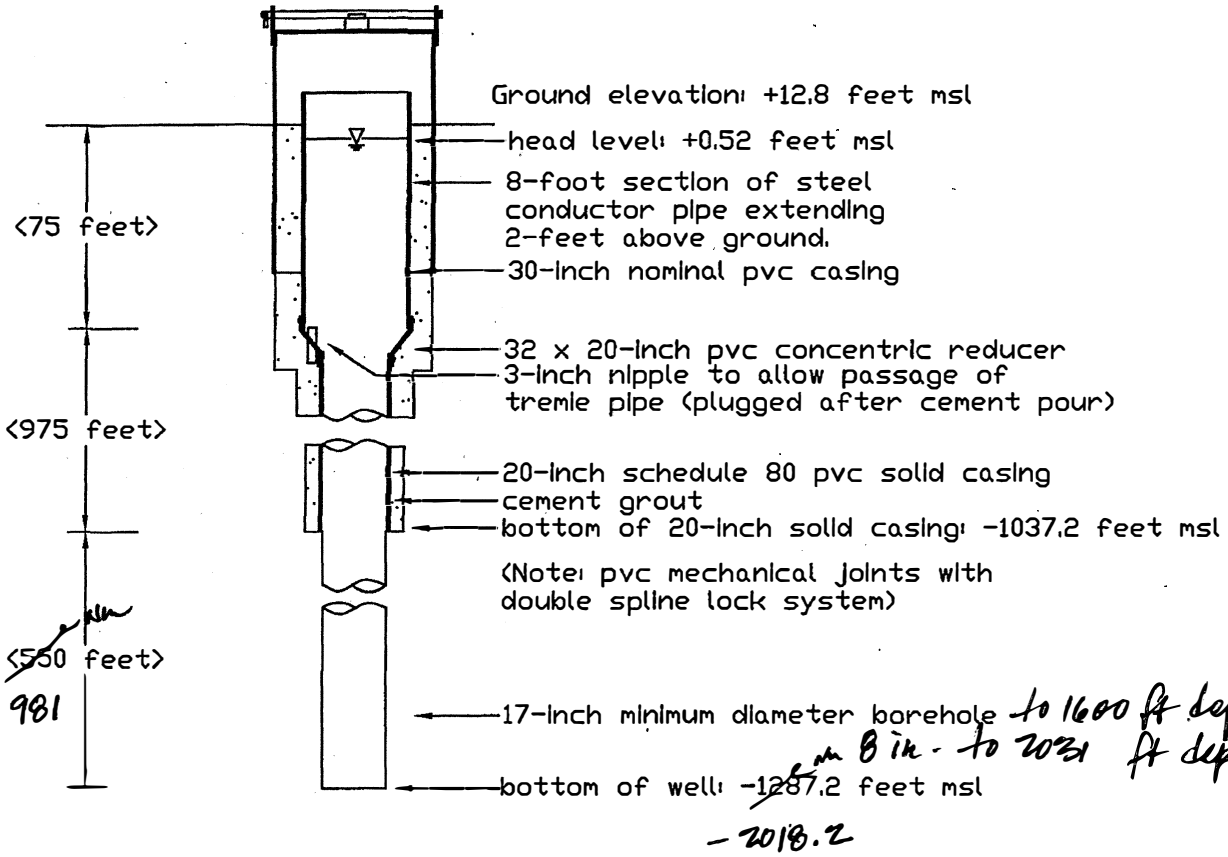
Solid Casing Material: 3-1805-15 KALAELOA BASALT

Carbon Steel: compliant with (*check one or more*): ☐ ANSI/AWWA C200 ☐ API Spec. 5L ☐ ASTM A53 ☐ ASTM A139
And compliant with (*check one or more*): ☐ ASTM A242 ☐ Type E ☐ Type S ☐ Grade B ☐ Other
Stainless Steel: (*check one*): ☐ ASTM A409 (production wells) ☐ ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F480 and ASTM D1527: (*check one*) ☐ Schedule 40 ☐ Schedule 80
PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (*check one*): ☐ Schedule 40 ☑ Schedule 80 ☐ Schedule 120
Thermoset Plastic: (*check one*) ☐ Filament Wound Resin Pipe conforming to ASTM D2996
☐ Centrifugally Cast Resin Pipe conforming to ASTM D2997
☐ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
☐ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
☐ PTFE Fluorocarbon Tubing conforming to ASTM D3296
☐ FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:

Carbon Steel: compliant with (*check one or more*): ☐ ANSI/AWWA C200 ☐ API Spec. 5L ☐ ASTM A53 ☐ ASTM A139
And compliant with (*check one or more*): ☐ ASTM A242 ☐ Type E ☐ Type S ☐ Grade B ☐ Other
Stainless Steel: (*check one*): ☐ ASTM A409 (production wells) ☐ ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F480 and ASTM D1527: (*check one*) ☐ Schedule 40 ☐ Schedule 80
PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (*check one*): ☐ Schedule 40 ☐ Schedule 80 ☐ Schedule 120
Thermoset Plastic: (*check one*) ☐ Filament Wound Resin Pipe conforming to ASTM D2996
☐ Centrifugally Cast Resin Pipe conforming to ASTM D2997
☐ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
☐ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
☐ PTFE Fluorocarbon Tubing conforming to ASTM D3296
☐ FEP Fluorocarbon Tubing conforming to ASTM D3296

KALAELOA BASALT WELL
1805-15 (second basalt well)



NOT TO SCALE

DRILLER'S LOG

WELL NUMBER: 1805-15

Depths (ft.)	Rock Description, Water Level, etc.	Dates	Depths (ft.)	Rock Description, Water Level, etc.	Dates
35-54 to 56	good Drly.	10-17-03	196 to 207	Soft Drlg	10-27-03
56 to 66	Slow Drly.	10-20-03	207 to 209	Hard Drlg	10-27-03
66 to 80	Slow Drly	10-21-03	209 to 211	good Drlg	10-27-03
80 to 85	Smooth Drly.	10-21-03	211 to 220	good Drlg	10-27-03
85 to 99	Slow Drly	10-23-03	220 to 240	good Drlg	10-27-03
99 to 102	good Drlg. Coarse Rock	10-23-03	240 to 245	Soft Drlg.	10-27-03
102 to 107	good Drlg "	10-23-03	245 to 280	Soft Drlg	10-27-03
107 to 108	Hard Drlg	10-23-03	280 to 293	good Drlg	10/28/03
108 to 117	Slow Drly.	10-23-03	293 to 310	Hard Drlg.	10/28/03
117 to 128	good Drlg	10-23-03	310 to 321	Hard	10-28/03
128 to 150	good Drlg	10-24-03	321 to 322	Hard	10-29-03
150 to 155	Fast Drlg	10-24-03	322 to 325	Soft	
155 to 161	Fast Drlg	10-24-03	325 to 328	Hard	
161 to 170	Hard Drlg	10-24-03	328 to 332	good	
170 to 185	good Drlg	10-24-03	332 to 338	good	
185 to 190	good Drlg	10-24-03	338 to 342	Hard	
190 to 194	good Drlg	10-27-03	342 to 374	good	
194 to 196	Hard Drlg	10-27-03	347 to 349	Soft	10/29/03

Remarks: 35 feet to 56 feet Fine Cuttings Return
56 feet to Coarse Cuttings And Change Color Was white / pink / white
150-155 feet muddy Water Drlg. Dirt / Sand.

Kalaeloa Basalt well

DRILLER'S LOG

WELL NUMBER: 489

Depths (ft.)	Rock Description, Water Level, etc.	Dates
349 to 353	Hard	10/29/03
353 to 360	Hard	
360 to 364	Hard 14"	
364 to 373	good	
373 to 374	Hard 14" wet	
374 to 395	Very good Dry	10/29/03
395 to 400	Hard	10/30/03
400 to 405	good	10-31
405 to 408	good	
408 to 410	Very Hard	
410 to 416	Slow	
416 to 421	good	
421 to 426	good	
426 to 436	Soft	
436 to 442	Hard	
442 to 450	Very Hard 14"	10/31
450 to 452	Soft Dry	10-31
452 to 467	good Dry	10-31
467 to 477	good Dry	10/31
477 to 486	Very good	10/31
486 to 499	Hard - 14"	10-31
499 to 506	" "	10-31
506 to 510	Slow	10-31
510 to 517	Hard	10-31
517 to 520	Hard	10-31
520 to 524	good 8.0"	11/3
524 to 529	Very Hard 14"	11/3
529 to 533	Very Hard	11-3
533 to 539	Slow	11-3
539 to 549	Very Hard 14"	11-3
549 to 551	Very Hard 14"	11-4
551 to 556	Slow Dry	11-4
556 to 561	Hard - 14"	11-4
561 to 565	good 8.0"	11-4
565 to 574	good	11-4
574 to 591	good	11-5

Remarks:

Kalaeloa Bank. well

DRILLER'S LOG

WELL NUMBER: 481

Depths (ft.)	Rock Description, Water Level, etc.	Dates
591 to 611	Very good 8,000	11-5
611 to 613	Hard	11-5
613 to 617	Hard	11-5
617 to 623	Slow	11-5
623 to 637	good 6,000	11-5
637 to 644	Hard	11-5
644 to 646	Hard	11-6
646 to 663	Hard	11-6
663 to 703	Very good	11-6
703 to 714	good.	11-7
714 to 716	Hard	11-10
716 to 726	Very Hard	11-23
726 to 731	Slow	11-24
731 to 736	Slow	11-24
736 to 744	good	11-24
744 to 774	good	11-25
774 to 779	Hard	12-2
779 to 807	Slow / good	12-3

Depths (ft.)	Rock Description, Water Level, etc.	Dates
807 to 839	good	12-5
839 to 854	Slow / good	12-5
854 to 858	good Change Color dark gray water 12-7	
to		
858 to 862	good Dry	12-8
862 to 871	Change Color good Dry	12-8
871 to 877	good - Slow	12-8
877 to 902	good Dry	12-9
902 to 933	Very good Dry	12-9
933 to 944	good	12-10
944 to 947	Hard. 10/14	12-10
947 to 968	Slow	12-10
968 to 977	Slow Change Color	12-11
977 to 996	Hard - 10/14	12-11
996 to 1006	good Change Tint.	12-12
1006 to 1013	Hard	12-12
1013 to 1015	good	12-12
1015 to 1028	Hard	12-12

Remarks:

DRILLER'S LOG

WELL NUMBER: #489 Kalaeloa Basalt well

Depths (ft.)	Rock Description, Water Level, etc.	Dates
1028 to 1036	good	12-16
1036 to 1038	Hard Broke Down	12-17
1038 to 1042	mud water	12-19
1042 to 1044	Hard 10/14	12-19
1044 to 1049	Hard	12-19
1049 to 1055	good Orange mud	12-19
1055 to 1056	Hard	12-22
1056 to 1061	Hard. Clay/Rock	12-22
1061 to 1063	mud water	12-23
1063 to 1066	Hard	12-23
1066 to 1022	good mud water	12-29
1022 to 1023	Hard. 12/14	1-9
1023 to 1075	Hard	1-9
1075 to 1078	good 10/12	1-9
1078 to 1081	good 10/12	1-9
1081 to 1084	Hard 10/14	1-9
1084 to 1088	good 10/12	1-9
	Hard	1-14

Depths (ft.)	Rock Description, Water Level, etc.	Dates
1088 to 1091	Hard 14,000	1-14
1091 to 1092	Hard 14,000	1-14
1092 to 1093		1-22
1093 to 1095	Hard 14,000	1-22
1095 to 1099	good 10/12,000	1-22
1099 to 1101	Hard 14,000	1-22
1101 to 1103	Hard 14,000	1-22
1103 to 1104	Clay Hard 14,000	1-22
1104 to 1105	Hard 14,000	1-23
1105 to 1107	good 8-10,000	1-23
1107 to 1109	good 8-10,000	1-23
1109 to 1110	good Soft	1-23
1110 to 1111	good 8-10,000	1-23
1111 to 1112	Hard 10/14,000	1-23 28" H
1112 to 1132	HARD BLK, Casol	6-28
1132 to 1138	Medium BLK, Casol	6-28
1138 to 1145	HARD BLK	6-28
1145 to 1155	HARD BLK	6-28

Remarks:

DRILLER'S LOG

WELL NUMBER: #489 KALAELOA BASALT WELL

Depths (ft.)	Rock Description, Water Level, etc.	Dates
1155 to 1170	HARD BLK	4-29
1170 to 1200	HARD BLK	4-29
1200 to 1212	Medium BLK Carol	4-30
1212 to 1226	Medium BLK, Carol	4-30
1226 to 1236	Medium BLK Carol	4-30
1236 to 1246	HARD BLK, Carol	4-30
1246 to 1256	HARD BLK, Carol, Some Red	4-30
1256 to 1266	HARD BLK Carol Some Red	5-24
1266 to 1276	Med	5-24
1276 to 1286	Med	5-24
1286 to 1296	Med	5-25
1296 to 1306	Med	5-25
1306 to 1316		5-25
1316 to 1326		5-25
1326 to 1336	Medium BLK, Carol Some Red	5-25
1336 to 1346	SOFT BLK, Carol, RED	5-25
1346 to 1356	BLK, Carol RED SOFT	5-26
1356 to 1366	Carol, RED, SOFT	5-26

Depths (ft.)	Rock Description, Water Level, etc.	Dates
1366 to 1376	SOFT Carol, Red Some BLK	5-26
1376 to 1386	Medium BLK, Carol, Red	5-26
1386 to 1396	Med	5-26
1396 to 1406	Med	5-26
1406 to 1416	Med	5-26
1416 to 1426	HARD BLK, White Some Red	5-27
1426 to 1436	HARD BLK, White, Some Red	5-27
1436 to 1446	SOFT BLK, White, Red	5-27
1446 to 1456	BLK, White, Red, Soft	5-27
1456 to 1466	BLK, White, Med	5-27
1466 to 1476	White, Some BLK Med	5-27
1476 to 1486	White, RED SOFT	5-27
1486 to 1496	White, Red SOFT	5-27
1496 to 1506	BLK, White, RED Med	5-27
1506 to 1516	BLK, HARD	5-28
1516 to 1526	HARD BLK Some White	5-28
1526 to 1536		
1536 to 1546		

Remarks:

DRILLER'S LOG

KALAELOA BASALT WELL

WELL NUMBER: #489

Depths (ft.)	Rock Description, Water Level, etc.	Dates	Depths (ft.)	Rock Description, Water Level, etc.	Dates
1546 to 1556	BLK, Some white, Red MED	5-29	to		
1556 to 1566	BLK, Some white, Red MED	5-29	to		
1566 to 1573	BLK, White, Red SOFT	5-29	to		
to			to		
to			to		
to			to		
to			to		
to			to		
to			to		
to			to		
to			to		
to			to		
to			to		
to			to		
to			to		
to			to		
to			to		
to			to		

Remarks:

DRILLER'S LOG

WELL NUMBER: #489 KALAELOA DPBE WELL 02-0013

Depths (ft.)	Rock Description, Water Level, etc.	Dates	
1573 to 1582	HARD AIR PSI 200	6/1	18"
1582 to 1585	Medium Light Brown	6/1	
1585 to 1588	Soft Brown Water	6-2	
1588 to 1594	medium AIR PSI 210	6-2	
1594 to 1610 KB	BLK & RED CINDER MED	6-2	
1610' to 1620'	SAME	6-2	9 1/2" Bore
1630 to 1640'		6-2	
1640 to 1650'		6-2	
1650' to 1660'		6-3	
1660 to 1670'		6-3	
1670 to 1680'		6-3	
1680' to 1690'		6-3	
1690 to 1700'	Gray: BLK Some Cinder	6-3	
1700' to 1710'	" " " MED	6-3	
1710' to 1720'	BLK, RED CINDER MED	6-3	
1720' to 1730'	" " " "	6-3	
1730 to 1740	BLK, RED CINDER MED	6-3	
1740 to 1750	" " " "	6-3	

Depths (ft.)	Rock Description, Water Level, etc.	Dates	
1750 to 1755	BLK ROCK (HARD)	6-3	8 5/8
1755 to 1761	BLK, RED CINDER, MED	6-3	
1761 to 1771	BLK, RED CINDER, MED	6-4	PSI 210
1771 to 1781	BLK, RED CINDER MED	6-4	
1781 to 1785	BLK & RED CINDER HARD	6-4	
1785 to 1790	BLK Very HARD	6-4	220
1790 to 1793	CINDER, some BLK, cinder	6-7	220
1793 to 1803	SAME MED	6-7	220
1813 to 1824	SAME MED	6-7	220
1824 to 1834		6-8	130
1834 to 1844		6-8	130
1844 to 1856		6-8	130
1856 to 1860	BLK, RED CINDER MED	6-8	
1860 to 1867	BLK, RED CINDER MED	6-9	
1867 to 1877	Some CINDER BLK Rock Hard	6-10	
1877 to 1887	BLK, some cinder Hard	6-10	
1887 to 1897 KBD	BLK cinder, cinder MED	6-14	160
1897 to [redacted]	BLK, some RED Hard	6-14	

Remarks:

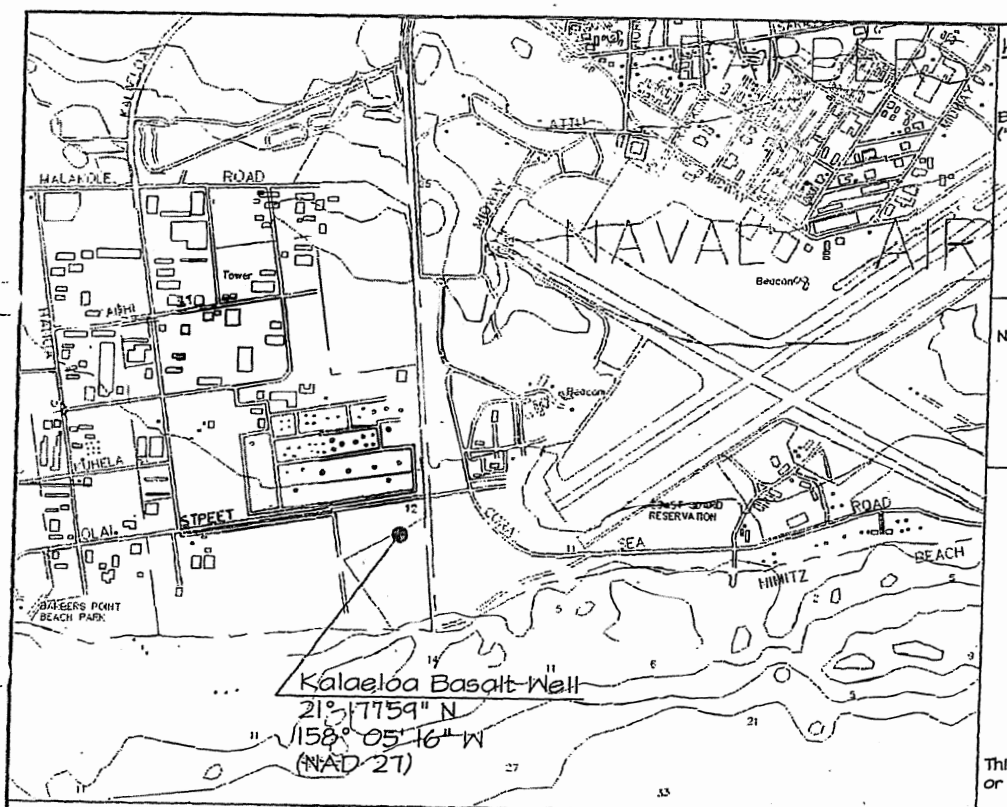
DRILLER'S LOG

WELL NUMBER: J-489

Depths (ft.)	Rock Description, Water Level, etc.	Dates	Depths (ft.)	Rock Description, Water Level, etc.	Dates
1900 to 1908	BLK, RED, WHITE, med	6-14 8 3/8	to		
1908 to 1914	BLK, RED, 'HARD'	6-14 160	to		
1914 to 1919	BLK, HARD, SOME RED, some coal	6-14	to		
1919 to 1929	BLK, RED, coal, med	6-15	to		
1929 to 1939	BLK, RED, HARD, some coal	6-15	to		
1939' to 1944'	BLK, RED, MED, BROWN, some coal	6-15	to		
1944' to 1950'	" " "	6-15	to		
1950' to 1960'	" " "	6-15	to		
1960 to 1967	BLK, RED, white, MED	6-16	to		
1967 to 1970	BLK, RED, white, MED	6-16 PSI 195	to		
1970 to 1974	" " " "	6-16	to		
1974' to 1981'	BLK, 'HARD', some RED, some white	6-16	to		
1981 to 1991	BLK, RED, MED, some white	6-16 PSI 200	to		
1991 to 2004	BLK, RED, white, MED	6-16 PSI 200	to		
2004 to 2013	BLK, RED, white, med	6-17 210	to		
2013 to 2018	" " " "	6-17	to		
2018 to 2021	BLK, 'HARD', some RED, coal	6-17	to		
2021 to 2031	BLK, MED, some RED, coal	6-17 220	to		

TD

Remarks:



Well Elevation

Benchmark Elevation = 13.28 feet ("□" Cut)

Notes:
Elevations are referred to Mean Sea Level (M.S.L.).

RYAN M. SUZUKI
LICENSED PROFESSIONAL LAND SURVEYOR
No. 10059
HAWAII, U.S.A.

This map was prepared by me or under my direct supervision

Ryan M. Suzuki 12/30/04
Ryan M. Suzuki
Licensed Professional Land Surveyor
Certificate Number 10059

N

Scale: 1" = 2000'

Well Location
Well Name: Kalaeloa Basalt Well
State Well #1805-15
at Honouliuli, Ewa, Oahu, Hawaii
Tax Map Key: 9-1-31 (1st Div.)

FB #7290
FN: KalaeloaWell.dwg

R. M. TOWILL CORPORATION
SINCE 1930

420 Walakamilo Road Suite 411
Honolulu, Hawaii 96817
November 30, 2004

Appendix B

February 21, 2024 Video Log

Kalaeloa Well 15 Video Inspection (02/21/2024)		
Video Time (mm:ss)	Depth (ft.TOC)	Notes
0:12	0.0	Condutor casing rust scale falling into well.
0:37	0.0	Possible crack in the PVC casing, can see off-set in the casing wall at surface and the suspected crack can be seen extending downward when camara turns to downhole view from surface (left side of image at 0:50sec).
2:11	13.1	Static water level(SWL). Suspected crack continues from surface to below water level.
2:28	14.7	The first PVC casing connection appears to have chipping and gapping at the connection.
4:50	32.4	The second PVC casing connection is in better condition. Crack or linear growth observed at SWL still visable at 05:00
5:55	68.7	View of casing reduction. The top of the tremie pipe terminus is 70.6 ft, top of the reducer sectionis 73.0 ft, seal between the bottom of the 32 in casing and reduction section is covered with a sealant and appears tight. The tremie pipe is loosely inserted into a larger PVC pipe that enters the bell reducer and does not seem to have a tight seal at the base. The bottom of the reducer in 75.0 ft, the video does not show the bottom seal of the reducer.
10:29	95.0	Significant dark discoloration along the casing wall below a casing connection.
11:36	133.4	Image showing either exposed O-ring at connection
19:18	509.3	The casing connection appears to have either a biological build-up or material coming from the connection.
21:45	624.7	Casing connection, the O-ring is visible, and a small growth can be seen coming from the connection.
33:30	1098.5	The base of the PVC casing increases in the coating on the casing walls 3 feet from the bottom. Open borehole past this point.
52:18	1503.3	Tagged bottom.

Appendix C

May 7, 2024 Video Log and Screenshots

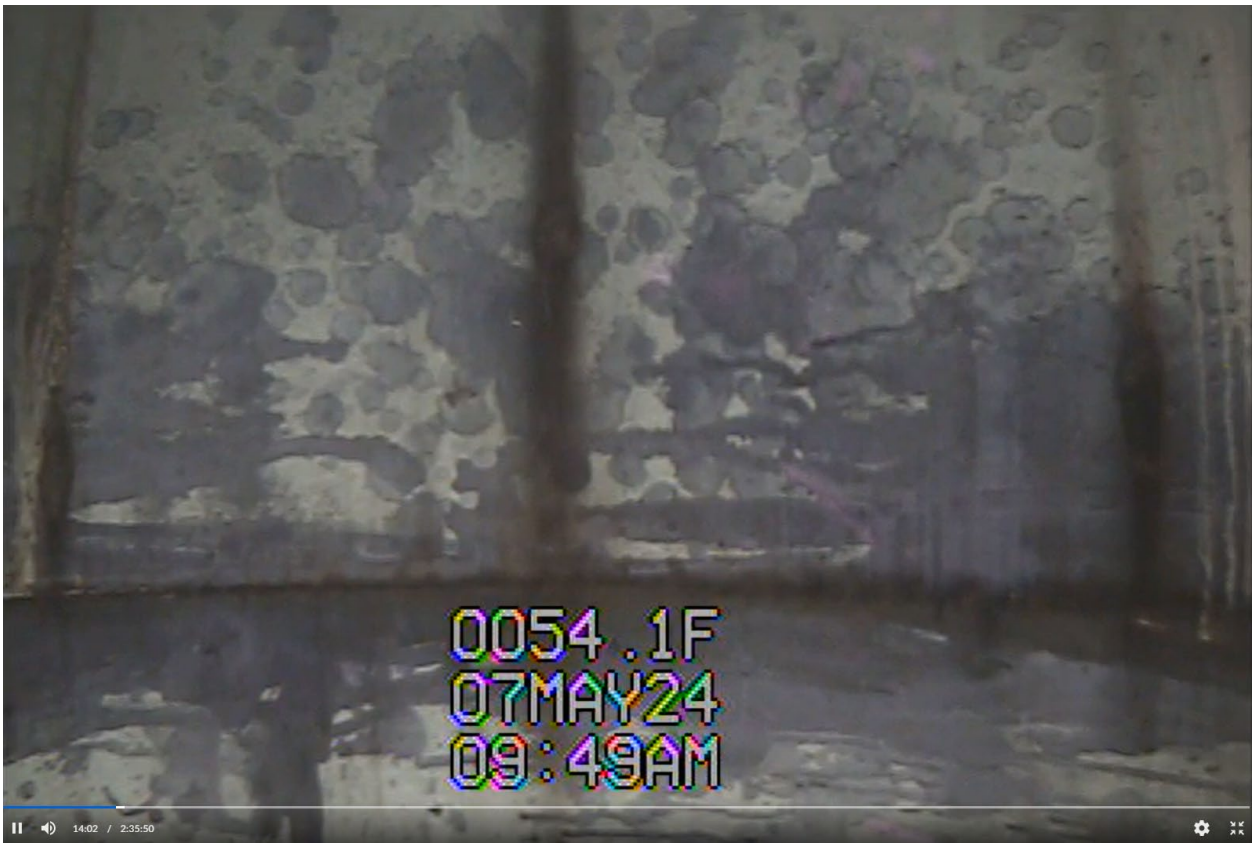


Photo 1
Depth (ft below TOC): 54.1
Feature: Joint in 32” nominal casing

Notes: PVC primer and joint. Multiple rust stains in circular pattern around casing.

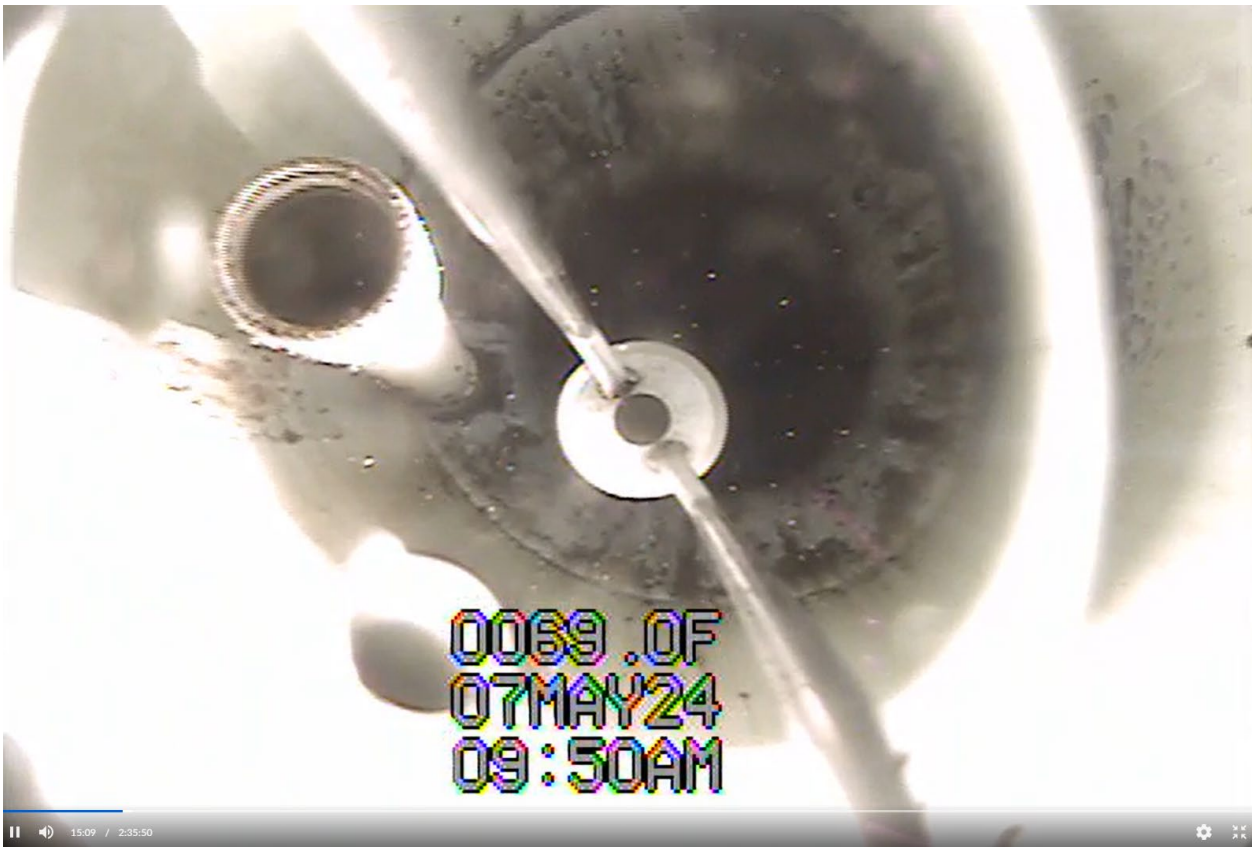


Photo 2
Depth (ft below TOC): 69.0
Feature: Pipe at the top of the reducer

Notes: Top of 2 ½" pipe protruding from nipple. No cement visible in the pipe.

Photo 3
Depth (ft below TOC): 73.0
Feature: Tremie Pipe Nipple at reducer

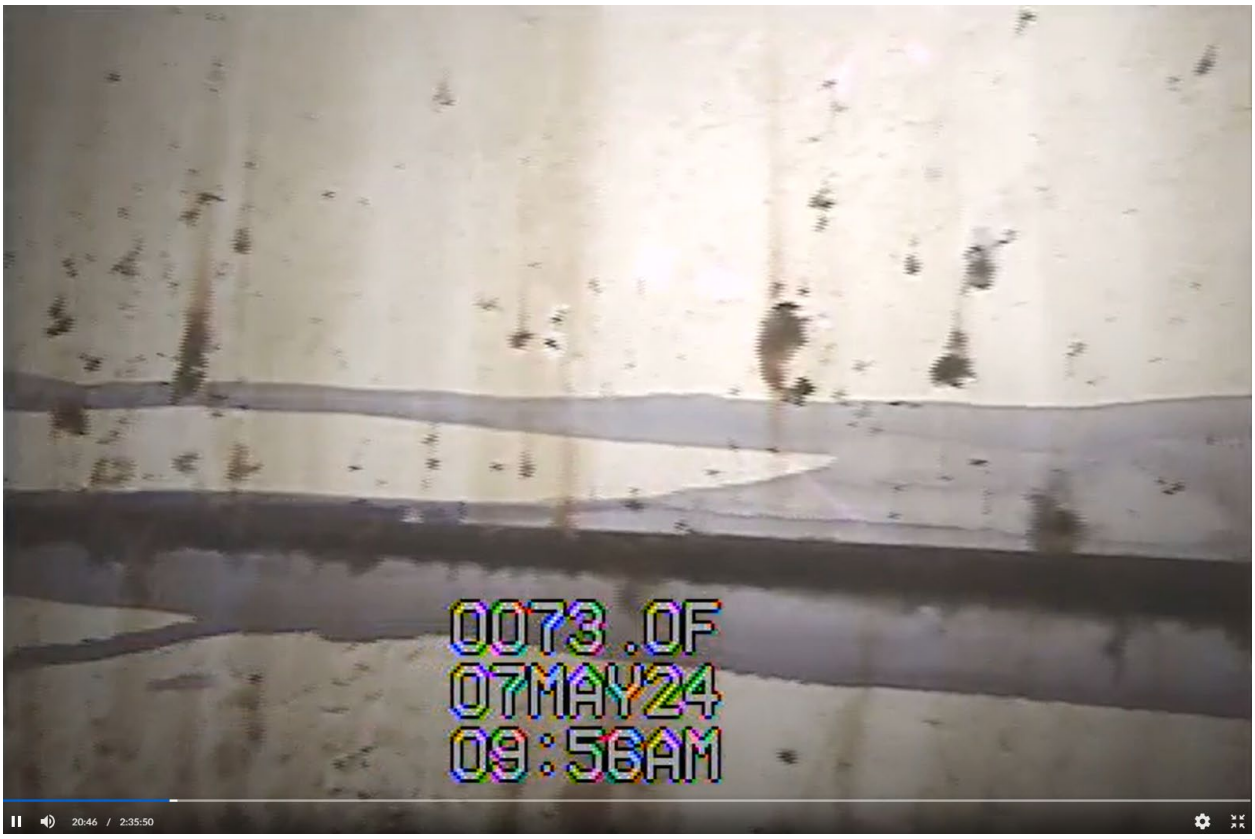


Photo 4
Depth (ft below TOC): 73.0
Feature: top join to reducer

Notes: PVC primer around joint. Possibly some protruding growth around the joint.

Photo 5
Depth (ft below TOC): 75.4
Feature: Bottom of reducer. Note precipitate or grout around joint.

Photo 6
Depth (ft below TOC): 265.8
Feature: Joint

Notes: Object protruding from joint, possibly gasket. Possible chipping, precipitate above joint.

Photo 7
Depth (ft below TOC): 398.2
Feature: Joint

Notes: Object protruding from joint, possibly gasket. Mineral precipitate or grout leakage around joint.

Photo 8
Depth (ft below TOC): 435.8
Feature: Joint

Notes: Mineral precipitate or grout leaking around joint. Possible biofouling.

Photo 9
Depth (ft below TOC): 492.6
Feature: Joint

Notes: Biofouling, mineral precipitate, or grout leakage around joint.

Photo 10
Depth (ft below TOC): 511.5
Feature: Joint

Notes: Biofouling , mineral precipitate, or grout leakage. Possibly protruding gasket.

Photo 11
Depth (ft below TOC): 625.3
Feature: Joint

Notes: Biofouling. Possible joint displacement.

Photo 12
Depth (ft below TOC): 682.0
Feature: Joint

Notes: Possible offset of joint or gap.

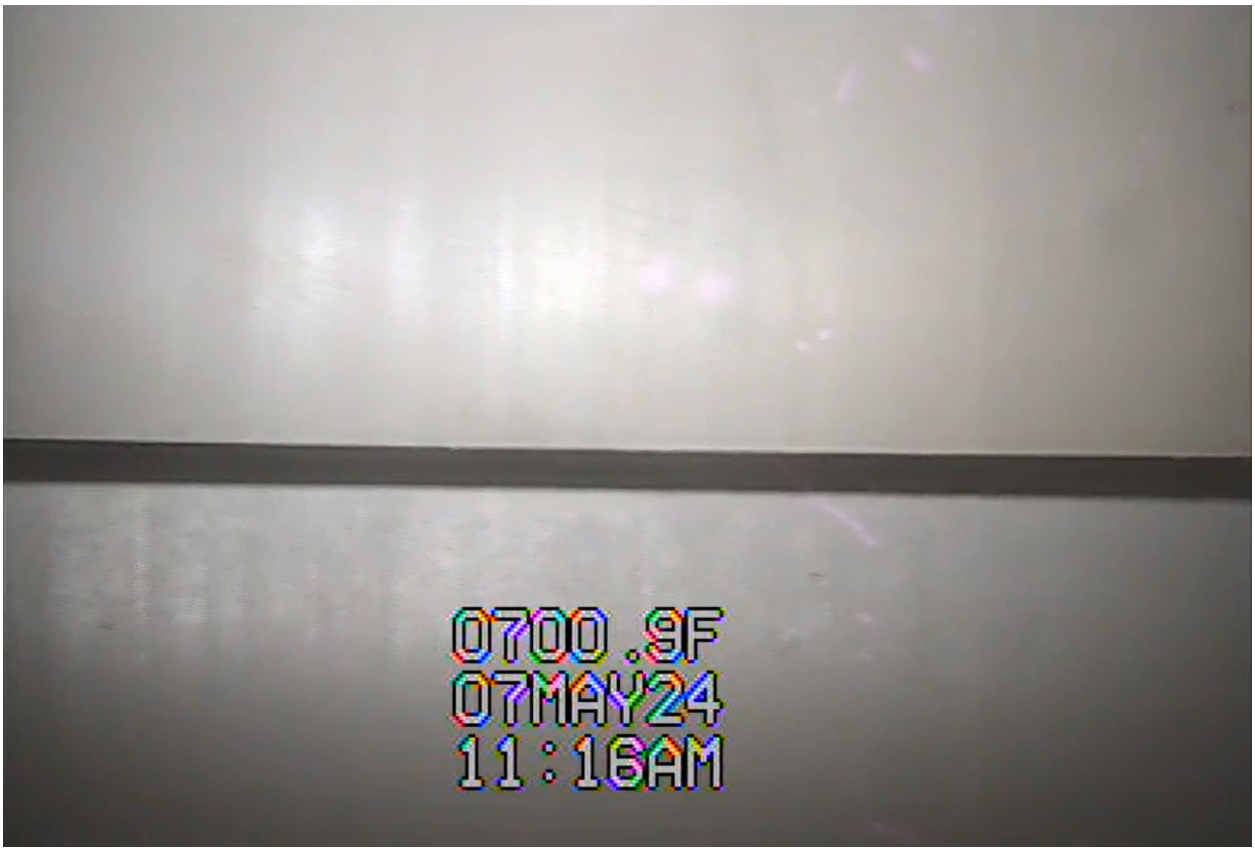


Photo 13
Depth (ft below TOC): 700.9
Feature: Joint

Notes: Normal joint.

Appendix D

Product Specification Sheets

Stainless Steel 2507 Grade Data Sheet

Grade 2507

Grade 2507 is one of a group of "super duplex" grades, combining high strength with exceptional corrosion resistance.

2507 is very highly resistant to general corrosion and to pitting and crevice corrosion in high chloride, hot environments. Its duplex structure also results in excellent resistance to stress corrosion cracking.

Like other duplex (ferritic/austenitic) grades the super duplex grades are not suitable for high or low temperature service. 2507 is not recommended for temperatures below -50°C or above +300°C, because of reduced toughness outside this range.

The high strength favours applications in pressure vessels and for marine and other shafts.

Corrosion Resistance

2507 has excellent general corrosion resistance, superior to virtually all other stainless steels. It has high resistance to intergranular corrosion and very high resistance to stress corrosion cracking in both chloride and sulphide environments.

A PRE of least 40 indicates that the material has good pitting and crevice corrosion resistance to warm sea water and other high chloride environments; it is rated as more resistant than grade 904L and approximating that of the 6% Molybdenum "super austenitic" grades.

2507 is the grade of choice for severe high temperature marine environments and for chemical and petrochemical processing, even including some solutions of strong acids.

Heat Resistance

Although super duplex grades have good high temperature oxidation resistance, like other duplex stainless steels they suffer from embrittlement if held for even short times at temperatures above 300°C. If grade 2507 becomes embrittled this can only be rectified by a full solution annealing treatment.

Heat Treatment

Solution Treatment (Annealing)

Heat to 1040 - 1120°C and cool rapidly in air or by water quenching. Duplex and super duplex grades cannot be hardened by thermal treatment.

Welding

2507 is weldable by standard methods, without pre-heat. Consumables over-alloyed with nitrogen and nickel are generally recommended such as those with ISO designation “25 9 4 L N”. TIG (GTAW), MIG (GMAW) and all positional manual (MMAW) electrodes are available. Heat input should be within the range 0.5 – 1.5kJ/mm. Post weld annealing is essential following autogenous welding, but not otherwise. Nickel-based consumables (e.g. Alloy C22) can also be used to give higher corrosion resisting welds. As for other duplex stainless steels the coefficient of thermal expansion of 2507 is lower than for austenitic grades, reducing distortion and residual stresses.

Fabrication

2507 is a high strength steel, so high forming forces will be required and high spring-back should be anticipated. The ductility of the grade is quite adequate for most operations, but heavy

Stainless Steel 2507 Grade Data Sheet

deformation, such as cold forging, is not possible. If more than about 20% cold work is carried out an intermediate solution anneal is required. Hot forging can be carried out in the temperature range 1200 – 1025°C. Like other duplex grades 2507 has low hot strength, so may need support during heat treatment or forging. Hot forging should be followed by solution treatment.

Typical Applications

Oil and gas exploration, processing and support systems, pollution control including flue gas desulphurisation, marine and other high chloride environments, desalination plants, chemical processing, transport and storage, pulp and paper processing.

Specified Properties

These properties are specified for flat rolled product (plate, sheet and coil) in ASTM A240M and for pipe in ASTM A790M, as UNS S32750. Similar but not necessarily identical properties are specified for other products in their respective specifications.

Composition Specification (%)

Grade		C	Mn	Si	P	S	Cr	Mo	Ni	Cu	N
2507	min.	-	-	-	-	-	24.0	3.0	6.0	-	0.24
	max.	0.030	1.20	0.80	0.035	0.020	26.0	5.0	8.0	0.50	0.32

Mechanical Property Specification

Grade	Tensile Strength (MPa) min.	Yield Strength 0.2% Proof (MPa) min.	Elongation (% in 50mm) min.	Hardness	
				Rockwell C (HR C) max.	Brinell (HB) max.
2507	795	550	15	32	310

Physical Properties (Typical values in the annealed condition)

Grade	Density (kg/m³)	Elastic Modules (GPa)	Mean Coefficient of Thermal Expansion		Thermal Conductivity	Specific Heat	Electrical Resistivity
			0-100°C (µm/m/°C)	0-400°C (µm/m/°C)	at 20°C (W/m.K)	0-100°C (J/kg.K)	(nΩ.m)
2507	7800	200	13.0	14.5	14.2	460	850

Grade Specification Comparison

Grade	UNS No	Euronorm		Swedish SS	Japanese JIS
		No	Name		
2507	S32750	1.4410	X2CrNiMoN25-7-4	2328	-

These comparisons are approximate only. The list is intended as a comparison of functionally similar materials **not** as a schedule of contractual equivalents. If exact equivalents are needed original specifications must be consulted.

Stainless Steel 2507 Grade Data Sheet

Possible Alternative Grades

Grade	Why it might be chosen instead of 2507
2205	The lower cost and better availability of 2205 are required, and a lower corrosion resistance and strength can be accepted.
6%Mo	Higher ductility of this austenitic grade is needed, and the much lower strength is acceptable. Corrosion resistance is similar in many environments, but needs to be considered case by case.
Ni Alloys	A corrosion resistance even higher than 2507 is required, and a higher cost is acceptable.

Limitation of Liability
The information contained in this Atlas Steels Stainless Steel 2507 Grade Data Sheet document is not an exhaustive statement of all relevant information. It is a general guide for customers to the products and services available from Atlas Steels and no representation is made or warranty given in relation to this information or the products or processes it describes.

TAM INTERNATIONAL

REV. B2

FREECAP®

Customer	Intera
Well Name	Kalaeloa Basalt Well 3-1805-15
Date	21-Aug-24
Packer Description	**14.00 (in) x 17.63 (in) x 3 (ft)**
Packer Type	FREECAP I
Elastomer Type	**Low Temp Water Swell -- FSC-124**
Activation Fluid	fresh water

Input Parameters

Casing Size	14.00	in.	355.6	mm
Minimum Restriction	18.00	in.	457.2	mm
Sealing ID - Minimum	18.00	in.	457.2	mm
Sealing ID - Maximum	18.00	in.	457.2	mm
Maximum Δ Pressure	3,000	psi	206.9	bar
Wellbore Deviation	vertical	deg	vertical	deg
Setting Depth Temperature	70	deg F	21.1	deg C
Setting Depth	TBD	ft.	TBD	meter
RIH Time	12.00	hr.		

Output Parameters

RIH - Packer OD	17.625	in.	447.7	mm
Centralizer OD	17.625	in.	447.7	mm

---------- Results for a decentralized packer ----------

Time To Swell To 18.00 (in) Sealing ID 4.9 days ◆

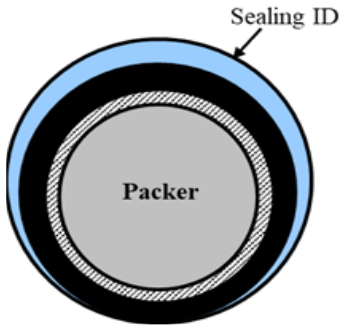
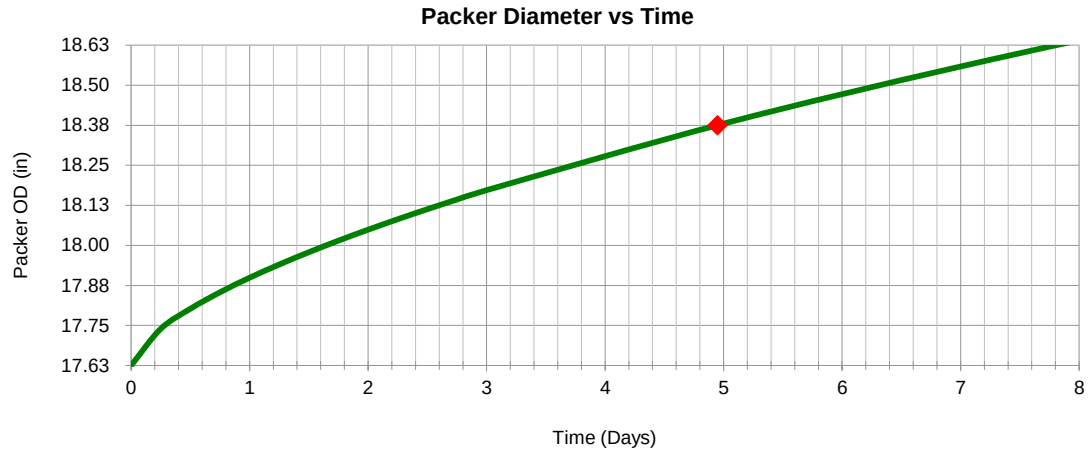
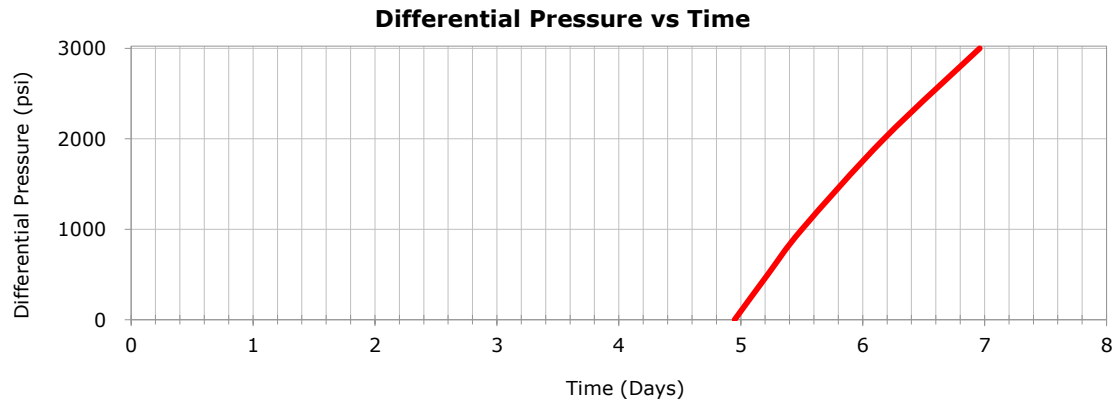
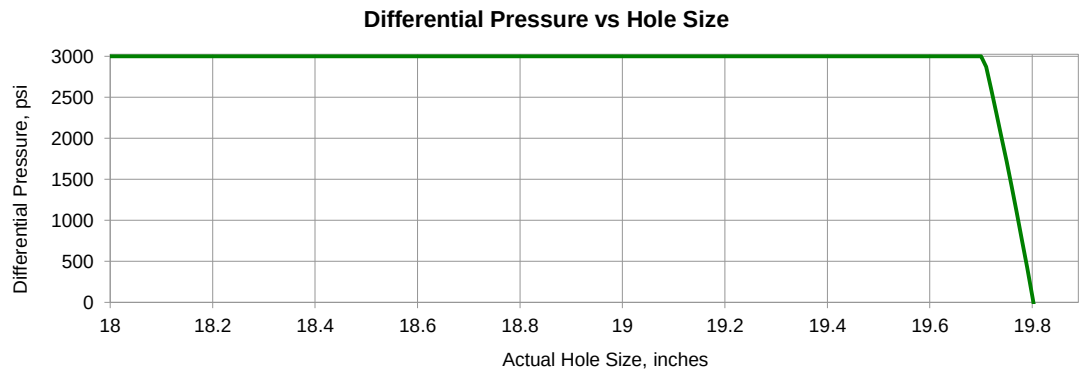


Illustration showing a swellable packer eccentered in a deviated wellbore. Additional swell is required on the high side under eccentric conditions.







TAM INTERNATIONAL

REV. B2

FREECAP®

Customer	Intera
Well Name	Kalaeloa Basalt Well 3-1805-15
Date	21-Aug-24
Packer Description	**24.00 (in) x 26.63 (in) x 3 (ft)**
Packer Type	FREECAP I
Elastomer Type	**Low Temp Water Swell -- FSC-124**
Activation Fluid	fresh water

Input Parameters

Casing Size	24.00	in.	609.6	mm
Minimum Restriction	27.00	in.	685.8	mm
Sealing ID - Minimum	27.00	in.	685.8	mm
Sealing ID - Maximum	27.00	in.	685.8	mm
Maximum Δ Pressure	3,000	psi	206.9	bar
Wellbore Deviation	vertical	deg	vertical	deg
Setting Depth Temperature	70	deg F	21.1	deg C
Setting Depth	TBD	ft.	TBD	meter
RIH Time	12.00	hr.		

Output Parameters

RIH - Packer OD	26.625	in.	676.3	mm
Centralizer OD	26.625	in.	676.3	mm

---------- Results for a decentralized packer ----------

Time To Swell To 27.00 (in) Sealing ID 4.9 days ◆

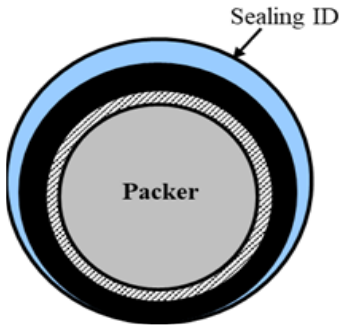
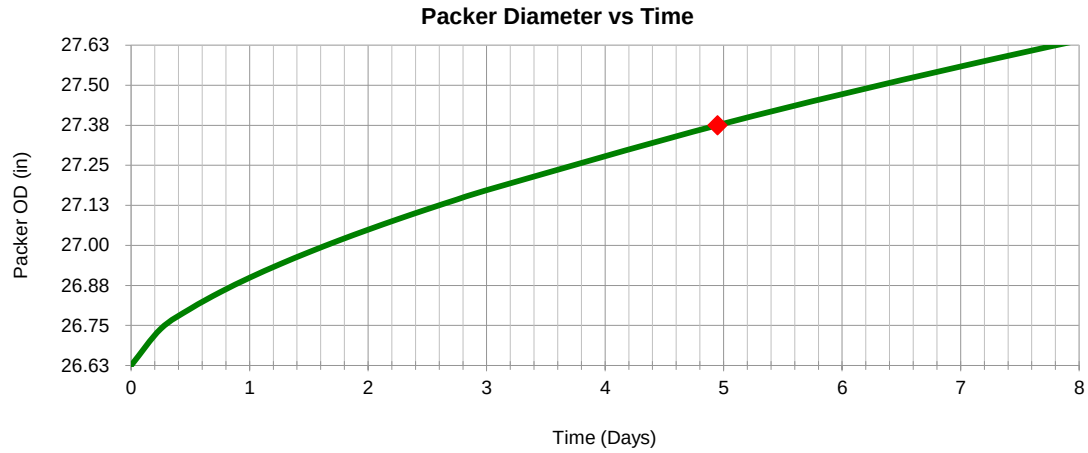
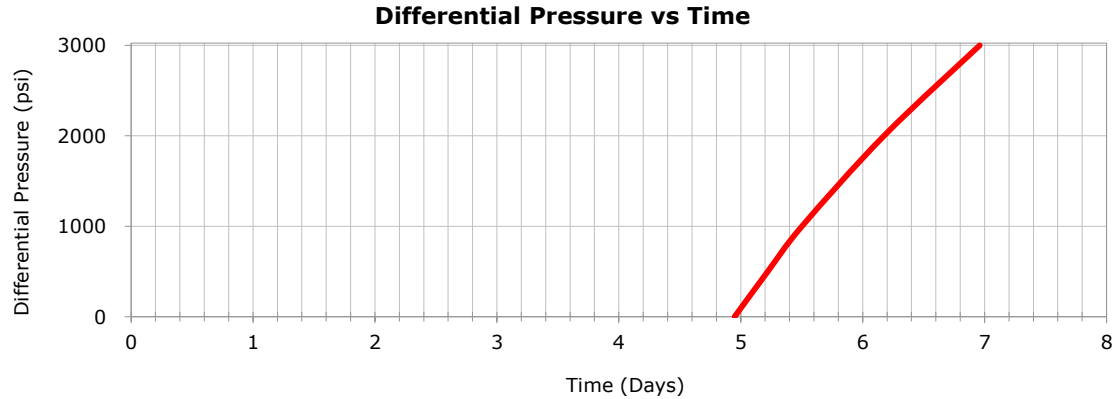
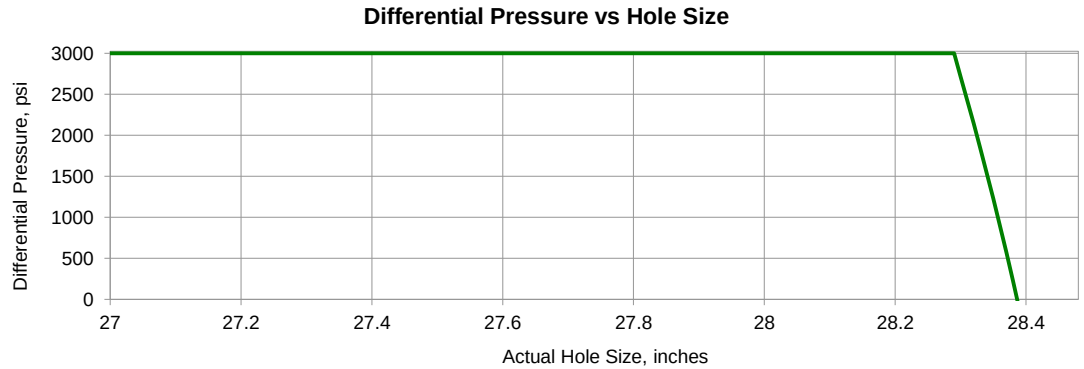


Illustration showing a swellable packer eccentered in a deviated wellbore. Additional swell is required on the high side under eccentric conditions.







Appendix E

Vendor Cost Estimates

Well Repair Materials - Vendor Cost Estimates

Liner Materials

Vendor	Material Specs	QTY	Cost per QTY	Total Cost	Notes
Mill Man Steel	24" OD X .375 Wall STD, Super Duplex 2507 Pipe, SRL's PE	80 FT	$1,150/FT	$92,000.00	FOB Houston, TX. Terms Net 30. Freight PPD & ADD or Will Call via Freight Forwarder. Quote valid 1 week. 20 ft long joints.
	16" OD X .375 Wall STD, Super Duplex 2507 Pipe, SRL's PE	20 FT	$735/FT	$14,700.00	FOB Houston, TX. Terms Net 30. Freight PPD & ADD or Will Call via Freight Forwarder. Quote valid 1 week.
	24"X 16", Reducer, Concentric, Super Duplex 2507, S40/STD	1 EA	$12,900/EA	$12,900.00	10-12 Weeks for Reducer.
	Estimated Total Cost			**$119,600.00**	
Elevated Drilling Supply	14" 40S Duplex 2507 A928 WLD Pipe 100% X-Ray	20 FT	$751/FT	$15,020.00	FOB Phoenix. Material in stock. Can ship in 1-2 days. Payment Terms 50% on order, Invoice 50% net 30, 2% if 10 days. 20 ft long joints.
	24" 40S Duplex 2507 A928 WLD 100% X-Ray	80 FT	$1,145/FT	$91,600.00	FOB Phoenix. Material in stock. Can ship in 1-2 days. Payment Terms 50% on order, Invoice 50% net 30, 2% if 10 days.
	14"X 24" Reducer	1 EA	$14,385/EA	$14,385.00	3 week lead time.
	Estimated Total Cost			**$121,005.00**	
Independent Pipe Supply	14" X .375 - 54.62# New Steel Pipe ASTM A 928 CL. UNS S32750 Welded Pipe 100% X-Ray	20 FT	$655/FT	$13,100.00	Steel is Super Duplex 2507. 19 ft long joints.
	24" X .375 - 94.71# New Steel Pipe ASTM A 928 CL. UNS S32750 Welded Pipe 100% X-Ray	80 FT	$731.25/FT	$58,500.00	Delivery charge - Common Carrier: $2,350.
	24"X 14" Reducer, ASTM A 928 CL. 1 UNS S32750 Welded Pipe 100% X-Ray	1 EA	$4562.50/EA	$4,562.50	
	Estimated Total Cost			**$76,162.50**	

Swellable/K-Packers

Vendor	Material Specs	QTY	Cost per QTY	Total Cost	Notes
TAM International**	14" Packer pipe	2 EA	$21,000/EA	$ 42,000.00	Hard quote to come 9/6/24. 14-week lead time from receipt of order.
	24" Packer pipe	1 EA	$26,000/EA	$ 26,000.00	Hard quote to come 9/6/24. 14-week lead time from receipt of order.
Elevated Drilling Supply	14" ID x 17 3/4 (OD can be changed) k-Packers	1 EA	$7,875/EA	$ 7,875.00	4-5 week lead time. Can be build onto 14" Duplex pipe at the factory in Conroe, TX.
Custom Made	150# 30" PVC Flange	1 EA	$3,000/EA	$ 3,000.00	Budgetary estimate.

****Additional Notes on TAM International Packers**

TAM International - Swellable Packers

Using a swellable packer less than 100 psi will be applied to the PVC wall to ensure there will not be structural integrity issues with the PVC or grout surrounding the PVC. See "Freecap" attachment.

- Packers will be installed on the 14" casing at the TAM facility.
- The packers swell more efficiently with fresh water than salt. A fresh water source will be required to attain the diameter as described in the table below.
- When the time requirement for swelling has been achieved grout can be placed in the annular space between the duplex steel and pvc.
- Below are the measurements and days for swelling to occur on the initial packer discussion. Please note diameters have changed since these were calculated. Fresh numbers are to be released with quote.

Paker pipe X OD	Cased Hole ID	Days to Contact	Days to 1000 PSI	Swelling Fluid
14 X 17.63	18	4.9	5.4	FW
14 X 17.63	18	14.6	16.4	Seawater
24 X 26.63	27	4.9	5.5	FW
24 X 26.63	27	14.6	16.4	Seawater

Note from TAM below on using an upper swellable packer on the 24" in lieu of a flange on top.
I know the 14 X 17.63 was the original request, but offering up the 24 X 26.63 as an option to isolate the nipple leak.

INTERA Incorporated
74 Kihapai St.
Kailua, HI 96734
+1 (808) 382 6853
INTERA.com

TECHNICAL MEMORANDUM

TO: Barry Usagawa, PE, Honolulu Board of Water Supply

FROM: Kevin Gooding, CPG; Eva Kakone, INTERA Incorporated

DATE: November 8, 2024

RE: Kalaeloa Saltwater Desalination Facility Well 13 (3-1805-013) Investigation

---

1 Introduction

Seawater supply for the proposed Kalaeloa desalination plant is planned to come from the two existing on-site deep basalt wells that are approximately 1,600 (ft) deep, respectively Well No. 3-1805-013 (Well 13) and Well No. 3-1805-015 (Well 15). These wells are designed to produce water from the basalt saltwater aquifer. There is also a 300-feet well installed in the Caprock (UIC Well Permits UO-2179; Well No. 3-1805-014). **Figure 1** is a site map showing the locations of the Basalt wells (Well 13 and Well 15) and the Caprock well (Well 14).

Analysis of water level data collected and reviewed by INTERA between December 2023 and January 2024 indicated that Well 15 may be in communication with the caprock aquifer. As shown in **Figure 2**, water levels in Well 15 track the water levels in the caprock well and differ from those in Well 13. Furthermore, Well 15 shows a response to tidal influence that is comparable to the caprock well, which suggests that Well 15 is hydraulically connected to the upper caprock aquifer. Conversely, Well 13 does not show a tidal response. Based on these results, an investigation of Well 15 was performed in June 2024 to evaluate the condition of the well casing and/or annual seal and determine if the well is leaking. An investigation of Well 13 was also conducted because the construction materials are similar to those used in Well 15. It was hypothesized that Well 15 has a breach in the casing and/or annual seal, causing it to leak, while Well 13 is in good condition with no indications of leakage.

This Technical Memorandum summarized the investigation findings for Well 13. A tech memo covering the investigative findings and recommendations pertaining to Well 15 will be submitted separately from this report.

Figure 1. Site map showing locations of the (Well 13 and Well 15) and the Caprock well (Well 14).

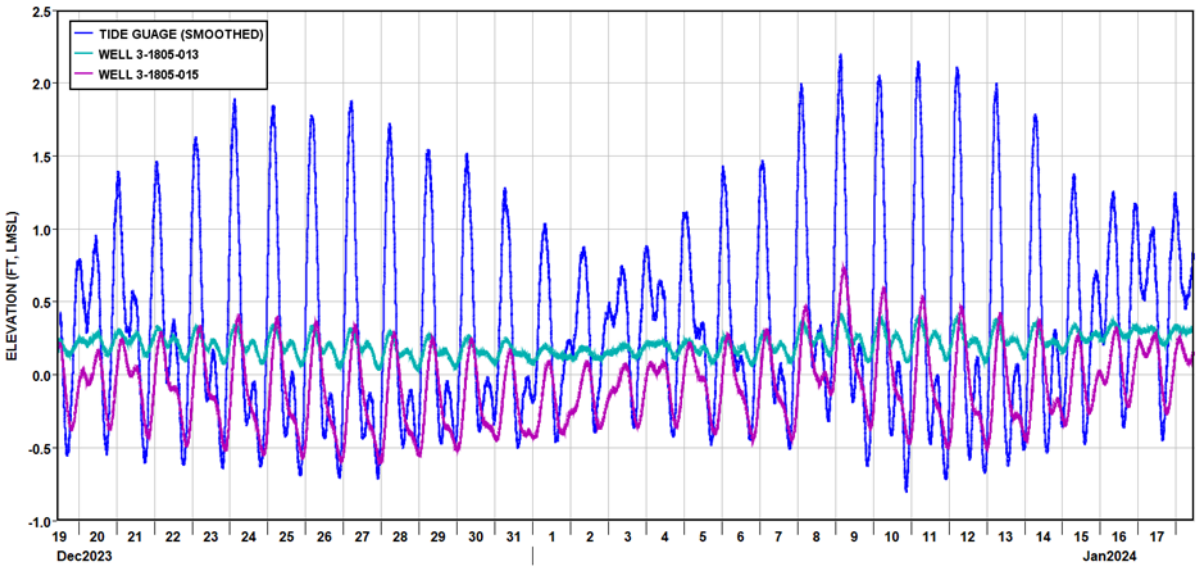


Figure 2. Water levels in the deep aquifer along with the tidal levels. Note: The green line shows Well 13 water levels, the pink line shows Well 15 water levels, and the blue line shows tidal water levels in the adjacent canal. Well 15 water levels track similar to tidal gauge measurements indicating a potential hydraulic connection to the upper caprock aquifer. Well 13 water levels are consistent with groundwater that is not in connection with the upper caprock aquifer.

2 Review of Available Information

2.1 Well Construction Information

A copy of the well construction report for Well 13 is included in Appendix A. Well 13 was drilled by Water Resources International Inc. and was completed in February of 2002 (CWRM, 2002). The well construction report notes the drilling method as conventional air rotary from 0 to 833 feet (ft) below ground surface (bgs) and reverse air rotary from 837 ft bgs to total depth (TD) at 1,600 ft bgs. The well construction report indicates that the well is constructed with Schedule 80 PVC casing, 20 inches nominal diameter from 0 to 1,100 ft bgs. Beyond the PVC casing is open hole, 18 inches nominal diameter from 1,100 to 1,600 ft bgs. **Figure 3** shows a schematic design of Well 13 based on information contained in the well construction report and field observations.

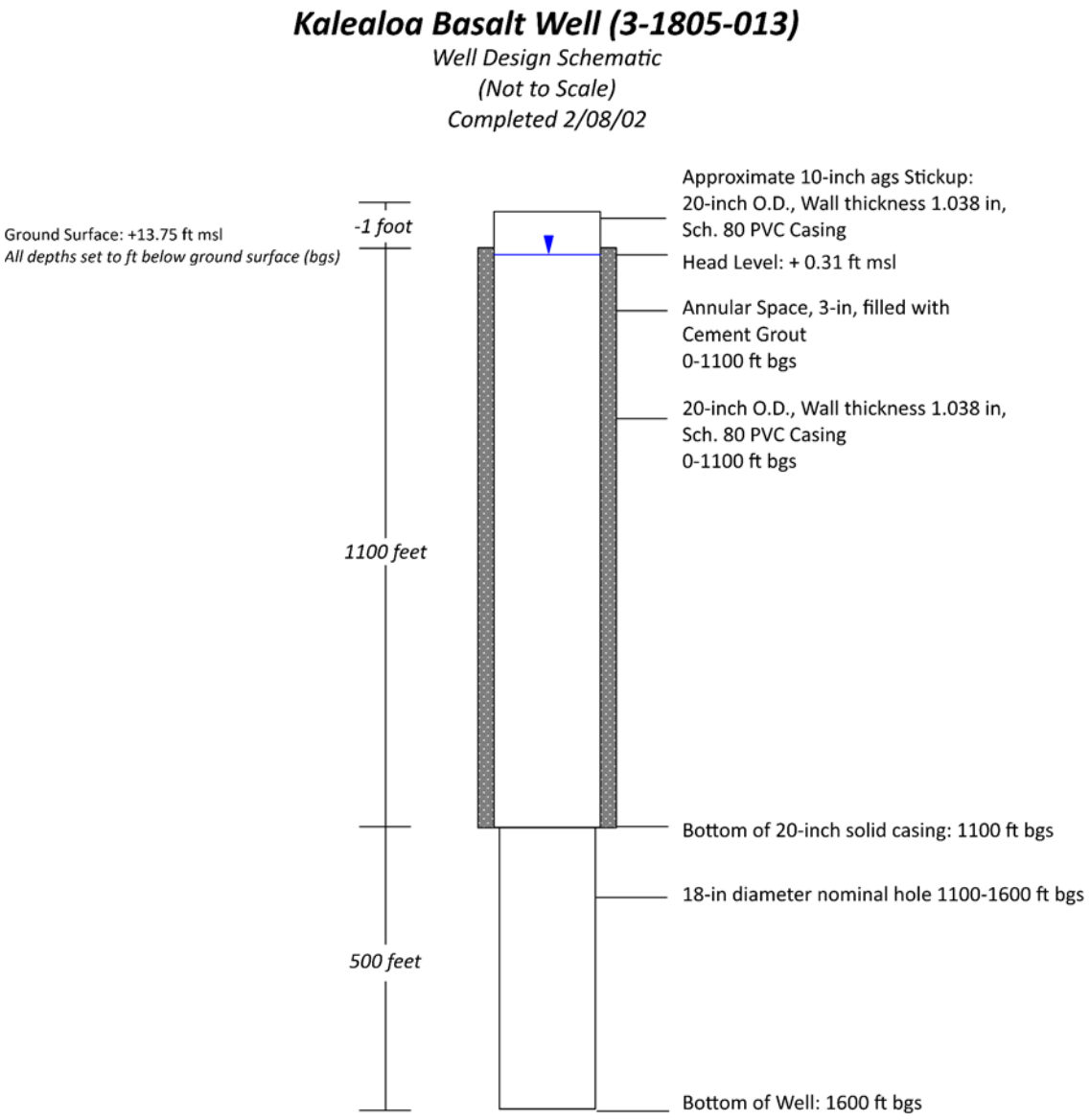


Figure 3. Well 13 design schematic. Note: Head measurement collected on 1/18/2024.

2.2 June 2024 Video Inspection

On June 24, 2024, a down hole video survey was conducted in Well 13 by Hawaii Drilling and Pump Service LLC (HDPS). The video survey was conducted as part of a preliminary inspection to visually evaluate the interior condition of the Well 13 PVC casing and joints to identify any areas of potential leakage (i.e. joint failures, cracks/holes, etc.). Prior to performing the video survey, the onsite contractor Kalaeloa Desalco LLC (KD) had removed a temporary pilot study well pump from Well 13. As such, the upper portion of the well column (i.e. 0 to 300 ft bgs) was observed to be quite turbid. Water clarity progressively improved beyond the 300 ft depth. Based on the video survey, the bottom of PVC casing was tagged at 1,106 ft bgs.

Overall, the condition of Well 13 appeared to be in fair to good condition. No obvious indications of holes in the PVC casing were readily visible and no indications of incoming flow, such as air bubbles, cascading water, or particle movement were detected. Several joints near the upper portion of the well (0 to 600 ft bgs) show either mineral precipitation or lime scaling. Some indication of biological growth/biofouling was suspected at some joints. The inside surface of the casing between the joints does not show indications of biofouling, precipitate or limescale. These phenomena occur only at the joints. A 20 ft PVC pipe (approximately 2 inches diameter) was observed at the bottom of the well (1,600 ft bgs). It is suspected that the pipe had fallen downhole during construction.

2.2 Borehole Geophysical Logging Program

Colog Inc., (Golden, CO) was contracted by INTERA to perform a borehole geophysical logging program to evaluate the casing and joints and annular space integrity of both Wells 13 and 15. The borehole geophysical logging scope of work was performed by Colog between June 25th and 30th, 2024. A description of the borehole logging tools, methodologies, description of geophysical method and results are summarized in their comprehensive report (INTERA, 2024). A brief description of the geophysical technique of each borehole tool used on Well 13 and the logging analysis results are provided below.

Full Waveform Sonic/Cement Casing Bond Log: This logging tool uses sound wave propagation to measure the coupling between casing and cement in a fluid filled borehole (Sterritt, R.J., 2007). The CBL will measure the response in the full circumference of the borehole. The CBL tool can be used in PVC cased wells, as the velocity of the PVC casing is slower than cement grout. A faster signal arrival would indicate that presence of grout. A faster signal arrival would indicate the presence of grout.

Acoustic Televiewer: The acoustic televiewer tool produces high-resolution images of the casing and borehole wall through the use of a rotating high frequency transducer which produces acoustic amplitude and time images (Sterritt, R.J., 2007). The resulting images can be displayed in 0 to 360 degrees on a horizontal axis. The acoustic televiewer can provide detailed images of the casing (possibly detecting cracks, pits, etc.) and borehole wall and can also detect if steel (i.e. centralizers, bolts, etc.) is present in the annular space.

Borehole EM Dynamic Flowmeter: This tool uses electromagnetic (EM) induction to measure fluid flow rates, fluid conductivity and temperature (Appendix C). The lower flow rate resolution of this tool is 0.01 gpm, and therefore under static conditions small leaks within the PVC casing can possibly be detected.

Gyro Inclinometer: This tool essentially uses a magnetometer, accelerometer and a gyro to continuously measure the deviation of the borehole (Sterritt, R.J., 2007). The results of this log will determine the orientation and inclination of the borehole, which will be useful information to further assess annular

space grout seal and provide useful information if installing new casing or relining existing casing is needed

- The gyro deviation survey on Well 13 indicates a final well/borehole deviation with an offset of 2.07 ft south and 1.78 ft west, which is relatively close to vertical. Well/borehole did not exceed one degree.
- Analysis of the full waveform sonic plot for Well 13 shows casing joints at every 19 ft. The waveforms are relatively consistent from 32 to 125 ft, suggesting a uniform annulus. There is noticeable variation from 125 to 525 ft, then consistency from 525 to 627 ft, 699 to 753 ft, and 1084 to 199 ft. Other intervals show variability that suggest changes in the casing, grout, or formation, and possibly slight changes in the borehole diameter behind the casing.
- The acoustic televiewer images were created from both the inner surface of the PVC casing and the annular grout. slight anomalies are seen throughout which appear to be related to PVC coupling, PVC manufacturing, or slight changes in grout composition. There were also pairs of anomalies centered at 1088.8 ft and 1095.5 ft bgs, which are likely associated with cement baskets on the outside of the PVC casing. The acoustic televiewer images did not indicate any cracks, holes or breeches in the PVC casing.
- Review of the cement casing bond log for Well 13 shows long stretches of high-quality grout, particularly from 34-129, 205-230, 524-627, 685-753, 823-868, and 953-989 ft bgs. The data shows no vertical channel observed in the annulus, and therefore no conduit for flow to vertically migrate from caprock into basalt aquifer.
- EM flowmeter results for Well 13 indicated no flow in either the casing or in the open borehole.

3 Well 13 Conclusions

INTERA's review of the June 2024 video inspection and Colog's geophysical logging data indicates that there are no indications of problems with the hydraulic integrity of Well 13. The data suggests that Well 13 casing and/or annulus does not appear to be leaking and is not in connection with the caprock aquifer. As such, no repair work or further investigation is anticipated or recommended for Well 13.

4 References

Commission on Water Resource Management (CWRM), 2002. Well Completion Report, State Well No. 1805-13. Kalaeloa Desalination Exploratory Well.

INTERA Inc., 2024. Kalaeloa Well Completion Evaluation, letter report prepared by Colog, Inc., and submitted to INTERA, Inc., dated 7-26-24, 284 p.

Sterrett, R., J., 2007: Groundwater and Wells, 3rd Edition, Johnson Screens, St. Paul, MN., 812 p

Appendix A

Well 13 Well Construction Report

State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL COMPLETION REPORT - PART I
Well Construction

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at **587-0225**. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cwrm/

For Official Use Only:

RECEIVED

02 MAY 8 A11 : 31

COMMISSION ON WATER RESOURCE MANAGEMENT

1. State Well No.: 1805-13 Well Name: Kalaeloa Desalination Plant Basalt Exploratory Well Island: Oahu
2. Address: End of Olai Street, Kapolei Tax Map Key: 9-1-031:028
3. Drilling Company: Water Resources International, Inc.
4. Drilling method used during contruction: XX Rotary ☐ Percussion ☐ Other (describe)
5. Date Well Construction (drilled,cased,grouted) completed: 2/08/02 (month/day/year) **Attach Driller's Log (*7/26/99 DL Form*)**

   In addition to the driller's log, if a geologic log was prepared, please submit with this form.
6. Was the subject well cored? ☐ Yes ☒ No
7. Initial water-level encountered 13.09 ft. below ground Date and time of measurement: 7/26/01 (month/day/year time)
8. Step-Drawdown Test completed? ☐ No ☒ Yes **Attach Step-Drawdown Test form (*12/17/97 SDPTD Form*)**
9. Constant Rate Aquifer Test completed? ☐ No ☒ Yes **Attach Constant Rate Aquifer Test form (*12/17/97 CRPTD Form*)**

Parameters prior to pump test:

10. Water-level: .69 ft. above msl Date and time of measurement: 2/27/02 9:10 AM (month/day/year time)
11. Chloride: 19,250 ppm Date and time of sampling: 3/01/02 9:13 AM (month/day/year time)
12. Temperature: 58.64 °F Date and time of measurement: 3/01/02 9:13 AM (month/day/year time)
13. **Fill in the as-built section on the other side of this sheet.**
14. Attach plot plan and surveyor's stamped elevation report.
15. If a pump is not planned to be installed, please describe (below in the remarks section) how well is secured to prevent unauthorized access (example: lockable cover, threaded coupling, etc.)
16. Remarks: Lockable cover

Licensed Driller (print) Blaise Clay C-57 Lic. No. AC 05058

Signature Blaise Clay Date April 12, 2002

Surveyor (print) _____ L.P.L.S. Lic. No. _____

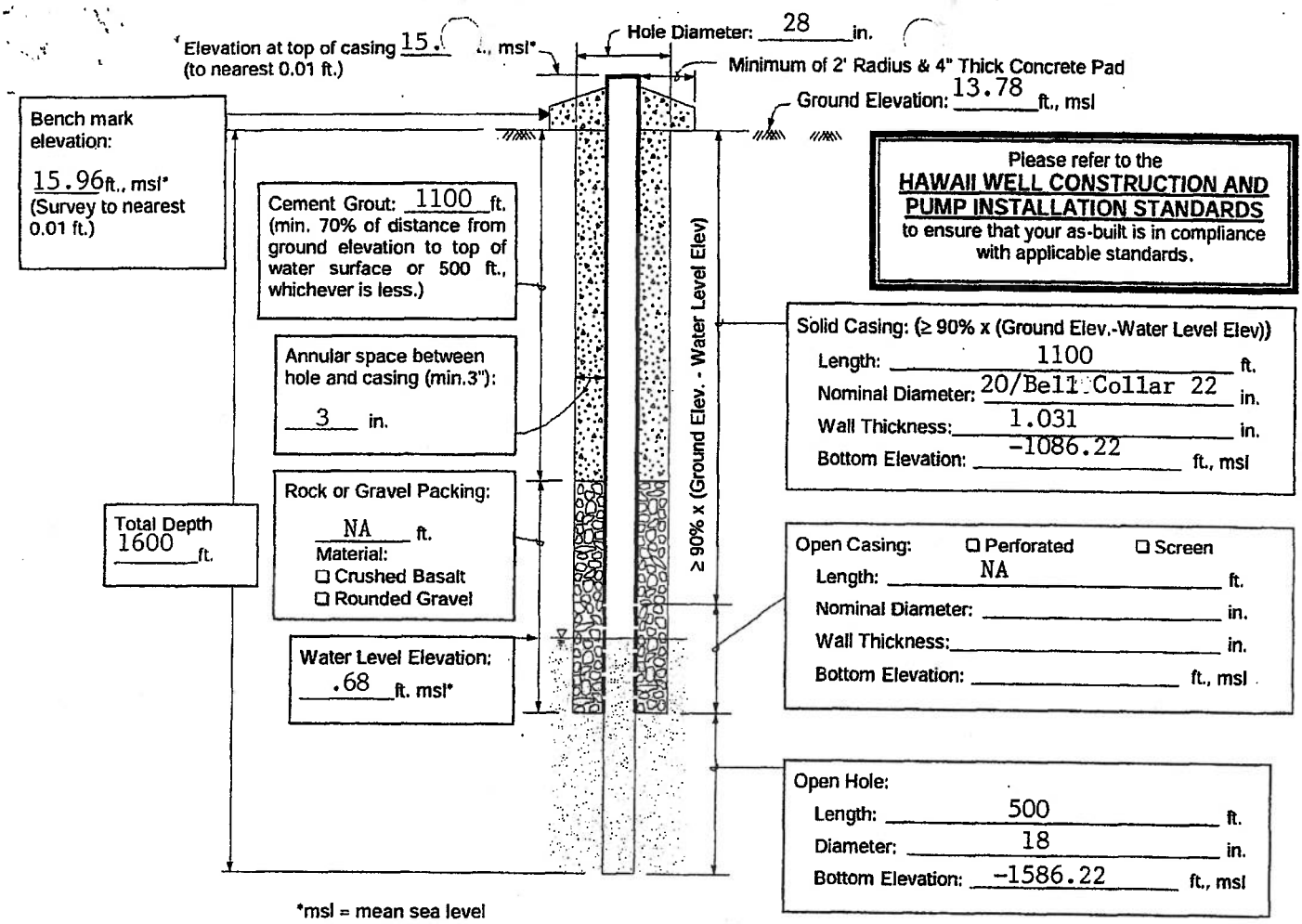
please attach stamped report

Signature _____ Date _____

Permittee (print) Board of Water Supply

Signature Barry Usagawa for CLIFFORD S. JAMIE, Manager and Chief Engineer Date MAY 02 2002

WCD1 Form 9/20/00



*msl = mean sea level

Solid Casing Material: 3-1805-13 KALAELOA BASALT

Carbon Steel: compliant with (*check one or more*): ☐ ANSI/AWWA C200 ☐ API Spec. 5L ☐ ASTM A53 ☐ ASTM A139
And compliant with (*check one or more*): ☐ ASTM A242 ☐ Type E ☐ Type S ☐ Grade B ☐ Other
Stainless Steel: (*check one*): ☐ ASTM A409 (production wells) ☐ ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F480 and ASTM D1527: (*check one*) ☐ Schedule 40 ☐ Schedule 80
PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (*check one*): ☐ Schedule 40 ☒ Schedule 80 ☐ Schedule 120
Thermoset Plastic: (*check one*)
☐ Filament Wound Resin Pipe conforming to ASTM D2996
☐ Centrifugally Cast Resin Pipe conforming to ASTM D2997
☐ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
☐ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
☐ PTFE Fluorocarbon Tubing conforming to ASTM D3296
☐ FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material: NA

Carbon Steel: compliant with (*check one or more*): ☐ ANSI/AWWA C200 ☐ API Spec. 5L ☐ ASTM A53 ☐ ASTM A139
And compliant with (*check one or more*): ☐ ASTM A242 ☐ Type E ☐ Type S ☐ Grade B ☐ Other
Stainless Steel: (*check one*): ☐ ASTM A409 (production wells) ☐ ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F480 and ASTM D1527: (*check one*) ☐ Schedule 40 ☐ Schedule 80
PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (*check one*): ☐ Schedule 40 ☐ Schedule 80 ☐ Schedule 120
Thermoset Plastic: (*check one*)
☐ Filament Wound Resin Pipe conforming to ASTM D2996
☐ Centrifugally Cast Resin Pipe conforming to ASTM D2997
☐ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
☐ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
☐ PTFE Fluorocarbon Tubing conforming to ASTM D3296
☐ FEP Fluorocarbon Tubing conforming to ASTM D3296

KAMAEWA DPBE WE

WELL NUMBER: 001B

DRILLER'S LOG (7/26/99 DL Form)

Depths (ft.)	Rock Description, Water Level, etc.	Dates
0 to 35'	CORAL (36" COND HOLE)	7-25-01
35' to 43'	" " "	7-26-01
43' to 47'	26" HOLE / CORAL	8-2-01
47' to 64'	CORAL	8-3-01
64' to 137'	"	8-6-01
137' to 218'	"	8-7-01
218' to 296'	"	8-8-01
296' to 383'	" SOFT	8-9-01
383' to 396'	" "	8-10-01
396' to 441'	" SOFT	8-15-01
441' to 441'	MED / CORAL MIX	8-16-01
441' to 501'	CORAL / SOFT	8-20-01
501' to 519'	CORAL MIX / MED	8-21-01
519' to 560'	" " / M/S	8-22-01
560' to 615'	" " / "	8-23-01
615' to 656'	" " / "	8-24-01
656' to 695'	" " / M/S	8-27-01
695' to 744'	" " / "	8-28-01
744' to 779'	CORAL MIX / M/S	8-29-01
779' to 815'	" " / SOFT	8-30-01
815' to 837'	" " / M/S	8-31-01
837' to 888'	(18" HOLE) CORAL / M	10-22-01
888' to 945'	" MIX / M/S	10-23-01
945' to 982'	" " / M/S	10-24-01
982' to 1022'	" " / M/S	10-25-01
1022' to 1044'	" BLK / M	10-26-01
1044' to 1060'	BLK / M/H	10-30-01
1060' to 1067'	BLK / "	10-31-01
1067' to 1091'	" / HARD	11-5-01
1091' to 1103'	BLK / "	11-6-01
1103' to 1123'	" / "	11-7-01
1123' to 1154'	" / "	11-8-01
1154' to 1166'	" / HARD	11-9-01
1166' to 1178'	" / "	11-13-01
1178' to 1206'	" / "	11-14-01
1206' to 1223'	" / HARD	11-15-01

Remarks: CONVENTIONAL AIR DRILL TO 837'
REVERSE AIR DRILL FROM 837' TO TD.

S - SOFT
M - MED
H - HARD
S/H - SUPER HARD

CONT' KALAELOA DPBE

WELL NUMBER: 001B

DRILLER'S LOG (7/26/99 DL Form)

Depths (ft.)	Rock Description, Water Level, etc.	Dates	Depths (ft.)	Rock Description, Water Level, etc.	Dates
1233' to 1250'	BLACK MIX / HARD	11-16-01	to		
1250' to 1271'	" " / M/H	11-19-01	to		
1271' to 1296'	" " / HARD	11-20-01	to		
1296' to 1308'	" " / SUPER HARD	11-21-01	to		
1308' to 1321'	" " / M	11-26-01	to		
1321' to 1361'	" " / HARD	11-27-01	to		
1361' to 1400'	" " / HARD	11-28-01	to		
1400' to 1435'	" / HARD	11-29-01	to		
1435' to 1465'	BLK MIX / HARD	11-30-01	to		
1465' to 1490'	" " / MED HARD	12-3-01	to		
1490' to 1507'	" " / " "	12-4-01	to		
1507' to 1530'	" " / HARD	12-5-01	to		
1530' to 1535'	" " / HARD	12-6-01	to		
1535' to 1537'	" " / HARD	1-3-02	to		
1537' to 1552'	" " / HARD	1-4-02	to		
1552' to 1570'	" " / HARD	1-7-02	to		
1570' to 1584'	" " / "	1-8-02	to		
1584' to 1610'	" " / HARD	1-9-02	to		

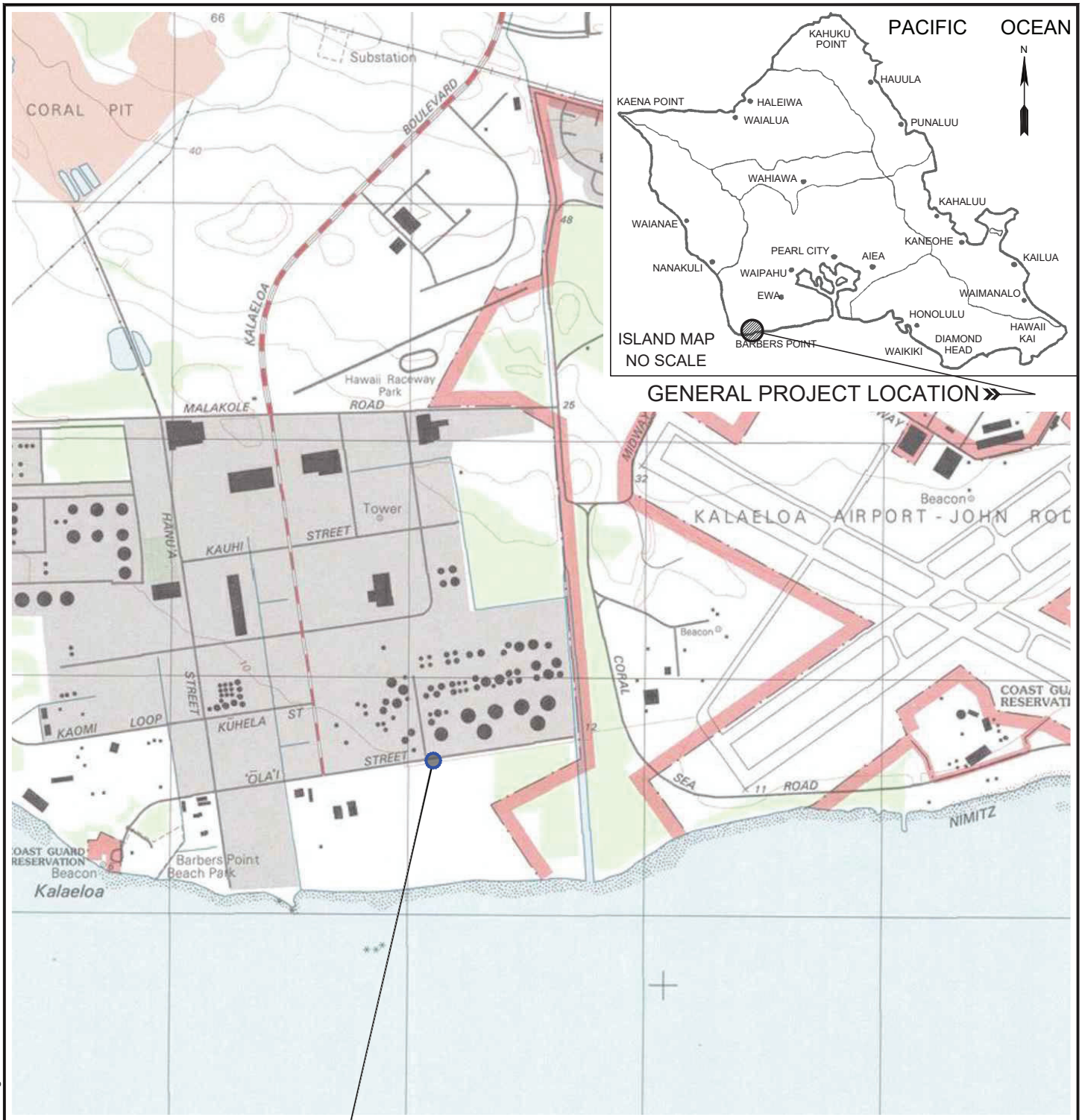
Remarks: TD @ 1610 KB

DRILLER: KIKEI A. AKUNA

APPENDIX C

Borehole Lithology Log from GeoLabs, Inc.

Geotechnical Engineering Exploration Report



PROJECT LOCATION MAP

KALAELOA SEAWATER DESALINATION FACILITY
UIC TEST WELL
KALAELOA, OAHU, HAWAII

2000 1000 0 2000 FT.

GRAPHIC SCALE

N

REFERENCE: MAP CREATED WITH TOPO!® ©2010 NATIONAL GEOGRAPHIC; ©2007 TELE ATLAS, REL. 1/2007.

GEOLABS, INC. Geotechnical Engineering		
DATE JANUARY 2025	DRAWN BY HYC	PLATE 1
SCALE 1" = 2,000'	W.O. 8450-60	

CAD User: HENRY File Last Updated: January 07, 2025 5:37:34pm Plot Date: February 24, 2025 - 4:30:23pm
File: B:\Drafting\Drafting\Working\8450-60_Kalaeloa_Seawater_Desalination_Facility\8450-60PLM.dwg\1
Plotter: DWG To PDF-GEO.pc3 Plotstyle: GEO-No-Dithering-Blue-Boring.ctb

CAD User: HENRY File Last Updated: February 24, 2025 4:28:24pm Plot Date: February 24, 2025 - 4:29:27pm
File: B:\Drafting\Drafting\Working\8450-60_Kalaeloa_Seawater_Desalination_Facility\8450-60SitePlan.dwg\2
Plotter: DWG To PDF.pc3 Plotstyle: GEO-No-Dithering-Blue-Boring.ctb

SITE PLAN

KALAELOA SEAWATER DESALINATION FACILITY
UIC TEST WELL
KALAELOA, OAHU, HAWAII

LEGEND:

APPROXIMATE BORING LOCATION

REFERENCE: GOOGLE EARTH™ PRO.
©2025 GOOGLE, INC. IMAGE ©2024 AIRBUS.
IMAGERY DATED NOVEMBER 26, 2022.

0 50 100 200 300 FT.
GRAPHIC SCALE

N

GEOLABS, INC.
Geotechnical Engineering

DATE	DRAWN BY	PLATE
JANUARY 2025	HYC	2
SCALE	W.O.	
1" = 100'	8450-60	

GEOLABS, INC.

Geotechnical Engineering

Rock Log Legend

ROCK DESCRIPTIONS

	BASALT		**CONGLOMERATE**
	BOULDERS		**LIMESTONE**
	BRECCIA		**SANDSTONE**
	CLINKER		**SILTSTONE**
	COBBLES		**TUFF**
	CORAL		**VOID/CAVITY**

ROCK DESCRIPTION SYSTEM

ROCK FRACTURE CHARACTERISTICS

The following terms describe general fracture spacing of a rock:

Massive: Greater than 24 inches apart

Slightly Fractured: 12 to 24 inches apart

Moderately Fractured: 6 to 12 inches apart

Closely Fractured: 3 to 6 inches apart

Severely Fractured: Less than 3 inches apart

DEGREE OF WEATHERING

The following terms describe the chemical weathering of a rock:

Unweathered: Rock shows no sign of discoloration or loss of strength.

Slightly Weathered: Slight discoloration inwards from open fractures.

Moderately Weathered: Discoloration throughout and noticeably weakened though not able to break by hand.

Highly Weathered: Most minerals decomposed with some corestones present in residual soil mass. Can be broken by hand.

Extremely Weathered: Saprolite. Mineral residue completely decomposed to soil but fabric and structure preserved.

HARDNESS

The following terms describe the resistance of a rock to indentation or scratching:

Very Hard: Specimen breaks with difficulty after several "pinging" hammer blows.
Example: Dense, fine grain volcanic rock

Hard: Specimen breaks with some difficulty after several hammer blows.
Example: Vesicular, vugular, coarse-grained rock

Medium Hard: Specimen can be broked by one hammer blow. Cannot be scraped by knife. SPT may penetrate by ~25 blows per inch with bounce.
Example: Porous rock such as clinker, cinder, and coral reef

Soft: Can be indented by one hammer blow. Can be scraped or peeled by knife. SPT can penetrate by ~100 blows per foot.
Example: Weathered rock, chalk-like coral reef

Very Soft: Crumbles under hammer blow. Can be peeled and carved by knife. Can be indented by finger pressure.
Example: Saprolite

LOG LEGEND FOR ROCK 8450-60.GPJ GEOLABS.GDT 1/21/25

GEOLABS, INC. Geotechnical Engineering	KALAELOA SEAWATER DESALINATION FACILITY UIC TEST WELL KALAELOA, OAHU, HAWAII	Log of Boring W-1

Approximate Ground Surface Elevation (feet): 10.9 *

Laboratory: Other Tests	Laboratory: Moisture Content (%)	Laboratory: Dry Density (pcf)	Field: Core Recovery (%)	Field: RQD (%)	Field: Penetration Resistance (blows/foot)	Field: Pocket Pen. (tsf)	Depth (feet)	USCS	Description
					18			SW	Grayish tan **GRAVELLY SAND (CORALLINE)** with some silt, medium dense to dense, moist (fill)
					25/5"				
					13		5		grades to loose
					37/3"		10		Light gray and white **CORAL**, moderately fractured, slightly to moderately weathered, medium hard to hard (coral formation)
					66		15		
Sieve - #200 = 7.7%	15		38	0	15		20	GW-GM	Grayish white **SANDY GRAVEL (CORALLINE)** with a little silt and cobbles, medium dense (coralline detritus)
			60	21	13		25		White **CORAL**, moderately fractured, unweathered, hard to very hard (coral formation)
			43	0	6		30	SM	Gray and white **SILTY SAND (CORALLINE)** with some gravel and a little cobbles, loose (coralline detritus)
							35		

Date Started:	December 17, 2024	Water Level:	9.5 ft. 12/17/2024 1425 HRS
Date Completed:	December 27, 2024		9.0 ft. 12/27/2024 0901 HRS
Logged By:	Maxwell Kimball	Drill Rig:	CME-55DG
Total Depth:	300.25 feet	Drilling Method:	4" Solid-Stem Auger & HQ Coring
Work Order:	8450-60	Driving Energy:	140 lb. wt., 30 in. drop

Plate

A - 1.1

GEOLABS, INC. Geotechnical Engineering	KALAELOA SEAWATER DESALINATION FACILITY UIC TEST WELL KALAELOA, OAHU, HAWAII	Log of Boring W-1

Laboratory			Field								
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
					20						(Continued from previous plate) Gray **LIMESTONE**, moderately to closely fractured, slightly weathered, hard to very hard (coralline limestone)
			79	10							White **LIMESTONE**, moderately to closely fractured, slightly to moderately weathered, hard to very hard (coralline limestone)
					18/6" +25/3"		40				
			44	0							
					12		45				grades with medium dense sandy gravel pockets locally
			24	0							
					24		50				
			71	24							
					21		55				grades to pinkish white color
			43	0							
										SM	Tan **SILTY SAND (CORALLINE)** with a little sandstone gravel, dense (weathered sandstone)
					39		60				
			24	10							
											Tan and White **SANDSTONE**, closely fractured, moderately to highly weathered, medium hard (coralline sandstone)
					25		65			SM	
			7	0							Tan with some white **SILTY SAND (CORALLINE)** with some gravel, medium dense (coralline detritus)
							70				

Date Started:	December 17, 2024	Water Level:	9.5 ft. 12/17/2024 1425 HRS 9.0 ft. 12/27/2024 0901 HRS	Plate
Date Completed:	December 27, 2024			
Logged By:	Maxwell Kimball	Drill Rig:	CME-55DG	
Total Depth:	300.25 feet	Drilling Method:	4" Solid-Stem Auger & HQ Coring	A - 1.2
Work Order:	8450-60	Driving Energy:	140 lb. wt., 30 in. drop	

GEOLABS, INC. Geotechnical Engineering	KALAELOA SEAWATER DESALINATION FACILITY UIC TEST WELL KALAELOA, OAHU, HAWAII	Log of Boring W-1

Laboratory			Field								
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description (Continued from previous plate)
Sieve - #200 = 16.6%	18		12	0	9					GM	Light grayish white **SILTY GRAVEL (CORALLINE)** with some sand, loose (coralline detritus)
			29	0	30		75				grades to dense
			0	0	17		80			SM	White to light tan **SILTY SAND (CORALLINE)** with some gravel, medium dense (coralline detritus)
			0	0	12		85				grades with a little cobbles locally
Sieve - #200 = 21.4%	22		0	0	10		90				
			40	0	14		95				
			67	22	20		100				White **LIMESTONE**, closely to severely fractured, slightly to moderately weathered, medium hard to hard (coralline limestone)
							105				

Date Started:	December 17, 2024	Water Level: ▽ 9.5 ft. 12/17/2024 1425 HRS	Plate
Date Completed:	December 27, 2024	▽ 9.0 ft. 12/27/2024 0901 HRS	
Logged By:	Maxwell Kimball	Drill Rig: CME-55DG	
Total Depth:	300.25 feet	Drilling Method: 4" Solid-Stem Auger & HQ Coring	A - 1.3
Work Order:	8450-60	Driving Energy: 140 lb. wt., 30 in. drop	

GEOLABS, INC. Geotechnical Engineering	KALAELOA SEAWATER DESALINATION FACILITY UIC TEST WELL KALAELOA, OAHU, HAWAII	Log of Boring W-1

Laboratory			Field								
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	(Continued from previous plate) Description
			27	0							
										GW-GM	White to light tannish white **SANDY GRAVEL (CORALLINE)** with some cobbles and a little silt, medium dense (weathered coralline limestone)
					28		110				
			31								
			30				115				grades more silty
					16		120				
			0							ML	Reddish brown **CLAYEY SILT**, stiff (older alluvium)
					12		125				
			19								
					15		130				
			69								
			80				135				
							140			CH	Brown with trace white **SILTY CLAY** with traces of gravel (coralline), very stiff (older alluvium)

Date Started:	December 17, 2024	Water Level:	▽ 9.5 ft. 12/17/2024 1425 HRS ▽ 9.0 ft. 12/27/2024 0901 HRS	Plate
Date Completed:	December 27, 2024			
Logged By:	Maxwell Kimball	Drill Rig:	CME-55DG	
Total Depth:	300.25 feet	Drilling Method:	4" Solid-Stem Auger & HQ Coring	A - 1.4
Work Order:	8450-60	Driving Energy:	140 lb. wt., 30 in. drop	

GEOLABS, INC. Geotechnical Engineering	KALAELOA SEAWATER DESALINATION FACILITY UIC TEST WELL KALAELOA, OAHU, HAWAII	Log of Boring W-1

Laboratory			Field								
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	(Continued from previous plate) Description
			93	24	25/6" +15/2"					CH	
			17	0			145				White and brown **LIMESTONE**, moderately to closely fractured, slightly to moderately weathered, hard to very hard (coralline limestone)
Sieve - #200 = 22.4%	17		0		43		150			SM	Gray and white **SILTY SAND (CORALLINE)** with some gravel, dense (weathered coralline limestone)
			19		30		155				
Sieve - #200 = 33.3%	17		0		44		160			GM	Gray and white **SILTY GRAVEL** with some sand, dense (coralline limestone)
			49	8	25/3"		165				grades to very dense
			25	0			170				White **LIMESTONE**, closely to severely fractured, moderately to highly weathered, hard (coralline limestone)
							175				

Date Started:	December 17, 2024	Water Level: ▽ 9.5 ft. 12/17/2024 1425 HRS ▽ 9.0 ft. 12/27/2024 0901 HRS	Plate
Date Completed:	December 27, 2024		
Logged By:	Maxwell Kimball	Drill Rig: CME-55DG	
Total Depth:	300.25 feet	Drilling Method: 4" Solid-Stem Auger & HQ Coring	A - 1.5
Work Order:	8450-60	Driving Energy: 140 lb. wt., 30 in. drop	

GEOLABS, INC. Geotechnical Engineering	KALAELOA SEAWATER DESALINATION FACILITY UIC TEST WELL KALAELOA, OAHU, HAWAII	Log of Boring W-1

Laboratory			Field								
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	(Continued from previous plate) Description
					45						
			17	0							
										GM	White **SILTY GRAVEL (CORALLINE)** with some sand and a little cobbles, medium dense (coralline detritus)
Sieve - #200 = 13.0%	19				26		180				
			39								
			25				185				
					65		190				grades to very dense
			47	19							
			23	0			195				Light tannish white **LIMESTONE**, moderately fractured, slightly weathered, hard to very hard (coralline limestone)
										GW-GM	White **SANDY GRAVEL (CORALLINE)** with some cobbles and a little silt, dense to very dense (weathered coralline limestone)
			53	7	50/5"		200				
											White **LIMESTONE**, closely fractured, slightly to moderately weathered, hard to very hard (coralline limestone)
			20	0			205				
										SM	Light grayish white **SILTY SAND (CORALLINE)** with some gravel and a little cobbles, dense (weathered coralline limestone)
							210				

Date Started:	December 17, 2024	Water Level:	9.5 ft. 12/17/2024 1425 HRS 9.0 ft. 12/27/2024 0901 HRS	Plate
Date Completed:	December 27, 2024			
Logged By:	Maxwell Kimball	Drill Rig:	CME-55DG	
Total Depth:	300.25 feet	Drilling Method:	4" Solid-Stem Auger & HQ Coring	A - 1.6
Work Order:	8450-60	Driving Energy:	140 lb. wt., 30 in. drop	

GEOLABS, INC. Geotechnical Engineering	KALAELOA SEAWATER DESALINATION FACILITY UIC TEST WELL KALAELOA, OAHU, HAWAII	Log of Boring W-1

Laboratory			Field								
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
Sieve - #200 = 21.1%	16				47					SM	(Continued from previous plate)
			47								
			58				215				
					30		220				
			83								
			42	0			225				
											Light grayish white **LIMESTONE**, closely fractured, slightly to moderately weathered, hard (coralline limestone)
Sieve - #200 = 22.2%	23				19		230			SM	White **SILTY SAND (CORALLINE)** with some gravel, medium dense (coralline detritus)
			17								
					22		235				
			72	11							
											White **CORAL**, closely to severely fractured, moderately weathered, medium hard to hard (coral formation)
			33	0			240				
							245				

Date Started:	December 17, 2024	Water Level: ▽ 9.5 ft. 12/17/2024 1425 HRS ▽ 9.0 ft. 12/27/2024 0901 HRS	Plate
Date Completed:	December 27, 2024		
Logged By:	Maxwell Kimball	Drill Rig: CME-55DG	
Total Depth:	300.25 feet	Drilling Method: 4" Solid-Stem Auger & HQ Coring	A - 1.7
Work Order:	8450-60	Driving Energy: 140 lb. wt., 30 in. drop	

GEOLABS, INC. Geotechnical Engineering	KALAELOA SEAWATER DESALINATION FACILITY UIC TEST WELL KALAELOA, OAHU, HAWAII	Log of Boring W-1

Laboratory			Field								
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	(Continued from previous plate) Description
					35						
			0							SM	White **SILTY SAND (CORALLINE)** with traces of gravel, medium dense (weathered coralline sandstone)
Sieve - #200 = 17.9%	23				23		250				
			53	0							
			40	7			255				White to light tannish white **CORAL**, moderately to closely fractured, slightly to moderately weathered, medium hard to hard (coral formation)
					25		260				
			31	0							
					50/5"		265				grades with dense sandy gravel pockets locally
			37	8							
					85		270				
			83	22							
					54		275				
			14	0							
							280			SM	Light tannish white **SILTY SAND (CORALLINE)** with a little gravel, medium dense to dense (coralline detritus)

Date Started:	December 17, 2024	Water Level:	9.5 ft. 12/17/2024 1425 HRS 9.0 ft. 12/27/2024 0901 HRS	Plate
Date Completed:	December 27, 2024			
Logged By:	Maxwell Kimball	Drill Rig:	CME-55DG	
Total Depth:	300.25 feet	Drilling Method:	4" Solid-Stem Auger & HQ Coring	A - 1.8
Work Order:	8450-60	Driving Energy:	140 lb. wt., 30 in. drop	

GEOLABS, INC. Geotechnical Engineering	KALAELOA SEAWATER DESALINATION FACILITY UIC TEST WELL KALAELOA, OAHU, HAWAII	Log of Boring W-1

Laboratory			Field								
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
					26					SM	(Continued from previous plate)
			67								
Sieve - #200 = 23.7%	21				48		285				grades with cobbles (coralline) locally
			50								
					50		290				
			61	0							
					72		295				Light tannish white **CORAL**, closely to severely fractured, moderately weathered, medium hard to hard (coral formation)
			67	0							grades with dense silty sand and gravel pockets locally
					35/3"		300				Boring terminated at 300.25 feet * Elevation estimated from Topographic Survey Plan received on July 5, 2023.
							305				
							310				
							315				

Date Started:	December 17, 2024	Water Level: ▽ 9.5 ft. 12/17/2024 1425 HRS ▽ 9.0 ft. 12/27/2024 0901 HRS	Plate
Date Completed:	December 27, 2024		
Logged By:	Maxwell Kimball	Drill Rig: CME-55DG	
Total Depth:	300.25 feet	Drilling Method: 4" Solid-Stem Auger & HQ Coring	A - 1.9
Work Order:	8450-60	Driving Energy: 140 lb. wt., 30 in. drop	

KALAELOA SEAWATER DESALINATION FACILITY
UIC TEST WELL
KALAELOA, OAHU, HAWAII

W-1 20.0’ TO 110.0’

20.0’ **41.2’** **65.0’**

40.0’ **65.0’** **110.0’**

KALAELOA SEAWATER DESALINATION FACILITY
UIC TEST WELL
KALAELOA, OAHU, HAWAII

W-1 112.0’ TO 205.0’

112.0’ **140.0’** **177.0’**

140.0’ **175.0’** **205.0’**

KALAELOA SEAWATER DESALINATION FACILITY
UIC TEST WELL
KALAELOA, OAHU, HAWAII

W-1 205.0' TO 255.0'

205.0' **225.0'**

225.0'

255.0'

KALAELOA SEAWATER DESALINATION FACILITY
UIC TEST WELL
KALAELOA, OAHU, HAWAII

W-1 255.0’ TO 300.0’

255.0’ **285.0’**

285.0’ **300.0’**

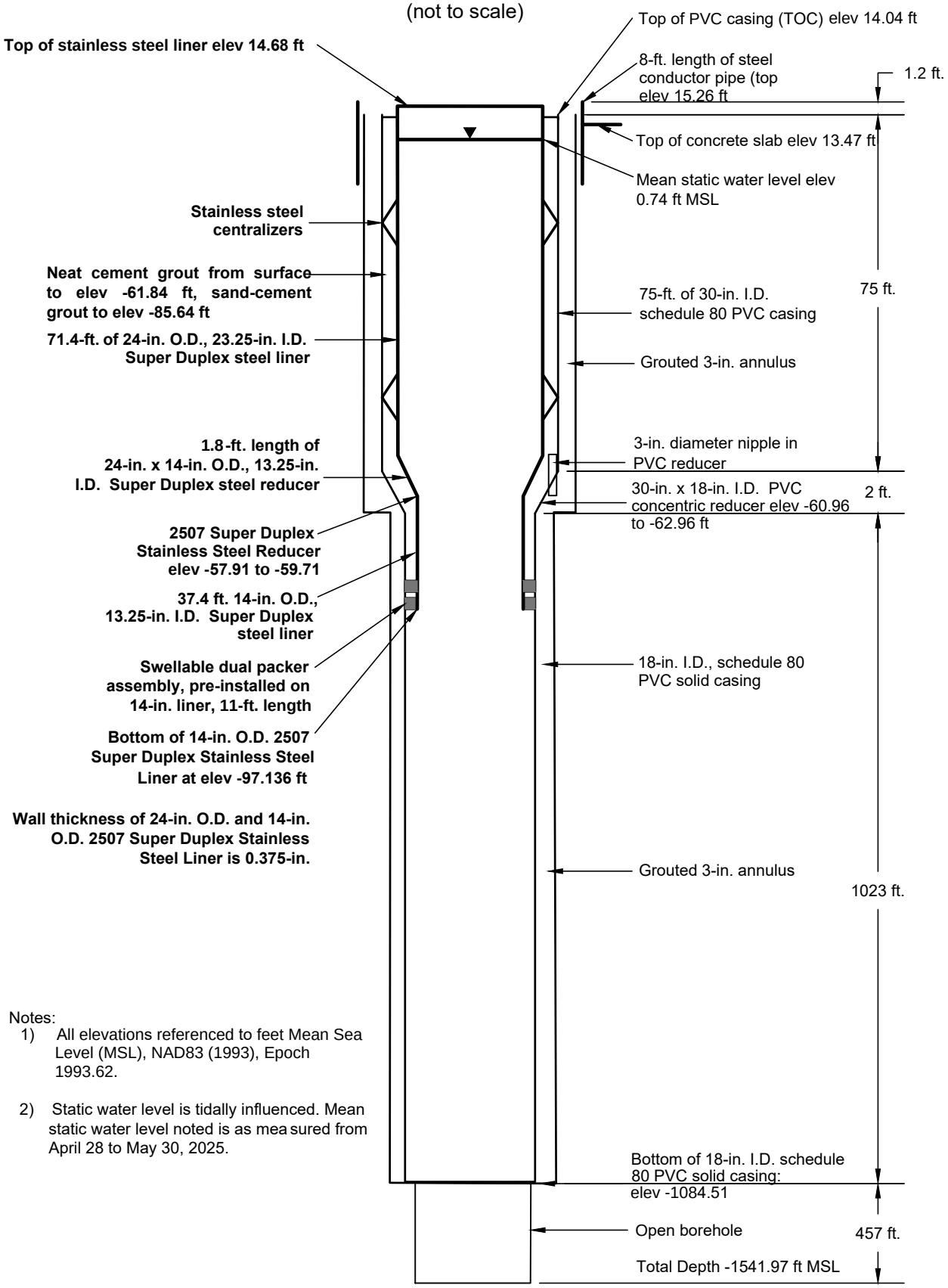
APPENDIX D

Well 15 Final Schematic

KALAELOA BASALT WELL (3-1805-015)

Well Repair Schematic with Liner Installation

(not to scale)



Notes:

1) All elevations referenced to feet Mean Sea Level (MSL), NAD83 (1993), Epoch 1993.62.

2) Static water level is tidally influenced. Mean static water level noted is as measured from April 28 to May 30, 2025.

INTERA
74 KIHAPAI STREET
KAILUA, HAWAII 96734
808-382-6853

PROJECT: Kalaeloa Seawater Desalination Facility Kapolei, Oahu, Hawaii	DES BY	KG	SCALE: NOT TO SCALE
	DR BY	SDB	PROJ NO. LSBRG.C001.Kalaeloa_T17c
	CHK BY	KG	DWG NO. 001
SHEET TITLE: Well 15 (3-1805-015) Repair	APP BY	DFH	ATTACHMENT
	DATE ISSUED:	-	
	SHEET 1 OF 1		

APPENDIX E

RECONPetro Geophysical Logs

RECONpetro
www.reconpetro.com

5304 Big Six Street, Unit B, Alvarado, TX 76009

June 19, 2025

Intera Inc
Attn: Kevin Gooding
9600 Great Hills Trl, ste300W
Austin, TX 78759

Mr. Kevin Gooding

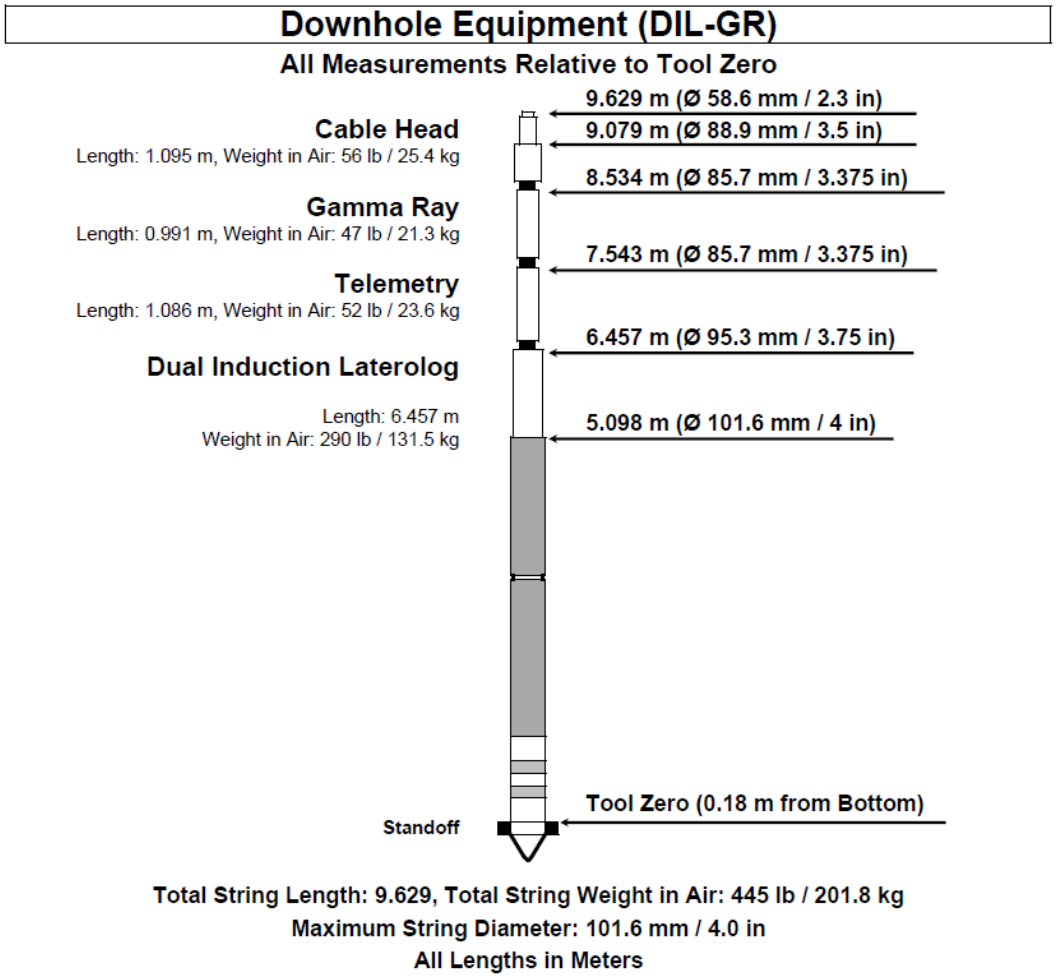
RE: Geophysical Well log Interpretation – Kalaeloa Basalt Wells #1805-15, #1805-14 & #1805-13

Intera Inc. hired RECON Petrotechnologies Inc. (RECONPetro) to perform geophysical well logging services on Oahu Island of Hawaii on May 23, 2025. The scope of work encompasses the acquisition of downhole geophysical data for three wells: Kalaeloa Basalt Well #1805-13, 14, and 15. RECONPetro utilizes the latest digital well logging technologies ***(see attachment for tool specs)*** that are applicable to large diameter wells. Tool string consists of 3-3/8" and 4" logging tools deployed on wireline units (see appendix A: Logging Equipment and Instruments). The logging program for each of the wells include Natural Gamma Ray and Dual Induction Resistivity measurements.

Gamma Ray measurements are used commonly in identifying formation and clay(mudstone). Gamma ray measurements can detect natural radioactive materials primarily Potassium, Uranium and Thorium. These materials are found naturally in rocks of varying proportions. Shales/Mudstones due to their compositions tend to contain much more of these elements than say sandstone or carbonates (limestone or dolomites). Gamma rays are measured in A.P.I units, shales/mudstones will tend to read higher API units than sandstone/carbonates. In addition to differentiating between shale/mudstone vs. "cleaner" reservoir rock such as sandstone/carbonates, gamma ray measurements are also used for depth or lithology correlations with nearby well offset data.

Resistivity measurements are useful in both geological correlation and pore fluid resistivity properties. For this project, RECON deploys the Dual Induction-LL3/SP device. The tool utilizes the concept of an induced electromagnetic field into the formations using high voltage transmitter coils; the resulting eddy currents formed in the formations can be measured at the receiver coils and the conductivity/resistivity of the formation is established. This tool will produce three curves: Deep Induction (RILD), Medium Induction (RILM) and a Laterolog/Shallow (LL3) measurement. Each of these measurements have a varying depth of investigation. The RILD is the furthest with 60 inches (5 ft) in the reservoir. The basic interpretation of the resistivity measurement for water wells is that clean potable water will exhibit a higher resistivity value than "saltier"/contaminated water. Shale/Mudstone will also have a known regional value as there will be some amount "fluid" bound in the pore space of the mud rock or shale. Another value-added measurement with the Resistivity is the Spontaneous Potential (SP) – this gives relative permeability indication of the reservoir strata.

Methodology in acquiring downhole data will include using a modern well logging unit (see appendix A) and conveying logging tools down each wellbore with multiconductor wireline cable. Once tools have reached total depth on each well, data will be recorded while the tool string is coming up the well at a nominal speed of 40 ft/minute. The length of the tool string is below:



Given the large diameter of the well originally drilled; the best combination of tools that can be utilized to obtain geophysical well data is Gamma Ray and Dual Induction. Porosity measurements such as Compensated Density or Compensated Neutron would be helpful; however, these tools have a wellbore limitation of 15 inches. Since our wellbore diameters are between 17.5-26 inch, we are outside the scope of functionality of the porosity tools.

Interpretation comments: In helping with the interpretation of the three wells, I have relied on the EWA Beach Test well T-133 for some reference and area lithology insights. The main objective of the interpretation is to identify zones of mudstone and sedimentary deposits (limestone, alluvium, etc…) and also the top of the basalt (volcanic rock). (see attached pdf logs #15, 14, 13)

Well 15:

Well 15 currently has 30" PVC casing set to 75 ft, a 30" to 18" reducer from 75-77 ft, and an 18" PVC casing from 77 to 1100 ft. Well 15 also has a steel liner installed in the upper portion of the well, to a depth of 110.6 ft. Behind this PVC casing is cement. Cement will suppress the values of the Gamma Rays; the gamma rays can be detected but the values are suppressed. Our logging software can make environmental corrections to the raw data to compensate for these variables such as cement and large diameter to some degree. Because we do not know the cement volume behind casing, there will be some data accuracy limitations within the region of the cased well. Another data limitation is the SP (Spontaneous Potential), the SP does not work when there is a barrier between "rock" and tool. Overall, the gamma ray response is sufficient to interpret the zones of mudstone and sedimentary deposits. The data in the open hole section below 1100ft, the measurement is accurate and shows clearly the areas of shales/mudstone vs. the cleaner basalt.

Refer to the PDF attached – Kalaeloa Basalt Well 1805-15, on the 5 inch/100 ft scale, for zones marked as mudstone and top of the basalt. Shaded yellow on track 1 (left) are areas that are considered mudstone/shale within the PVC casing are areas with 30 API or higher but can vary depending on strata above or below. Generally, I am looking for relatively higher API baseline throughout the "cased" section, but I am also looking at contrasting changes between of the Gamma API units as well. For example, on well 15, between 1030 ft to 1064, GR API is 45 and higher, but the strata below are 30 to 45, I identify this as non-mudstone because it is lower than the "mudstone" above. The resistivity measurements indicate that the sedimentary strata are generally filled with saltwater or brackish water.

In the Open Hole section of well 15, below 1100 ft, we have what I call a transition zone of mudstone/shales, sedimentary and volcanic rocks. Having a density tool would be helpful in further differentiating the lithology in this "mixed" zone; but the hole diameter limitations prevent us from getting this information. The top of the basalt is identified to be 1208 ft.

Well 14:

Well 14 currently has a 50ft of 17.4" PVC casing plus 250ft of 17.4" slotted liner. Behind this PVC casing is cement and behind the slotted liner is silica pea gravel. Gravel pack material is not as dense as cement as such minimal correction will be needed – reacts like an open hole. Another data limitation is the SP (Spontaneous Potential), the SP does not work when there is a barrier between "rock" and tool. Overall, the gamma ray response is sufficient to interpret the zones of mudstone and sedimentary deposits. This well is drilled only to 300 ft. No Open hole section was evaluated.

Refer to the PDF attached – Kalaeloa Basalt Well 1805-14, on the 5 inch/100 ft scale, for zones marked as mudstone. Since this slotted liner with gravel pack will not suppress GR readings as much as 15 & 13, we can identify mudstone interval with API of greater than 60 API. This is shown with a yellow shading on track 1 of the attached PDF log label Kalaeloa Basalt Well 1805-14.

Well 13:

Well 13 currently has 20" PVC casing set to a depth of 1100 ft. Behind this PVC casing is cement. Like well 15, Gamma ray will be suppressed. However, with logging software correction, we can sufficiently identify zones of mudstone and limestone. Again, like 15 and 14, SP will not work as there is a barrier between rock surface and tool.

Refer to PDF attached – Kalaeloa Basalt Well 1805-13, on the 5 inch/100 ft scale, for zones marked as mudstone. Well 13 uses the same interpretation approach as well 15. The top of the basalt in the open hole section is located approximately 1200 ft. There also exist a transition zone below casing from 1100 ft to 1200 ft.

Summary/Conclusion:

1. We find that in all three wells; there is a strong correlation between the lithology strata as well as the top of the basalt. Which is expected as the three wells are not far from each other.
2. Fairly consistent depth correlations of the mudstone interval on these wells as compared to the offset Test Well T-133.

Thank you for the opportunity in assisting with the wellbore data collection and interpretation for the Kalaeloa Basalt Project. The data collection and subsequent evaluation is consistent with industry standards; the interpretation of well logs are based on inferences from electrical or other readings as stated above. If you have any questions, please do not hesitate to contact our office at 682-628-4841.

Regards,

Andrew Nguyen

Chief Operating Officer/Log Analyst

Appendix A – Logging Unit and Instruments

Logging Unit:

Logging tools:

Dual Induction Tool

Gamma Ray

Company	INTERA INCORPORATED
Well	KALAELOA BASALT WELL #1805-13
Field	WATER WELL
Island	OAHU
State	HAWAII

RECON

DUAL INDUCTION
LATEROLOG - SP
GAMMA RAY

	SEC	TWP	RGE	

OTHER SERVICES:

Location. EASTERN END OF OLAI STREET
SURF. SAME API #. N/A

Permanent Datum .	Ground Level	Elevation:	13.78
Log Measured From .	Concrete Pad	Latitude:	21.299794
Drilling Measured From	Concrete Pad	Longitude:	-158.087928

ELEVATIONS PAD 15.96
G.L. 13.78
D.F. N/A

Date		22-MAY-2025				
Run No.		ONE				
TD Driller		1600	ft.		ft.	
TD RECON		1598	ft.		ft.	
Bot Logged Interval		1598	ft.		ft.	
Top Logged Interval		5	ft.		ft.	
Casing Depth Driller		20	in.	@ 1100	in.	@
Casing Depth RECON		20	in.	@ 1100	in.	@
Bit Size		17.5	in.		in.	
Drilling Fluid Type		N/A				
Density	Viscosity	N/A		N/A		
Fluid Loss	PH	N/A		N/A		
Source Of Sample		Flowline				
RM @ Measured Temp		0.20	Ohmm	@ 75°F	Ohmm	@
RMF @ Measured Temp		0.16	Ohmm	@ 75°F	Ohmm	@
RMC @ Measured Temp		0.24	Ohmm	@ 75°F	Ohmm	@
RM @ MRT		0.32	Ohmm	@ 58°F	Ohmm	@
Max Recorded Temp		80°F				
Time Drilling Stopped		N/A		N/A		
Time Circulation Stopped		N/A		N/A		
Time Logger On Bottom		22-MAY-2025		12:30		
Unit Num	Location	S701		ALVARADO, TX		
Recorded By		Kyle Ranallo				
Witnessed By		Eva Kakone				

All interpretations are based on inferences from electrical or other readings, and therefore, RECON cannot and will not guarantee the accuracy of any interpretations of log data. RECON shall not be liable for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from interpretations made by any of our officers, agents or employees, except in the case of provable Gross Neglegence or willfull damage. Interpretations are also subject to the terms and conditions of our Price Schedule and General Service Agreement.

RIG INFORMATION

Drill Contr/Rig# N/A

GENERAL REMARKS SECTION

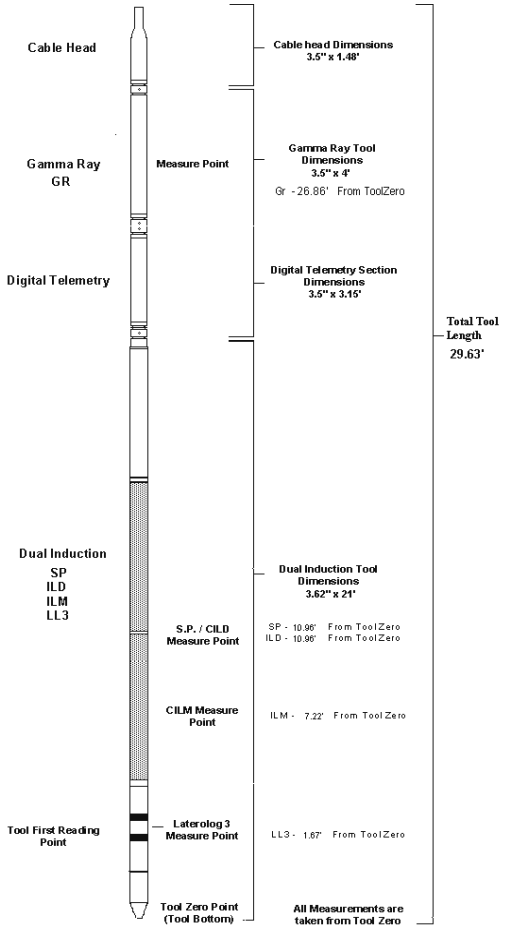
FIRST RUN IN THE HOLE

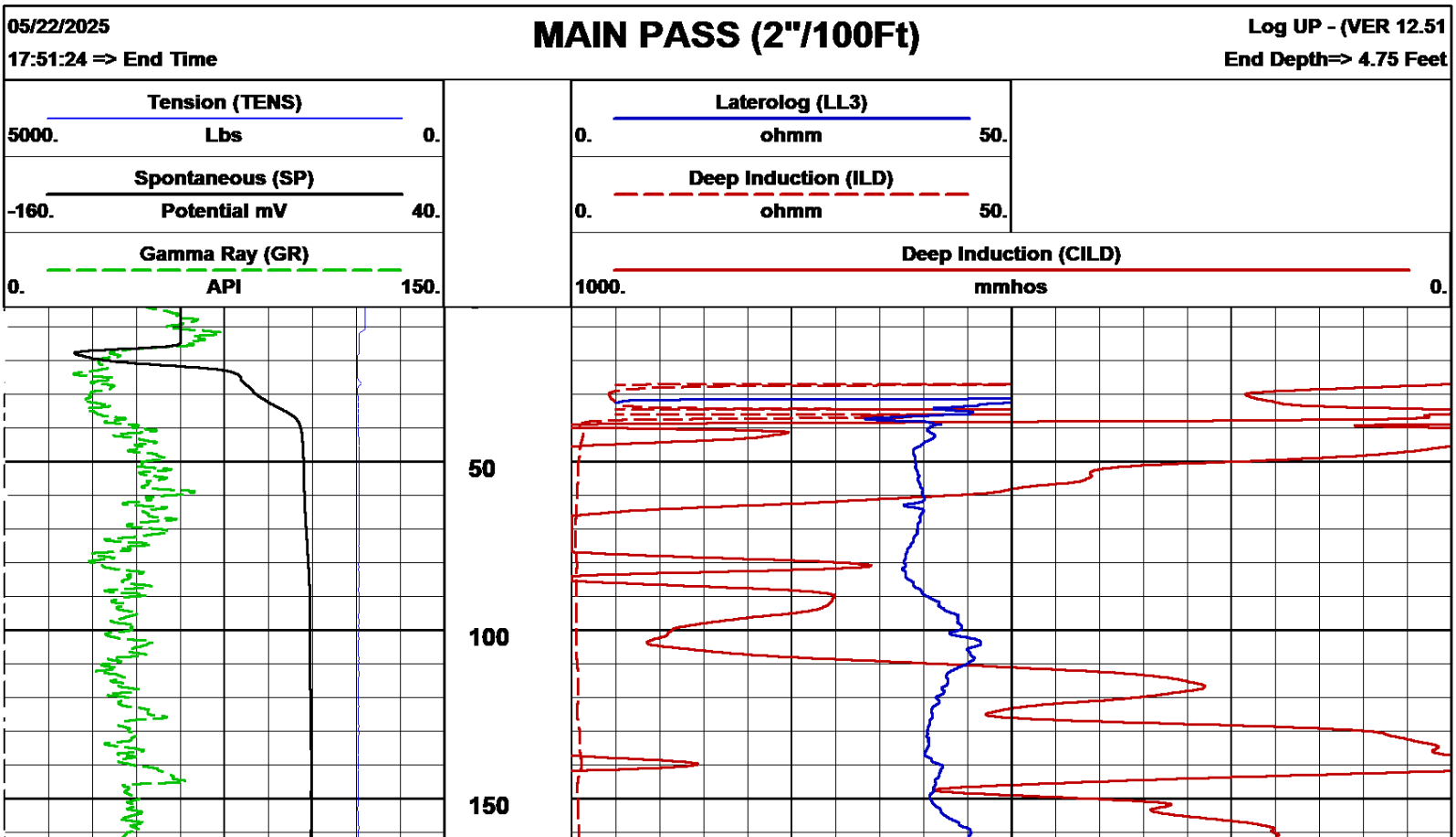
DISPATCH 24 HR: 682-628-4841

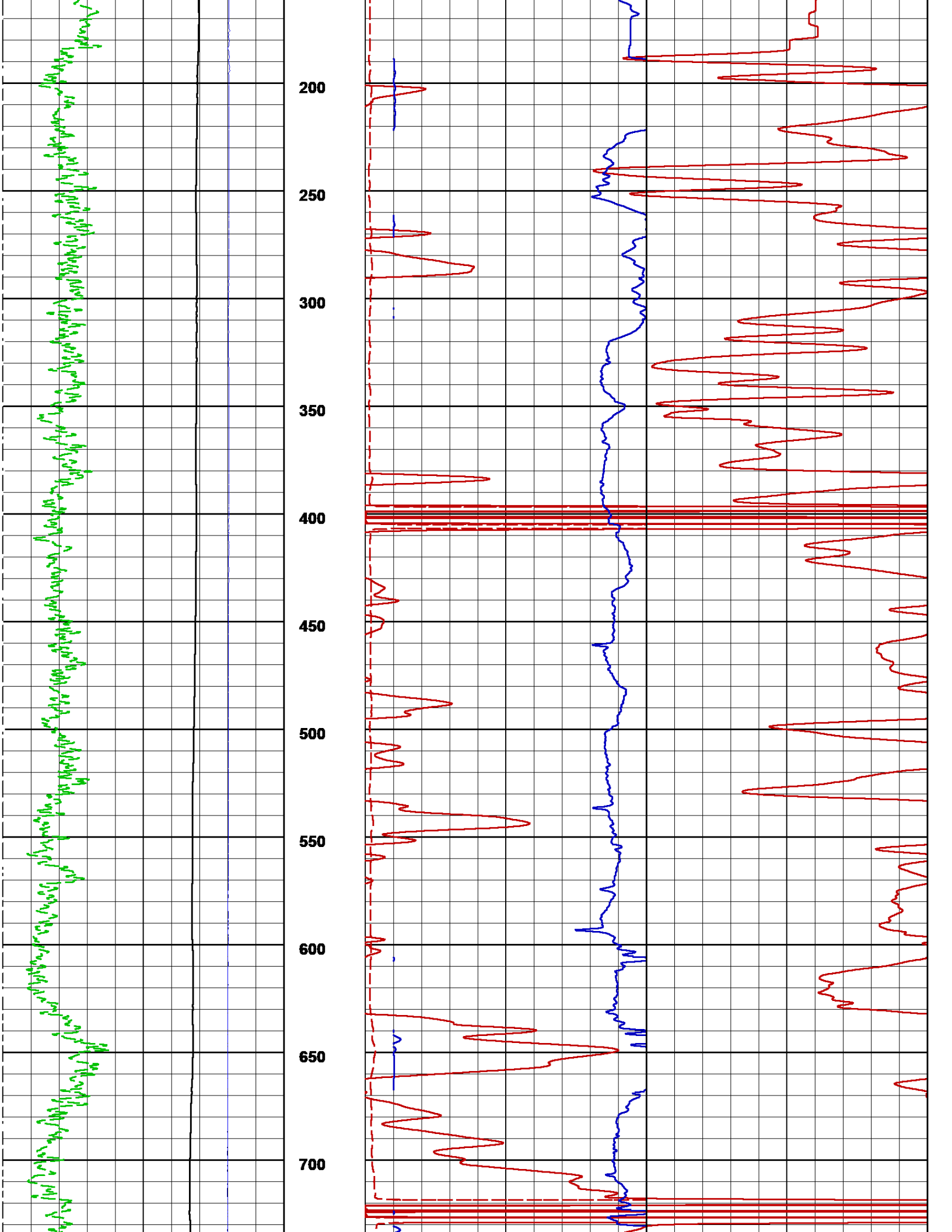
CREW: T.ORTEGA, M.PAGE

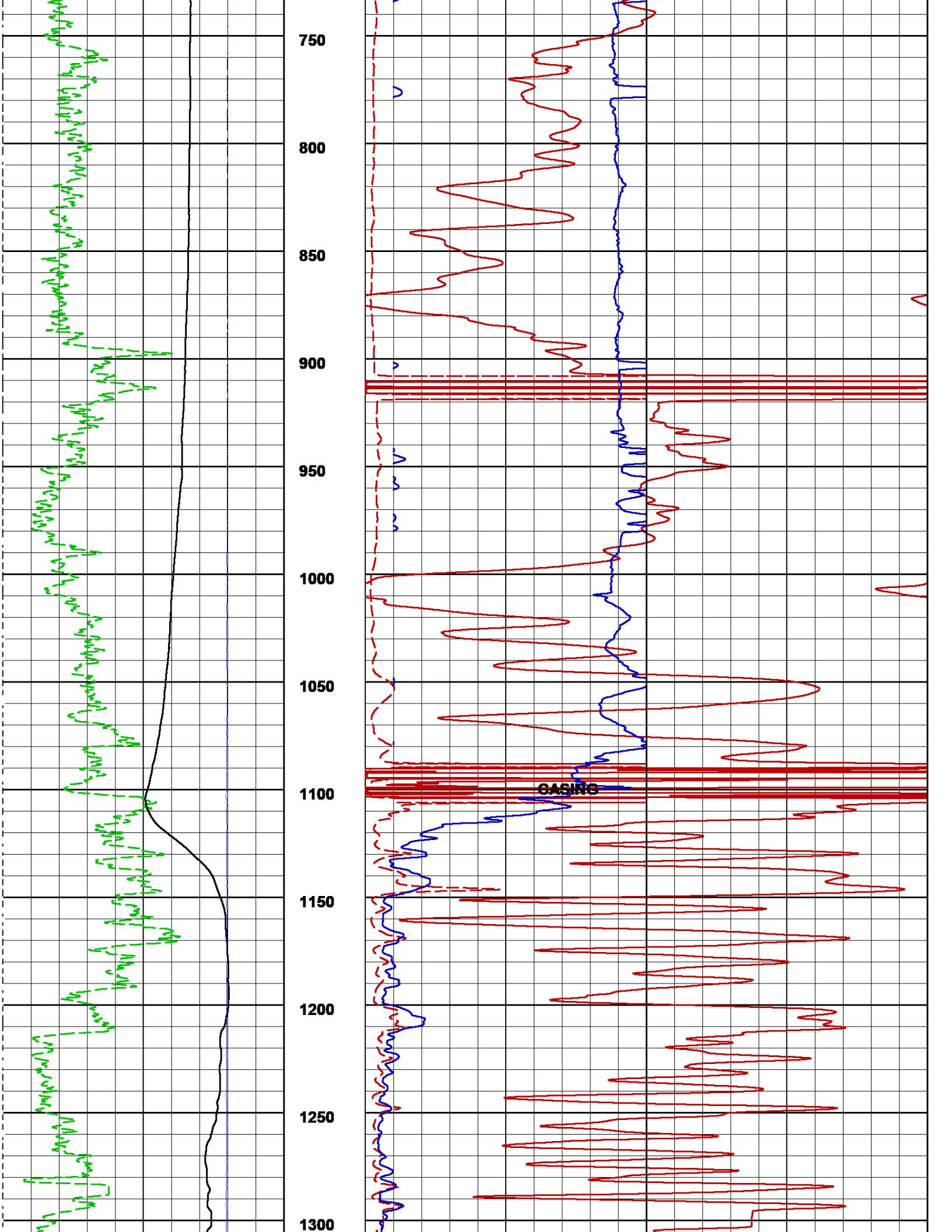
THANK YOU FOR USING RECON PETROTECHNOLOGIES INC.

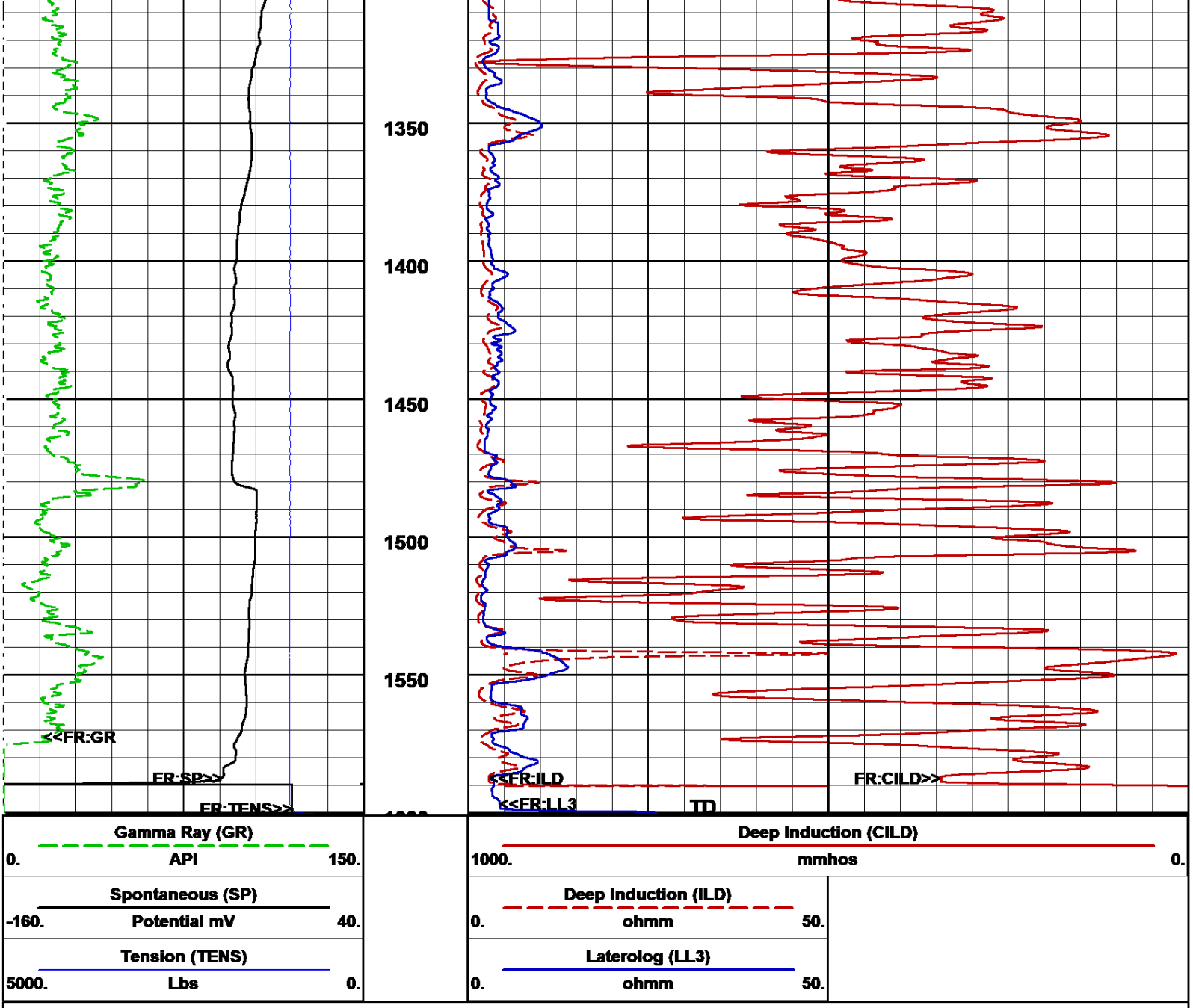
DUAL INDUCTION – SP / GAMMA RAY






200
250
300
350
400
450
500
550
600
650
700


750
800
850
900
950
1000
1050
1100
1150
1200
1250
1300
CASING



05/22/2025
17:05:25 => Start Time

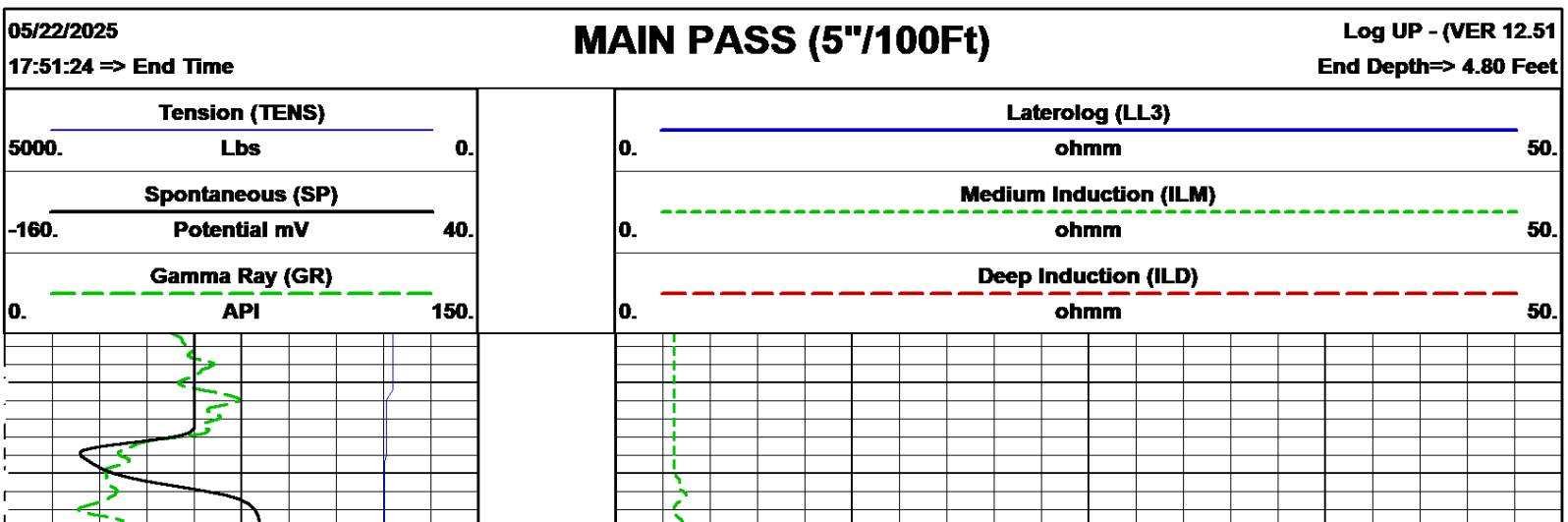
MAIN PASS (2"/100Ft)

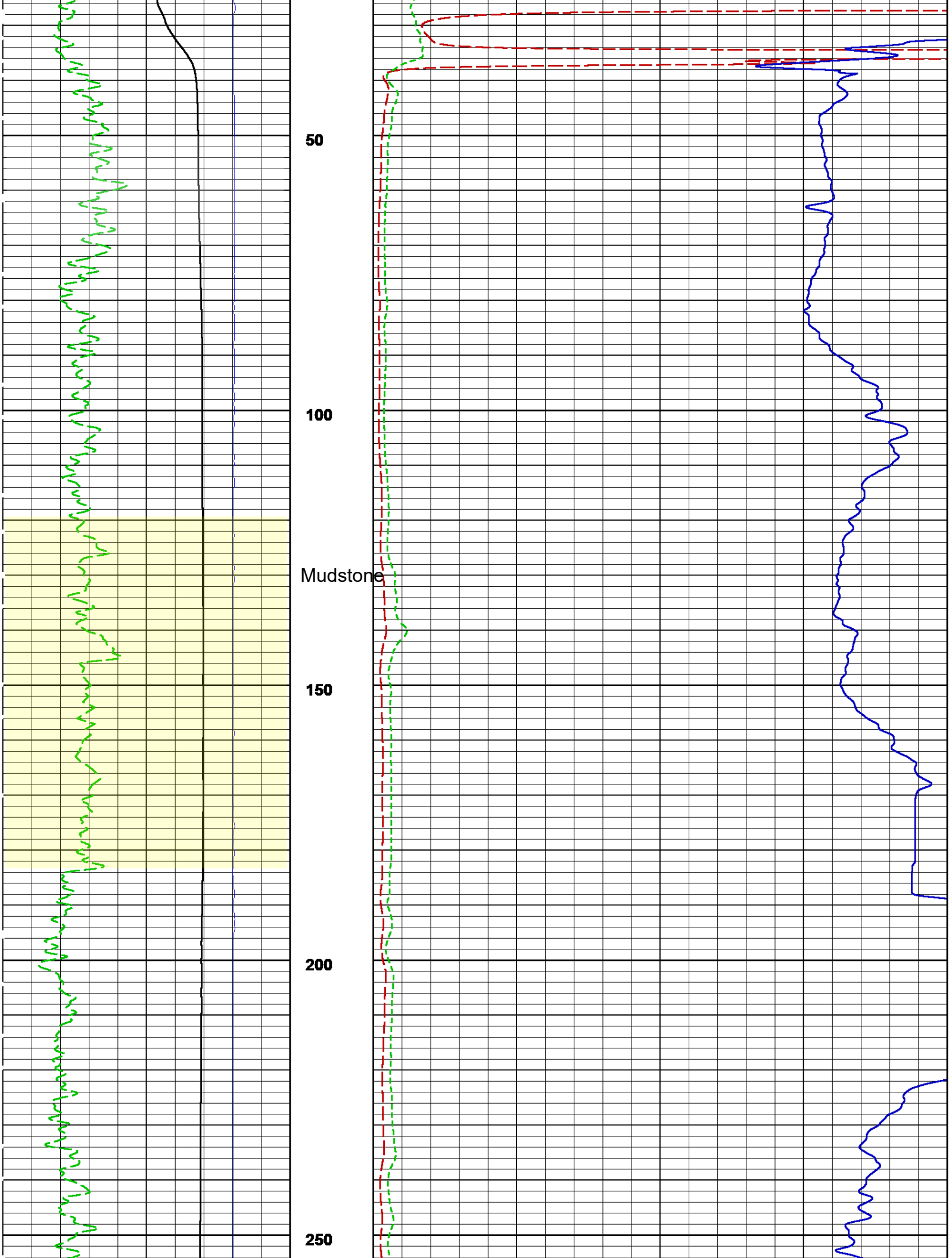
Log UP - (VER 12.51
Start Depth=> 1600.50 Feet

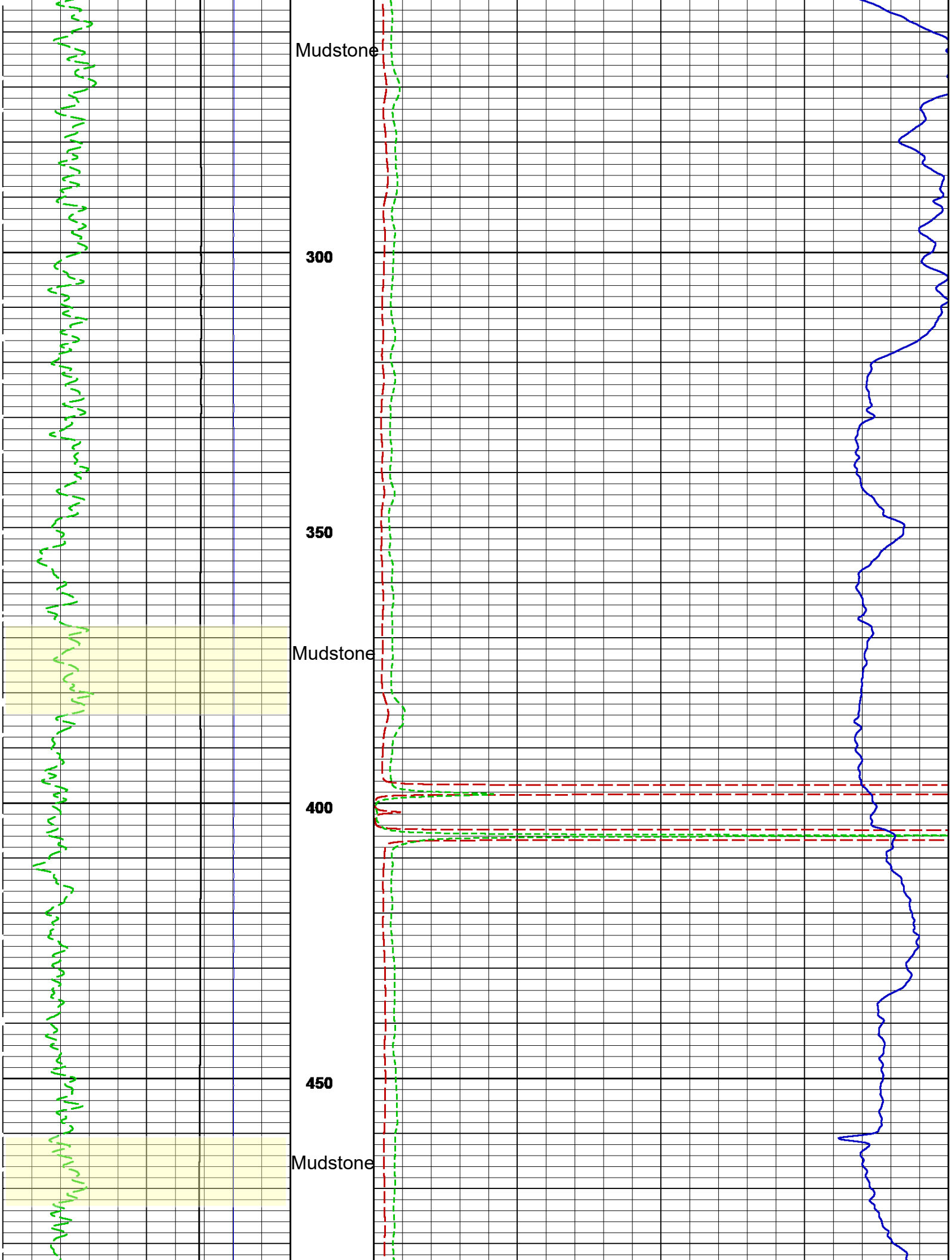
05/22/2025
17:51:24 => End Time

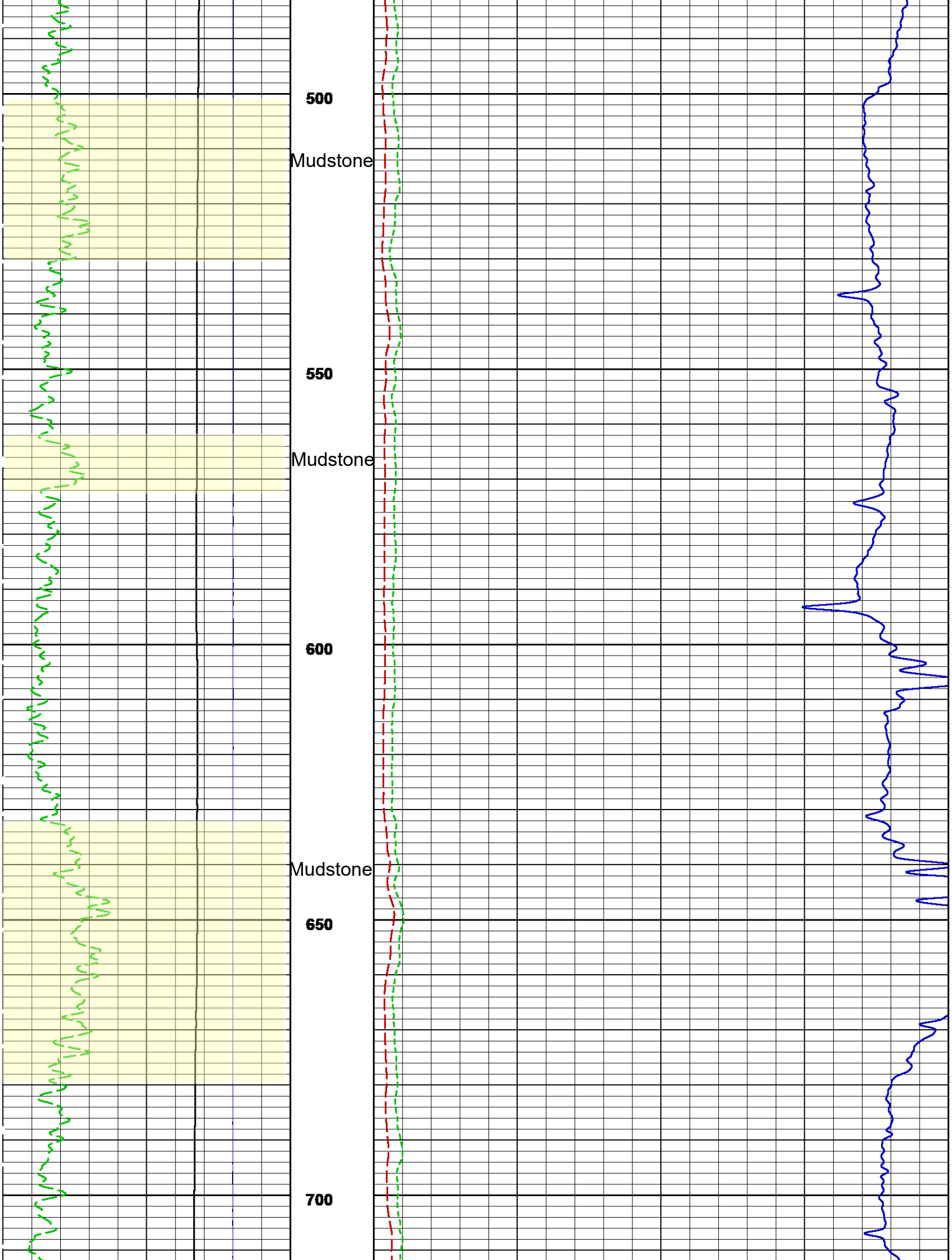
MAIN PASS (5"/100Ft)

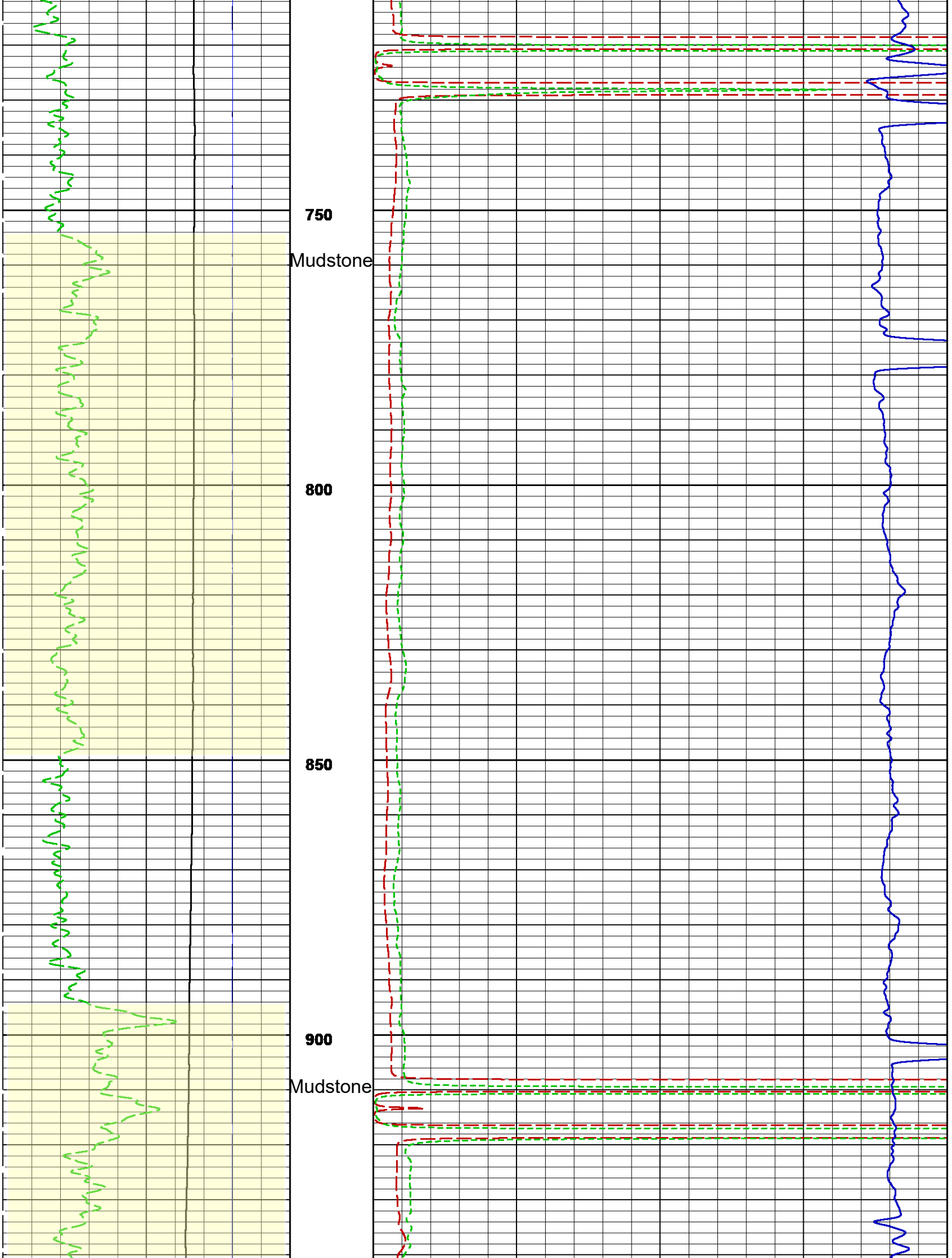
Log UP - (VER 12.51
End Depth=> 4.80 Feet

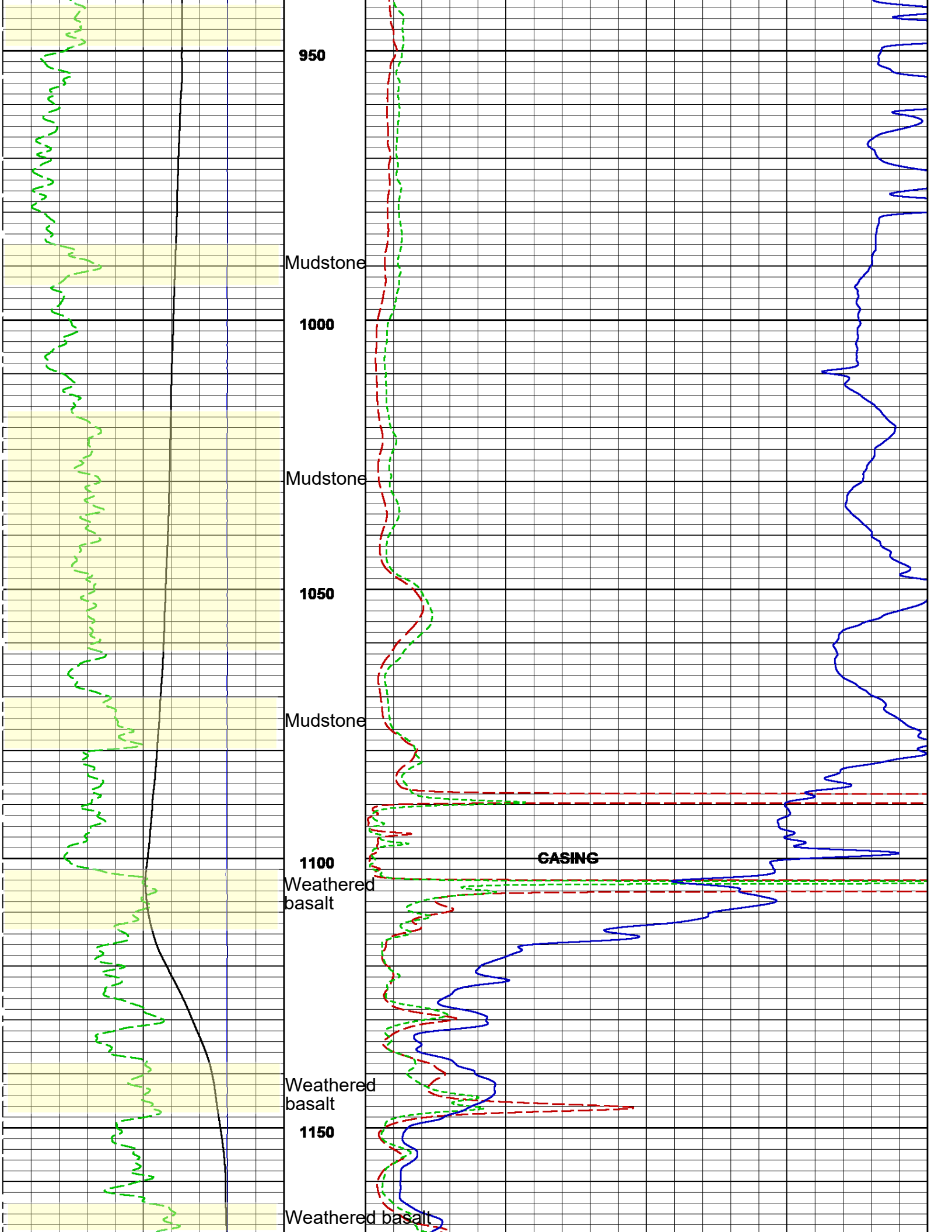


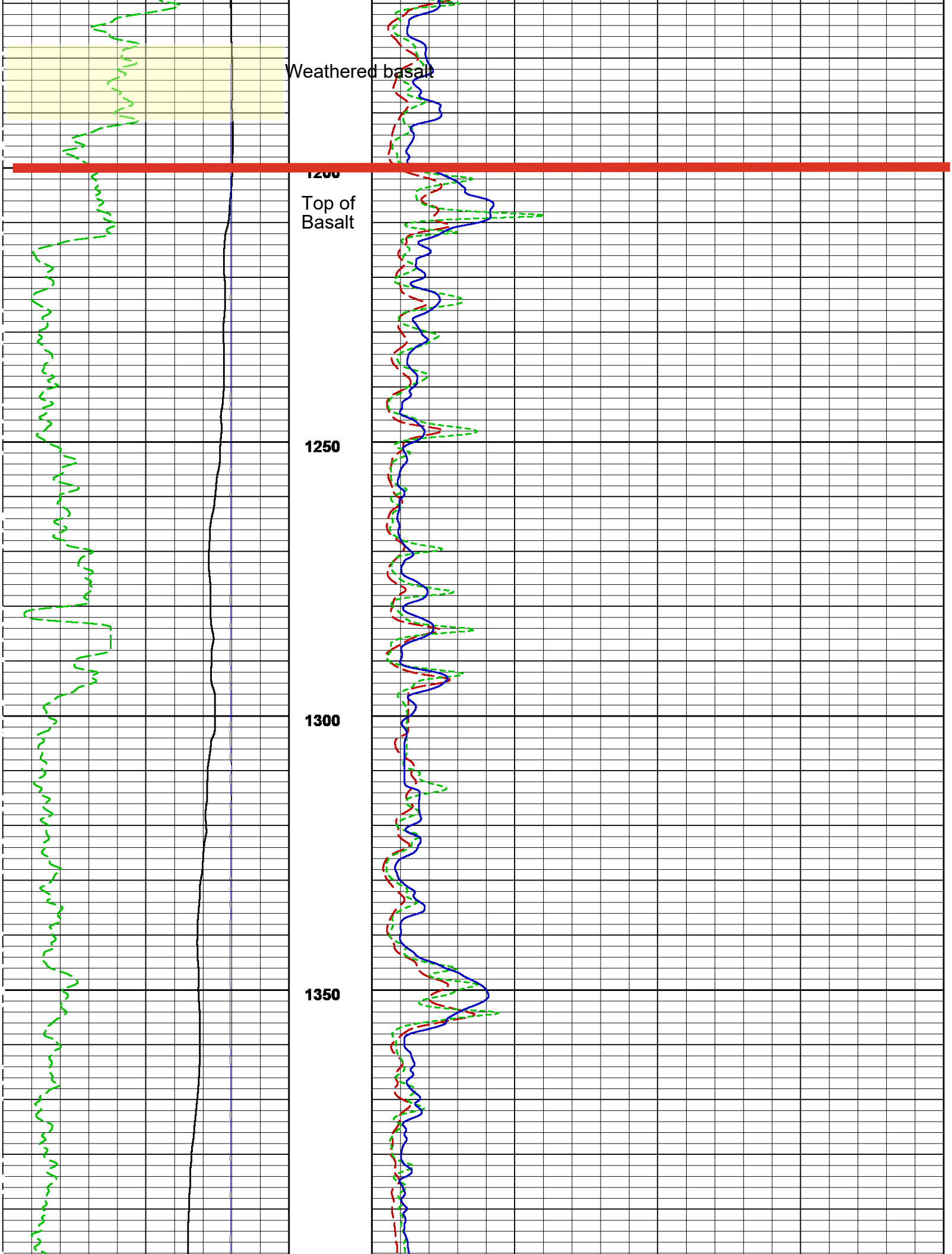

50
100
Mudstone
150
200
250

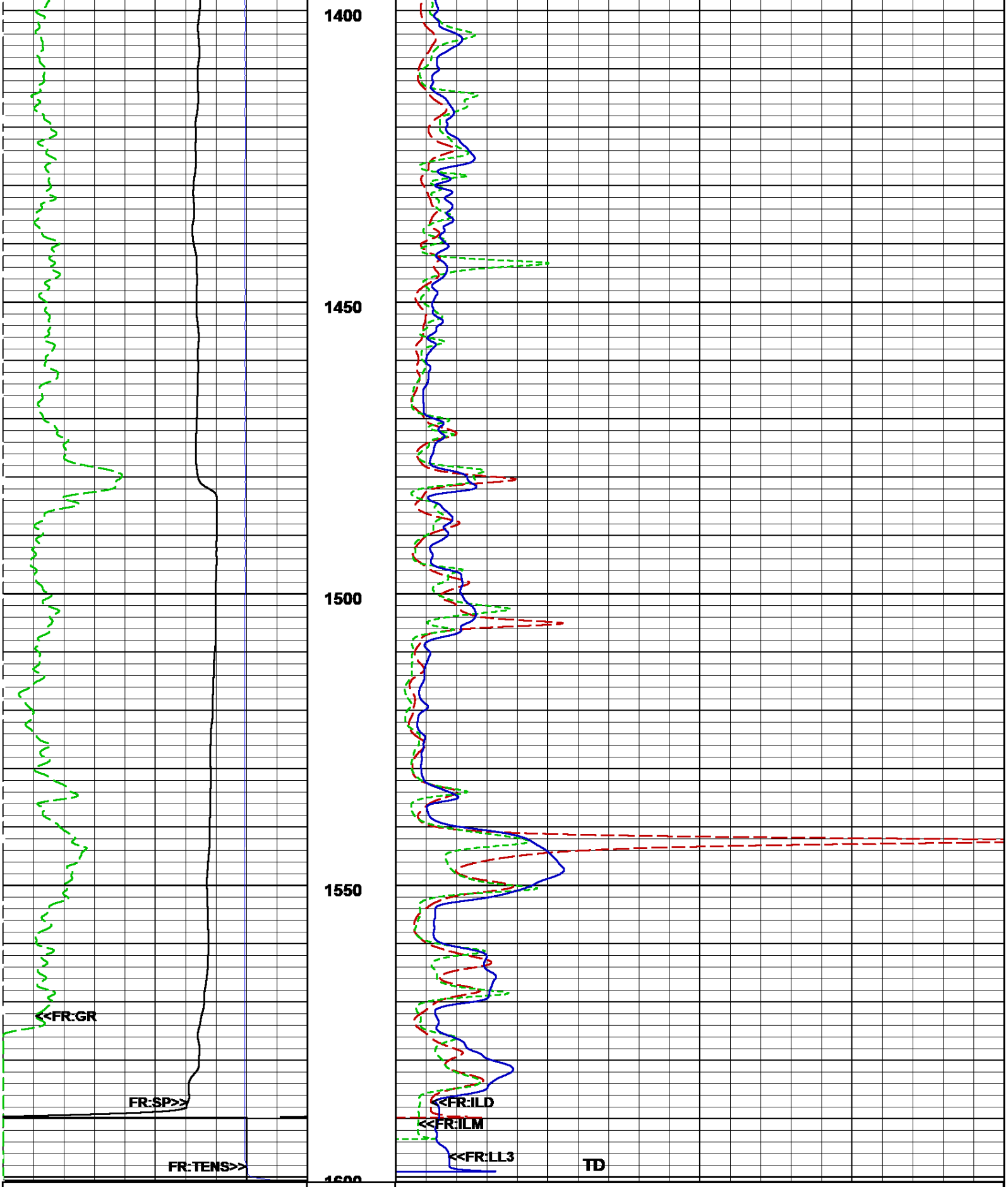

Mudstone
300
350
Mudstone
400
450
Mudstone


500
Mudstone
550
Mudstone
600
Mudstone
650
700


750
Mudstone
800
850
900
Mudstone


950
Mudstone
1000
Mudstone
1050
Mudstone
1100
CASING
Weathered basalt
Weathered basalt
1150
Weathered basalt


Weathered basalt
1200
Top of
Basalt
1250
1300
1350



Gamma Ray (GR)		
0.	API	150.
Spontaneous (SP)		
-160.	Potential mV	40.
Tension (TENS)		
5000.	Lbs	0.
Deep Induction (ILD)		
0.	ohmm	50.
Medium Induction (ILM)		
0.	ohmm	50.
Laterolog (LL3)		
0.	ohmm	50.

05/22/2025
17:05:25 => Start Time

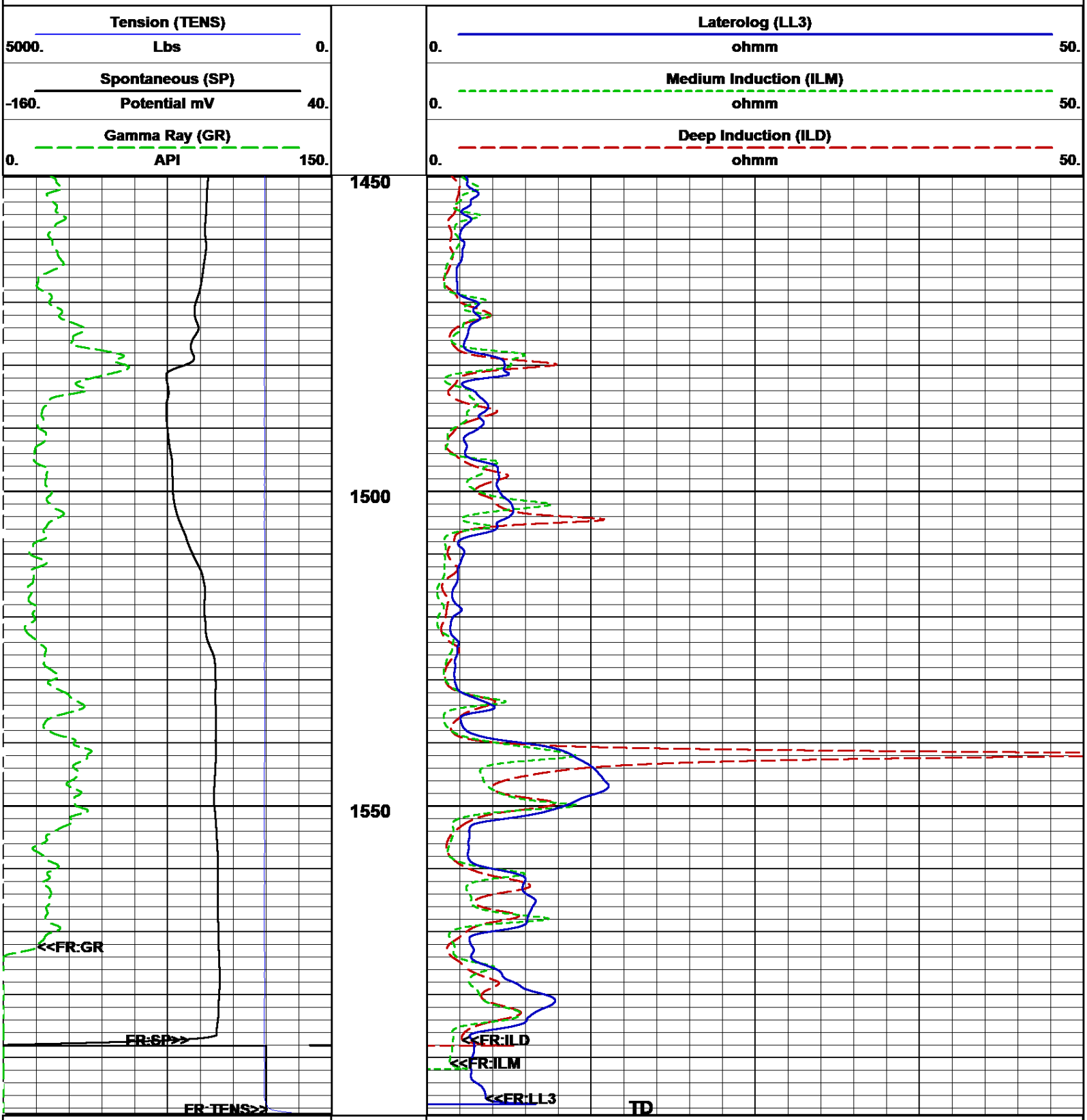
MAIN PASS (5"/100Ft)

Log UP - (VER 12.51
Start Depth=> 1600.70 Feet

05/22/2025
17:02:40 => End Time

REPEAT PASS (5"/100Ft)

Log UP - (VER 12.51
End Depth=> 1450.00 Feet



Gamma Ray (GR)
0. API 150.

Spontaneous (SP)
-160 Potential mV 40

Deep Induction (ILD)
0. ohmm 50.

Medium Induction (ILM)
0 ohmm 50

Tension (TENS)			Laterolog (LL3)		
5000.	Lbs	0.	0.	ohmm	50.

05/22/2025
16:56:19 => Start Time

REPEAT PASS (5"/100Ft)

Log UP - (VER 12.51
Start Depth=> 1599.00 Feet

Induction Resistivity / Conductivity Calibrations

TOOL TYPE	Slim Hole Induction	LOOP TYPE	TX
SERIAL NUM	RD1013	LOOP NUM	001

MASTER CALIBRATIONS

	OPEN LOOP(mmho)		CLOSED LOOP(mmho)		LOOP VERIFIER(mV)		CALIBRATION DATE	CALIBRATION TIME
	NO SKIN		NO SKIN	W/ SKIN	ZERO(mV)	SPAN(mV)		
DEEP INDUCTION	0.000		400.000	499.231	16.932	629.073	M/D/Y> 6/18/2024	H:M:S> 13:14:44
MED INDUCTION	0.000		462.500	501.895	18.097	815.202	M/D/Y> 12/8/2019	H:M:S> 21:5:47
	CALIBRATOR LOW(ohm)		CALIBRATOR HI(ohm)		LOW(mV)	HI(mV)		
SHALLOW LATERLOG	0.000		1480.000		0.360	7018.637	M/D/Y> 12/8/2019	H:M:S> 21:5:24

WELL SITE CALIBRATIONS

GAMMA RAY CALIBRATION

SERIAL NUM	RG3017
BLANKET NUM	1A

MASTER CALIBRATIONS

	BackGrnd	CalVal: 158.000 API	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	178.515 - raw	803.056 - raw	0.253 - gain 0.000 - off	M/D/Y> 5/1/2025	H:M:S> 8:58:10

Company	INTERA INCORPORATED
Well	KALAELOA BASALT WELL #1805-13
Field	WATER WELL
Island	OAHU
State	HAWAII

RECON

DUAL INDUCTION
LATEROLOG - SP
GAMMA RAY

Company	INTERA INCORPORATED
Well	KALAELOA BASALT WELL #1805-14
Field	WATER WELL
Island	OAHU
State	HAWAII

RECON

DUAL INDUCTION
LATEROLOG - SP
GAMMA RAY

	SEC	TWP	RGE	

OTHER SERVICES:

Location. EASTERN END OF OLAI STREET
SURF. SAME API #. N/A

Permanent Datum .	Ground Level	Elevation:	11.91
Log Measured From .	Concrete Pad	Latitude:	21.299794
Drilling Measured From	Concrete Pad	Longitude:	-158.087928

ELEVATIONS PAD 14.11
G.L. 11.91
D.F. N/A

Date		22-MAY-2025					
Run No.		ONE					
TD Driller		300	ft.			ft.	
TD RECON		299	ft.			ft.	
Bot Logged Interval		300	ft.			ft.	
Top Logged Interval		5	ft.			ft.	
Casing Depth Driller		17.4	in.	@ 300		in.	@
Casing Depth RECON		17.4	in.	@ 299		in.	@
Bit Size		26	in.			in.	
Drilling Fluid Type		N/A					
Density	Viscosity	N/A		N/A			
Fluid Loss	PH	N/A		N/A			
Source Of Sample		Flowline					
RM @ Measured Temp		0.25	Ohmm	@ 75°F		Ohmm	@
RMF @ Measured Temp		0.20	Ohmm	@ 75°F		Ohmm	@
RMC @ Measured Temp		0.30	Ohmm	@ 75°F		Ohmm	@
RM @ MRT		0.25	Ohmm	@ 73°F		Ohmm	@
Max Recorded Temp		80°F					
Time Drilling Stopped		N/A		N/A			
Time Circulation Stopped		N/A		N/A			
Time Logger On Bottom		22-MAY-2025		10:40			
Unit Num	Location	S701		ALVARADO, TX			
Recorded By		Kyle Ranallo					
Witnessed By		Eva Kakone					

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RIG INFORMATION

Drill Contr/Rig# N/A

GENERAL REMARKS SECTION

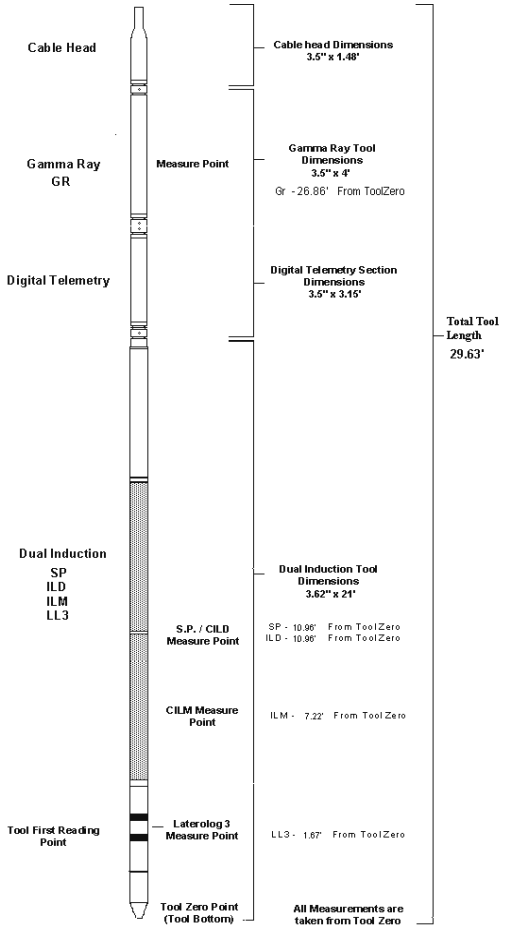
FIRST RUN IN THE HOLE

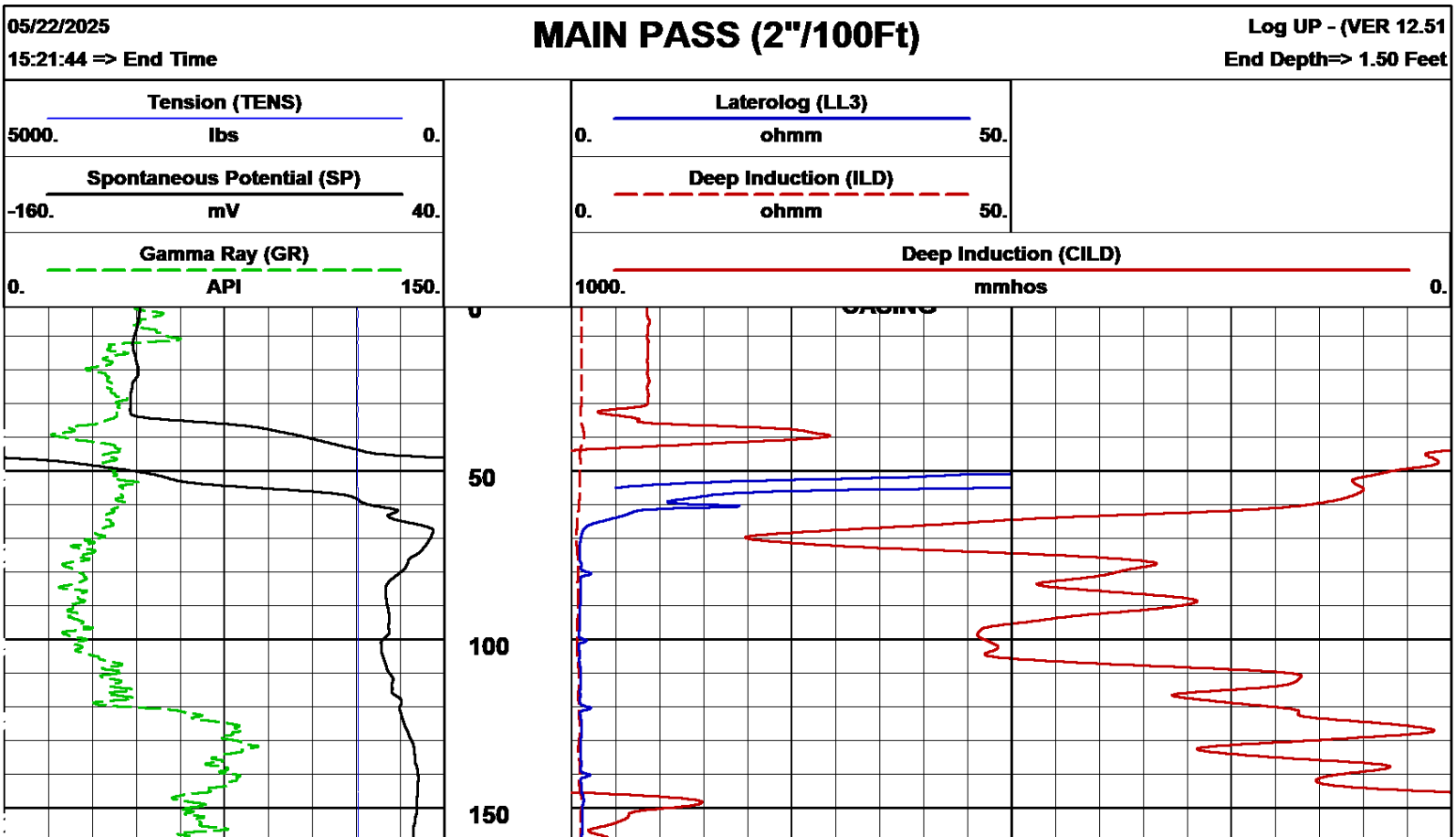
DISPATCH 24 HR: 682-628-4841

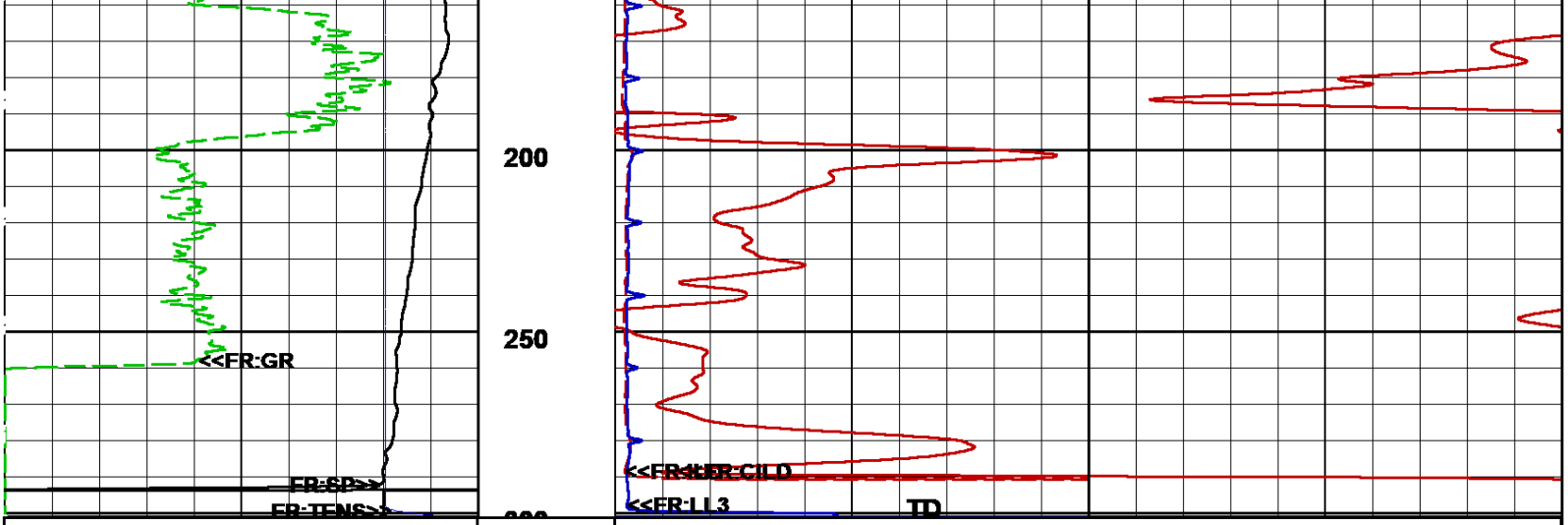
CREW: T.ORTEGA, M.PAGE

THANK YOU FOR USING RECON PETROTECHNOLOGIES INC.

DUAL INDUCTION – SP / GAMMA RAY







Gamma Ray (GR)	0. API 150.	
Spontaneous Potential (SP)	-160. mV 40.	
Tension (TENS)	5000. lbs 0.	
Deep Induction (CILD)	1000. mmhos 0.	
Deep Induction (ILD)	0. ohmm 50.	
Laterolog (LL3)	0. ohmm 50.	

05/22/2025
15:11:08 => Start Time

MAIN PASS (2"/100Ft)

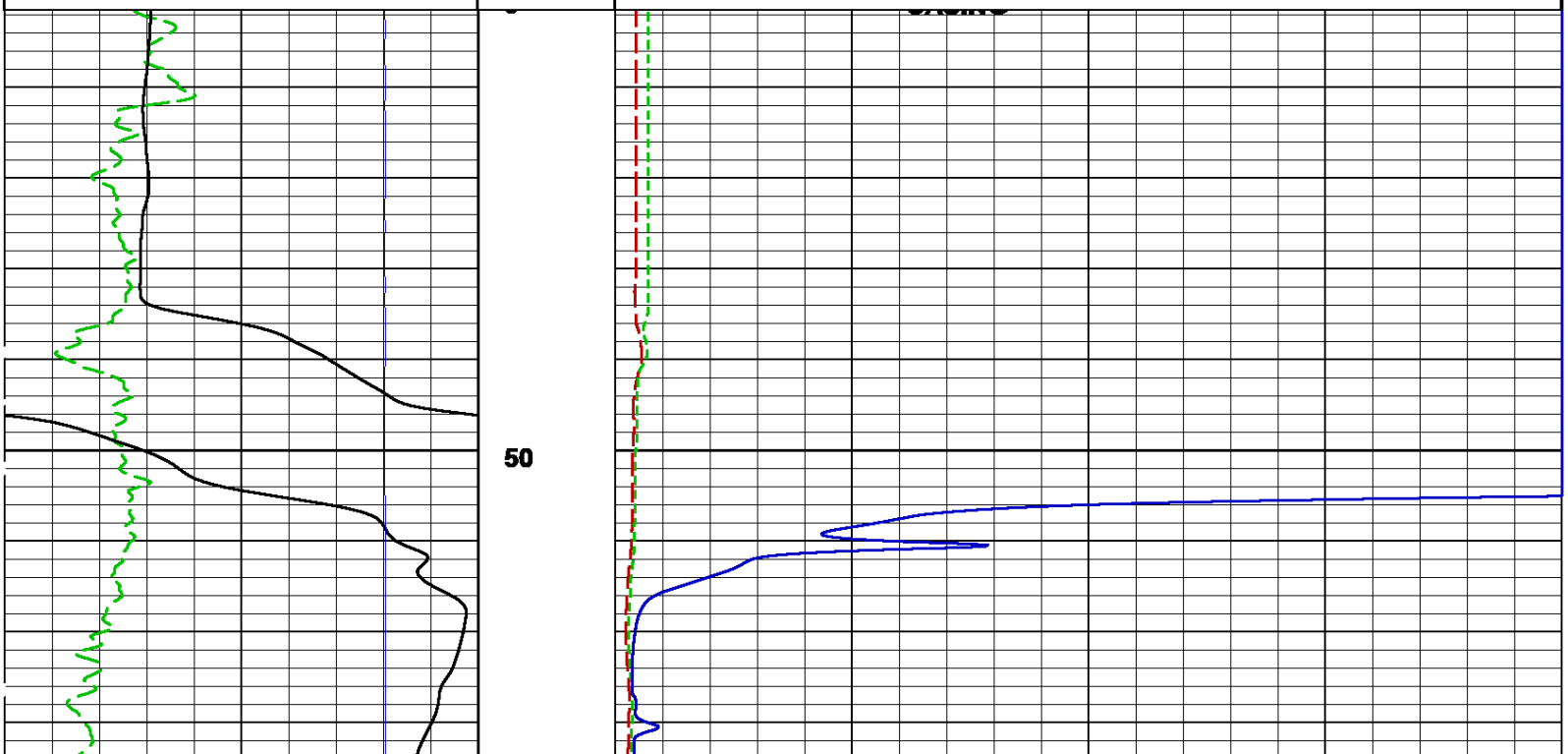
Log UP - (VER 12.51
Start Depth=> 300.75 Feet

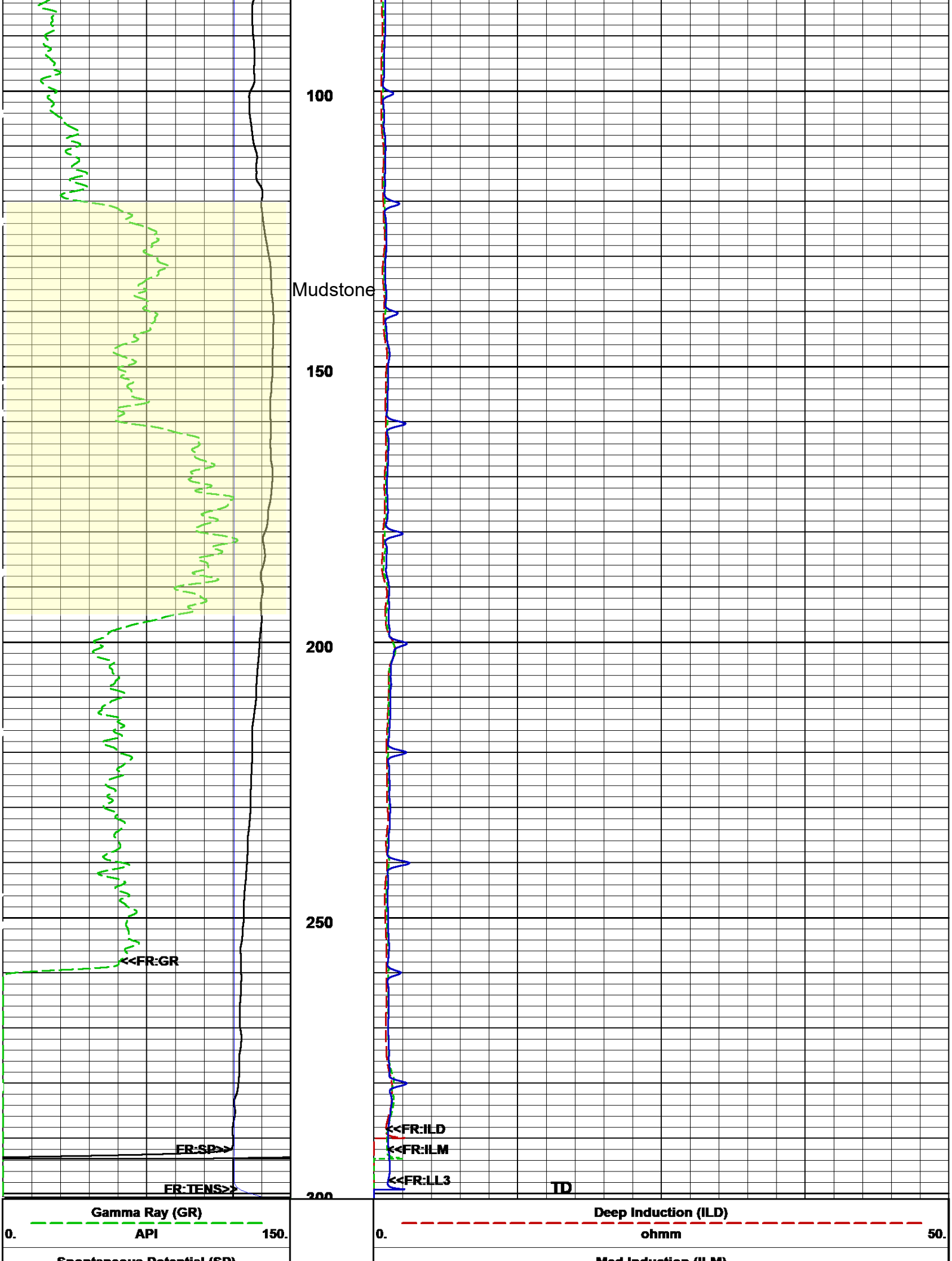
05/22/2025
15:21:44 => End Time

MAIN PASS (5"/100Ft)

Log UP - (VER 12.51
End Depth=> 1.70 Feet

Tension (TENS)	5000. lbs 0.
Spontaneous Potential (SP)	-160. mV 40.
Gamma Ray (GR)	0. API 150.
Laterolog (LL3)	0. ohmm 50.
Med Induction (ILM)	0. ohmm 50.
Deep Induction (ILD)	0. ohmm 50.




100
Mudstone
150
200
250
<<FR:GR
FR:SP>>
FR:TENS>>
300
<<FR:ILD
<<FR:ILM
<<FR:LL3
TD
Gamma Ray (GR)
0.
API
150.
Deep Induction (ILD)
0.
ohmm
50.

Spontaneous Potential (SP)
-160. mV 40.

Tension (TENS)
5000. lbs 0.

Med Induction (ILM)
0. ohmm 50.

Laterolog (LL3)
0. ohmm 50.

05/22/2025
15:11:08 => Start Time

MAIN PASS (5"/100Ft)

Log UP - (VER 12.51
Start Depth=> 300.80 Feet

05/22/2025
15:21:44 => End Time

REPEAT PASS (5"/100Ft)

Log UP - (VER 12.51
End Depth=> 199.90 Feet

Tension (TENS)
5000. lbs 0.

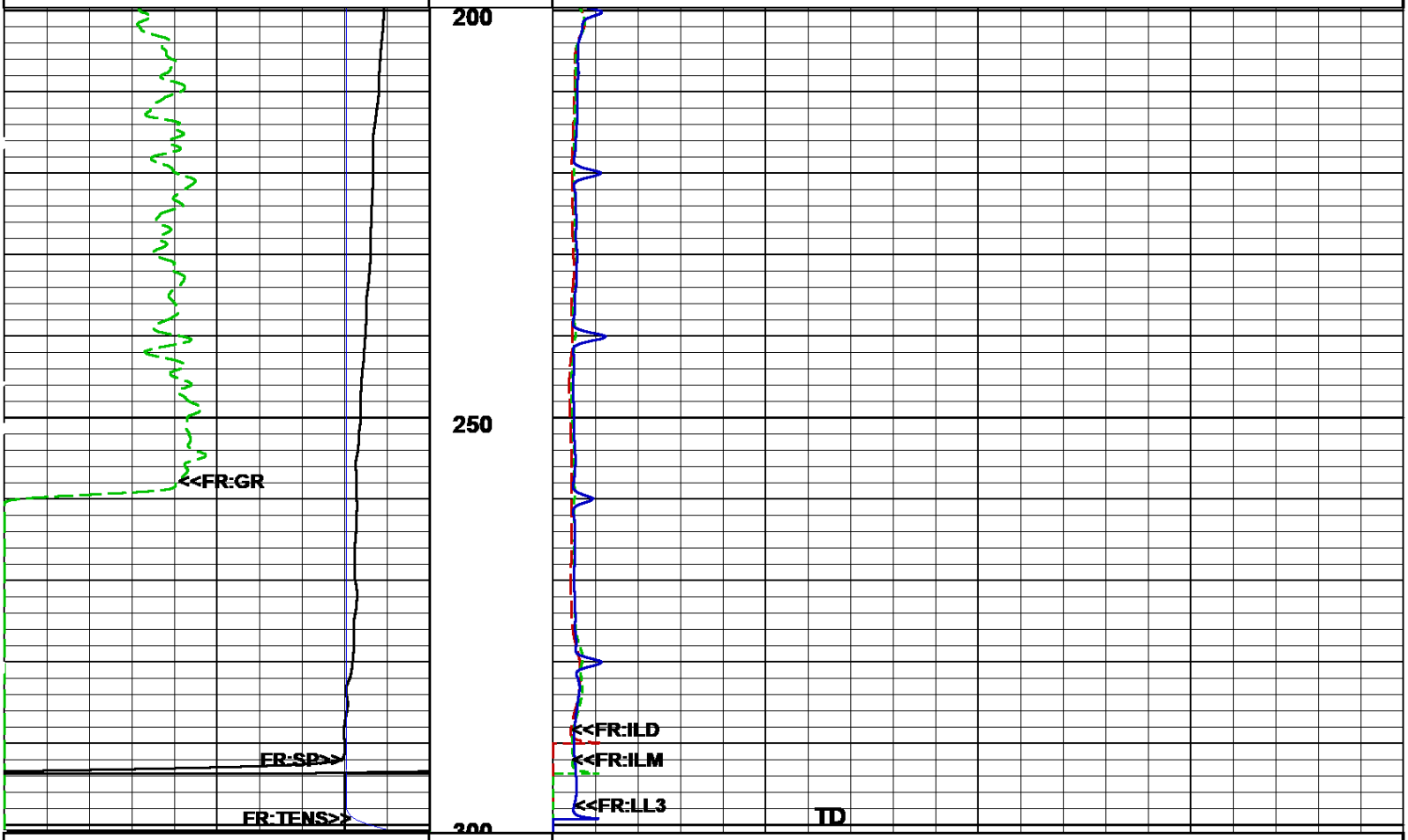
Spontaneous Potential (SP)
-160. mV 40.

Gamma Ray (GR)
0. API 150.

Laterolog (LL3)
0. ohmm 50.

Med Induction (ILM)
0. ohmm 50.

Deep Induction (ILD)
0. ohmm 50.



Gamma Ray (GR)
0. API 150.

Spontaneous Potential (SP)
-160. mV 40.

Tension (TENS)
5000. lbs 0.

Deep Induction (ILD)
0. ohmm 50.

Med Induction (ILM)
0. ohmm 50.

Laterolog (LL3)
0. ohmm 50.

05/22/2025
15:11:08 => Start Time

REPEAT PASS (5"/100Ft)

Log UP - (VER 12.51
Start Depth=> 300.80 Feet

Induction Resistivity / Conductivity Calibrations

TOOL TYPE	Slim Hole Induction	LOOP TYPE	TX
SERIAL NUM	RD1013	LOOP NUM	001

MASTER CALIBRATIONS

	OPEN LOOP(mmho)		CLOSED LOOP(mmho)		LOOP VERIFIER(mV)		CALIBRATION DATE	CALIBRATION TIME
	NO SKIN		NO SKIN	W/ SKIN	ZERO(mV)	SPAN(mV)		
DEEP INDUCTION	0.000		400.000	499.231	16.932	629.073	M/D/Y> 6/18/2024	H:M:S> 13:14:44
MED INDUCTION	0.000		462.500	501.895	18.097	815.202	M/D/Y> 12/8/2019	H:M:S> 21:5:47
	CALIBRATOR LOW(ohm)		CALIBRATOR HI(ohm)		LOW(mV)	HI(mV)		
SHALLOW LATERLOG	0.000		1480.000		0.360	7018.637	M/D/Y> 12/8/2019	H:M:S> 21:5:24

WELL SITE CALIBRATIONS

GAMMA RAY CALIBRATION

SERIAL NUM	RG3017
BLANKET NUM	1A

MASTER CALIBRATIONS

	BackGrnd	CalVal: 158.000 API	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	178.515 - raw	803.056 - raw	0.253 - gain 0.000 - off	M/D/Y> 5/1/2025	H:M:S> 8:58:10

Company	INTERA INCORPORATED
Well	KALAELOA BASALT WELL #1805-14
Field	WATER WELL
Island	OAHU
State	HAWAII

RECON

DUAL INDUCTION
LATEROLOG - SP
GAMMA RAY

Company	INTERA INCORPORATED
Well	KALAELOA BASALT WELL #1805-15
Field	WATER WELL
Island	OAHU
State	HAWAII

RECON

DUAL INDUCTION
LATEROLOG - SP
GAMMA RAY

	SEC	TWP	RGE	

OTHER SERVICES:

Location. EASTERN END OF OLAI STREET
SURF. SAME API #. N/A

Permanent Datum .	Ground Level	Elevation:	12.80
Log Measured From .	Concrete Pad	Latitude:	21.299794
Drilling Measured From	Concrete Pad	Longitude:	-158.087928

ELEVATIONS PAD 13.28
G.L. 12.80
D.F. N/A

Date		22-MAY-2025				
Run No.		ONE				
TD Driller		1556	ft.		ft.	
TD RECON		1539	ft.		ft.	
Bot Logged Interval		1539	ft.		ft.	
Top Logged Interval		5	ft.		ft.	
Casing Depth Driller		20	in.	@ 1100	in.	@
Casing Depth RECON		20	in.	@ 1100	in.	@
Bit Size		26	in.		in.	
Drilling Fluid Type		N/A				
Density	Viscosity	N/A		N/A		
Fluid Loss	PH	N/A		N/A		
Source Of Sample		Flowline				
RM @ Measured Temp		0.25	Ohmm	@ 75°F	Ohmm	@
RMF @ Measured Temp		0.20	Ohmm	@ 75°F	Ohmm	@
RMC @ Measured Temp		0.29	Ohmm	@ 75°F	Ohmm	@
RM @ MRT		0.32	Ohmm	@ 56°F	Ohmm	@
Max Recorded Temp		80°F				
Time Drilling Stopped		N/A		N/A		
Time Circulation Stopped		N/A		N/A		
Time Logger On Bottom		22-MAY-2025		14:45		
Unit Num	Location	S701		ALVARADO, TX		
Recorded By		Kyle Ranallo				
Witnessed By		Eva Kakone				

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RIG INFORMATION

Drill Contr/Rig# N/A

GENERAL REMARKS SECTION

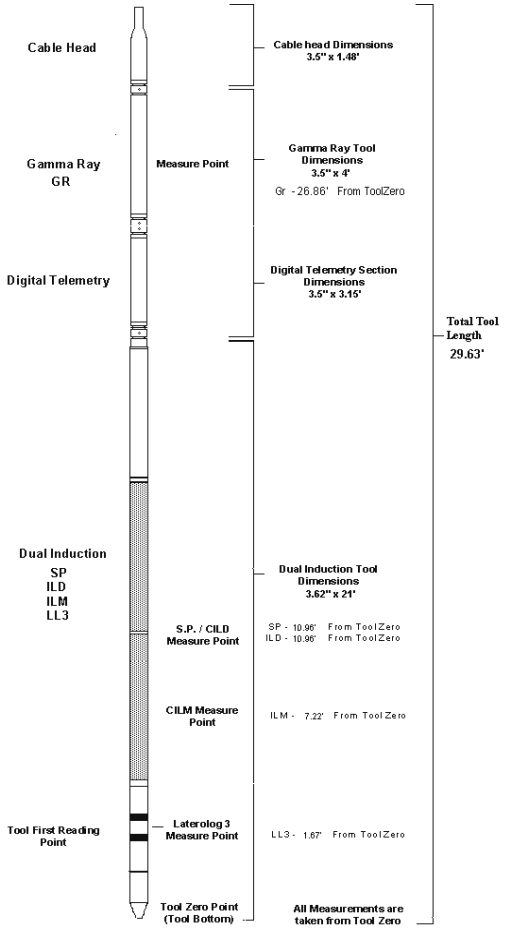
FIRST RUN IN THE HOLE

DISPATCH 24 HR: 682-628-4841

CREW: T.ORTEGA, M.PAGE

THANK YOU FOR USING RECON PETROTECHNOLOGIES INC.

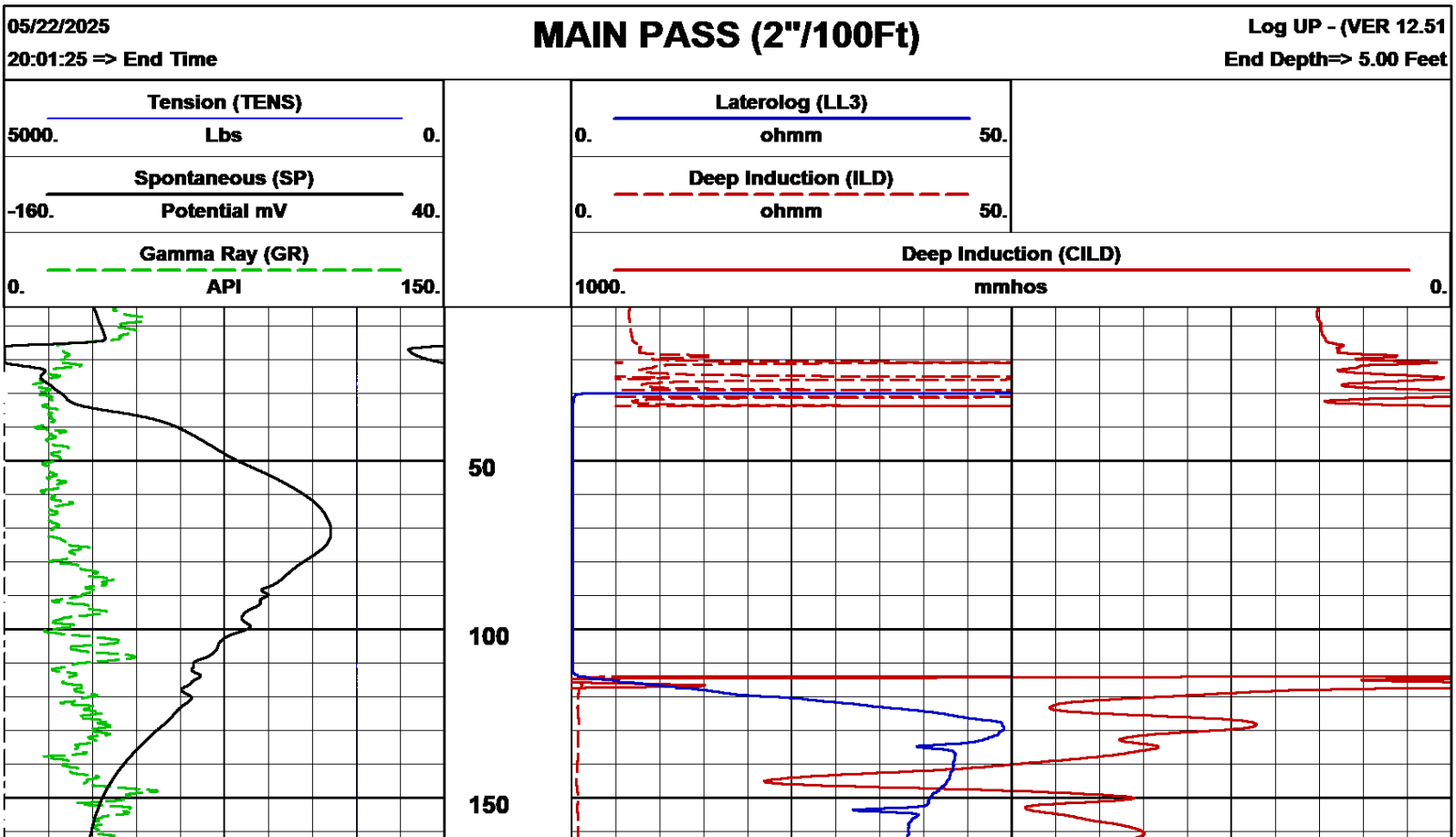
DUAL INDUCTION – SP / GAMMA RAY

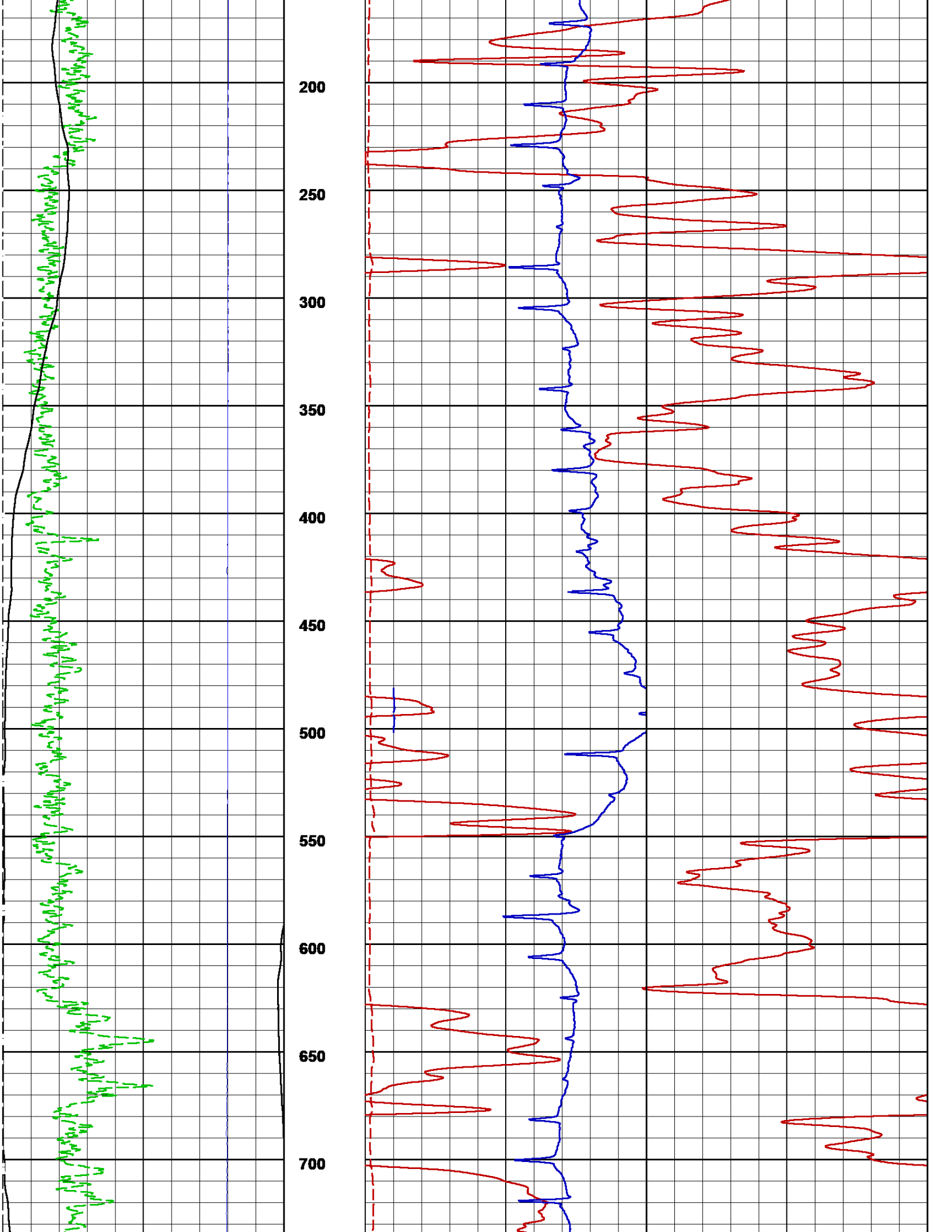


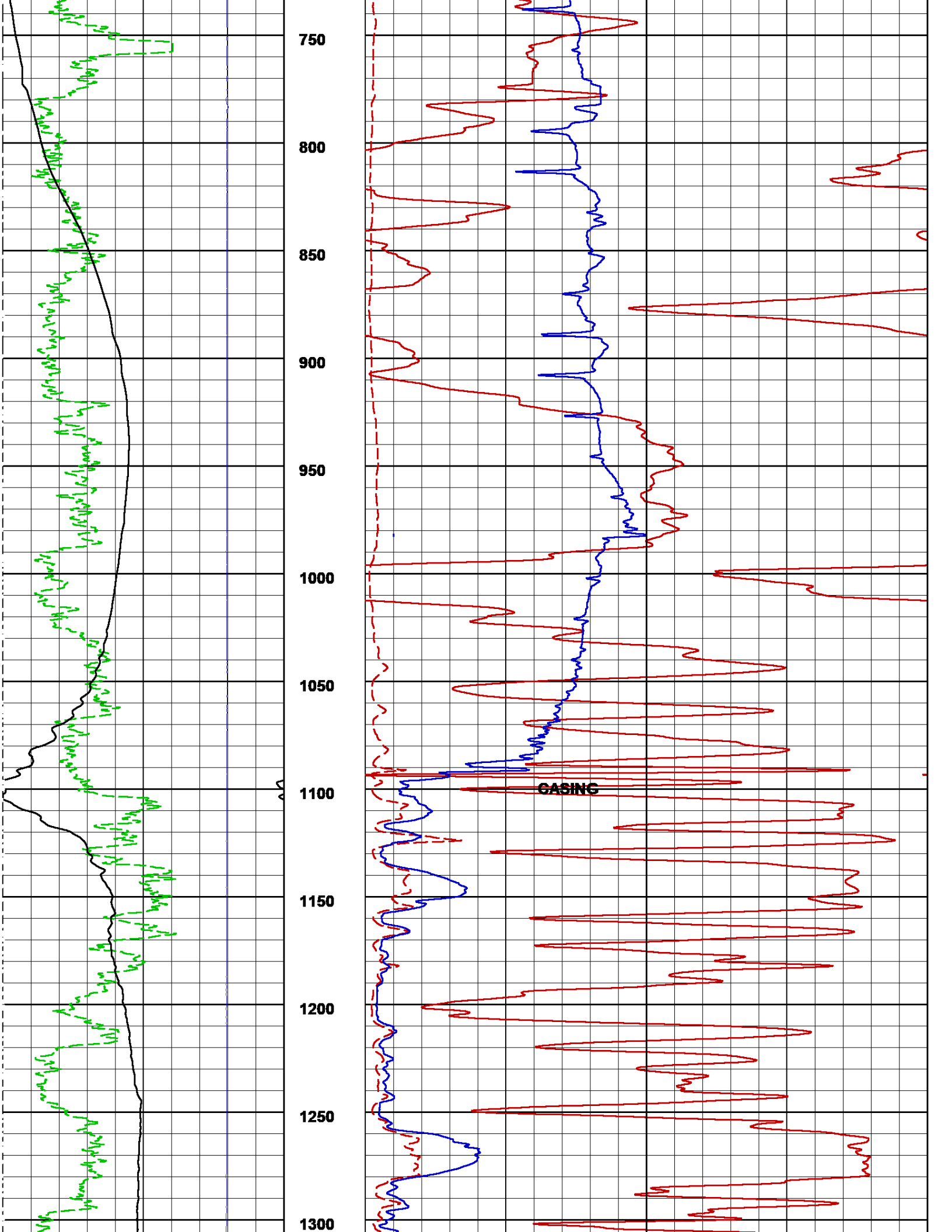
05/22/2025
20:01:25 => End Time

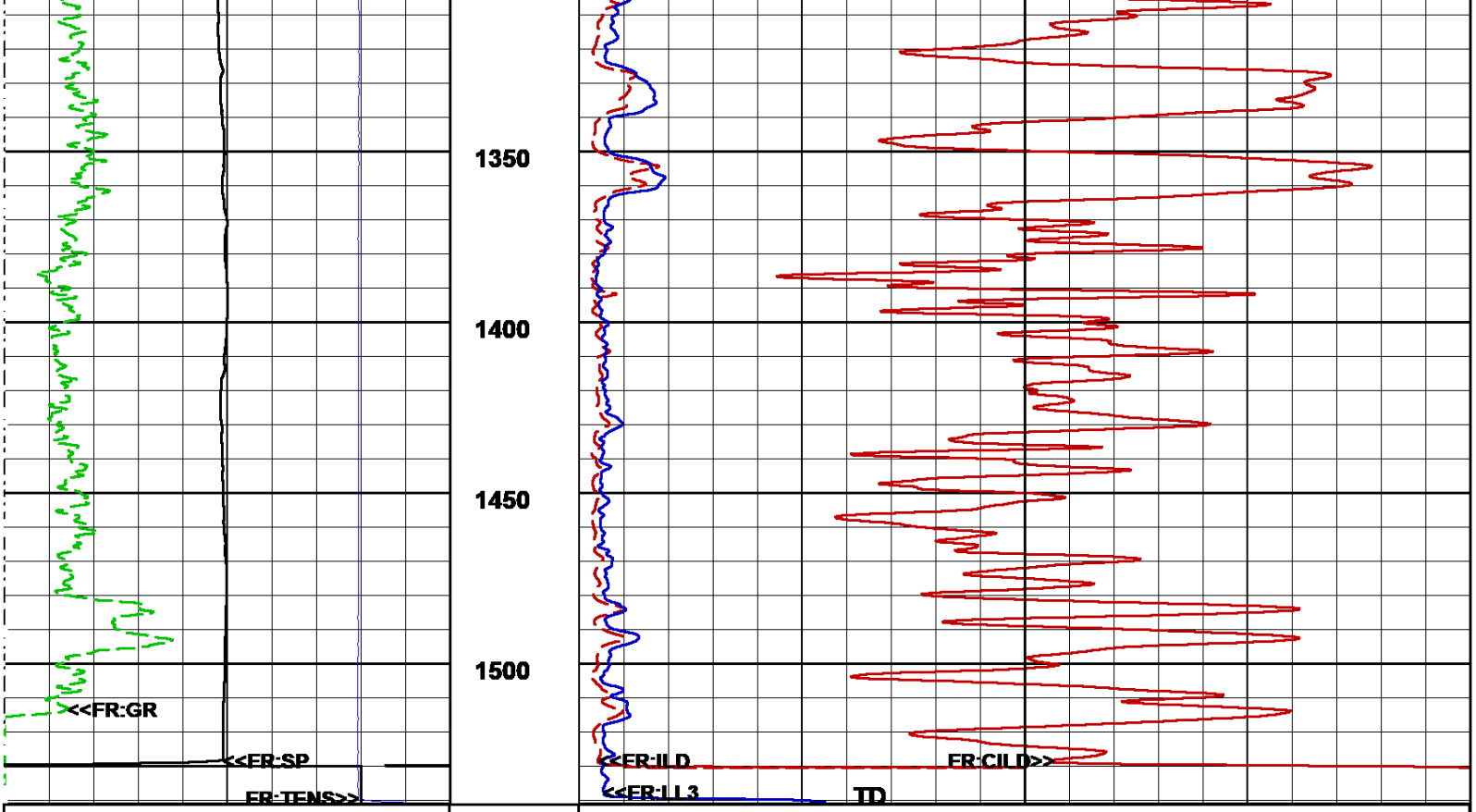
MAIN PASS (2"/100Ft)

Log UP - (VER 12.51
End Depth=> 5.00 Feet




200
250
300
350
400
450
500
550
600
650
700


750
800
850
900
950
1000
1050
1100
CASING
1150
1200
1250
1300



Gamma Ray (GR)		Deep Induction (CILD)
0. API 150.		1000. mmhos 0.
Spontaneous (SP)		Deep Induction (ILD)
-160. Potential mV 40.		0. ohmm 50.
Tension (TENS)		Laterolog (LL3)
5000. Lbs 0.		0. ohmm 50.

05/22/2025
19:23:20 => Start Time

MAIN PASS (2"/100Ft)

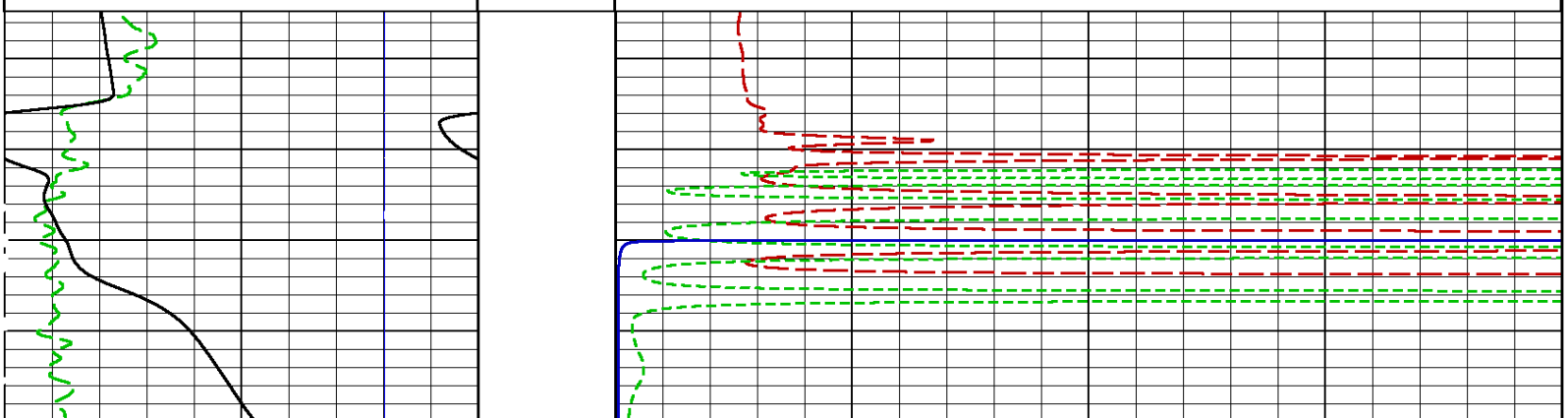
Log UP - (VER 12.51
Start Depth=> 1540.75 Feet

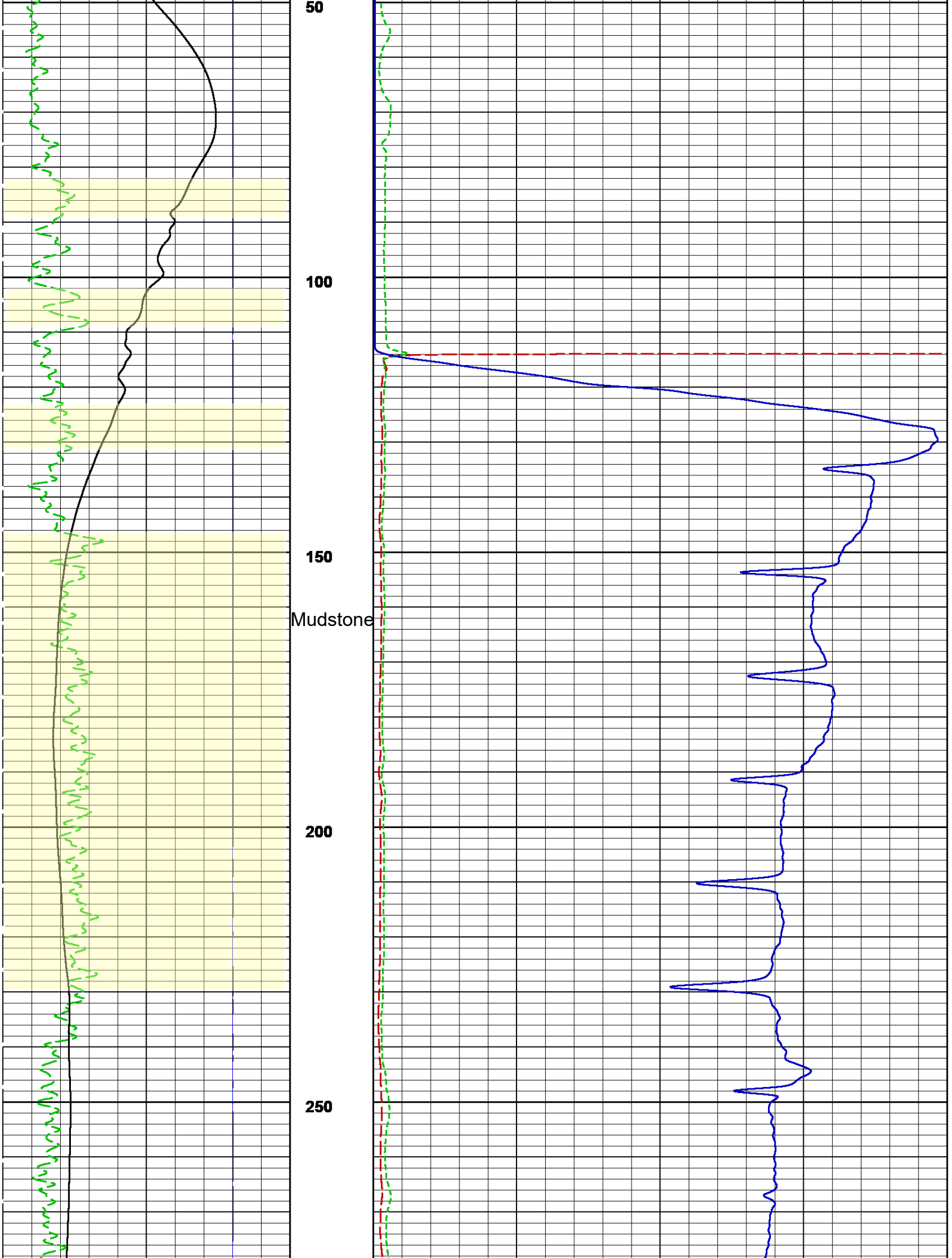
05/22/2025
20:01:25 => End Time

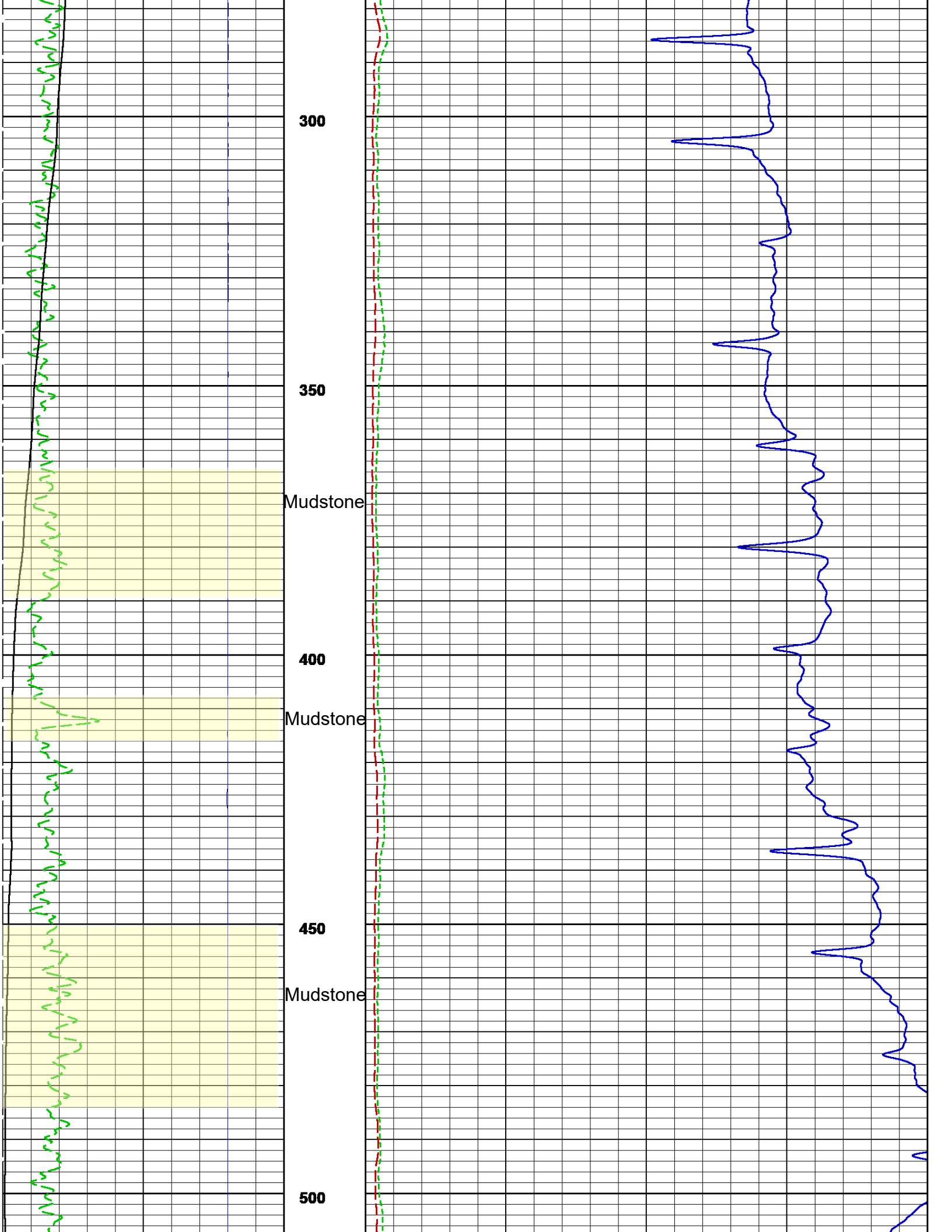
MAIN PASS (5"/100Ft)

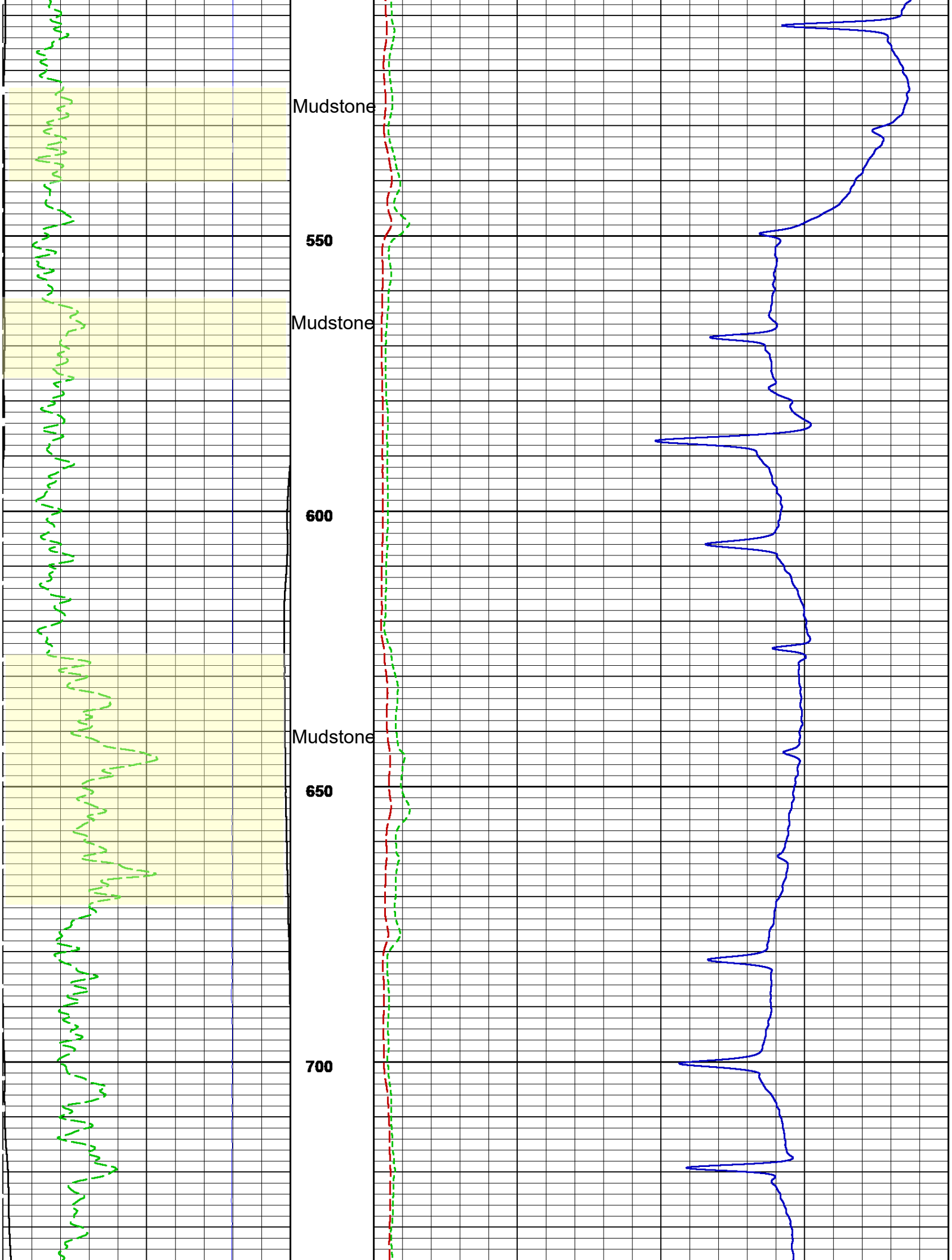
Log UP - (VER 12.51
End Depth=> 5.00 Feet

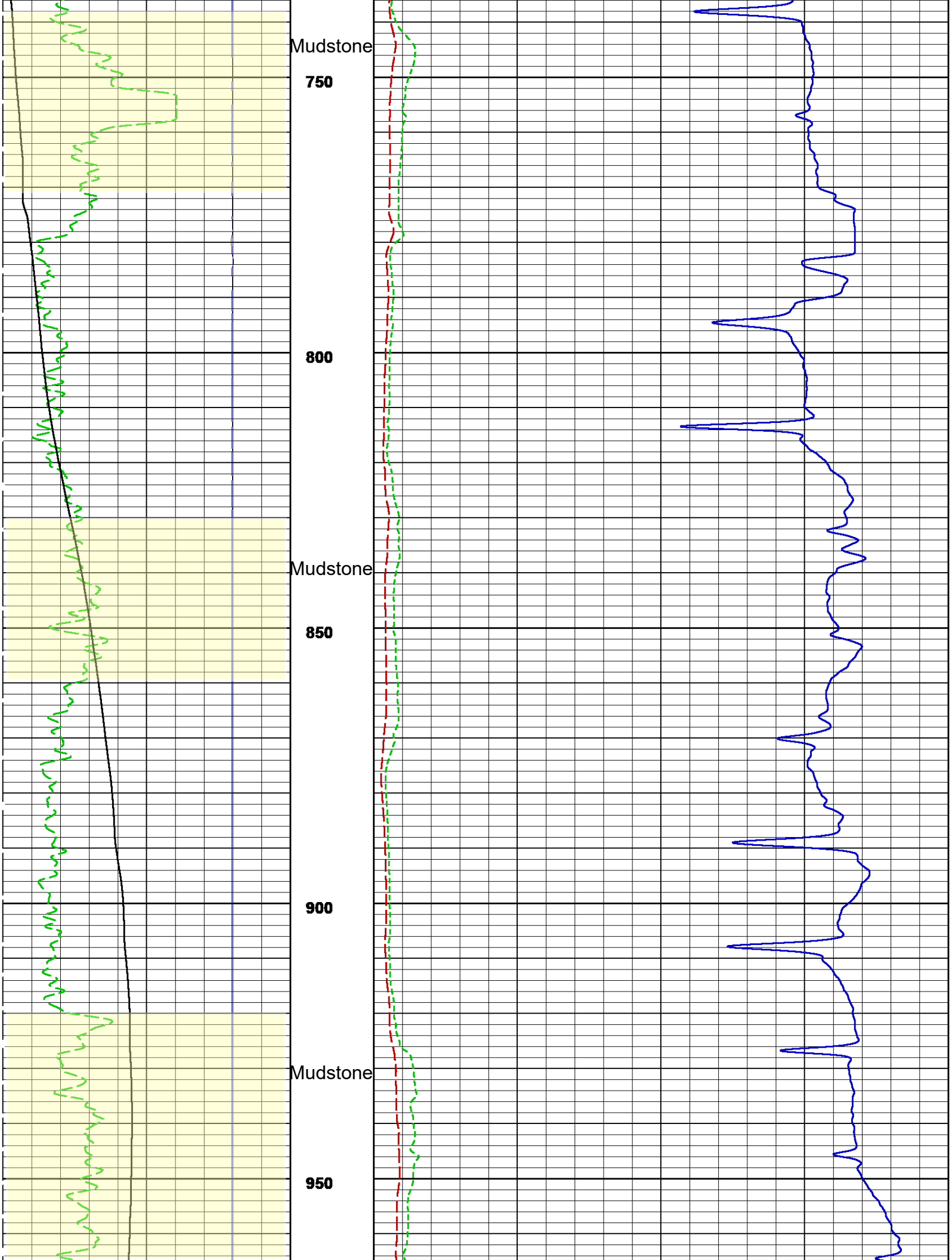
Tension (TENS)		Laterolog (LL3)
5000. Lbs 0.		0. ohmm 50.
Spontaneous (SP)		Medium Induction (ILM)
-160. Potential mV 40.		0. ohmm 50.
Gamma Ray (GR)		Deep Induction (ILD)
0. API 150.		0. ohmm 50.

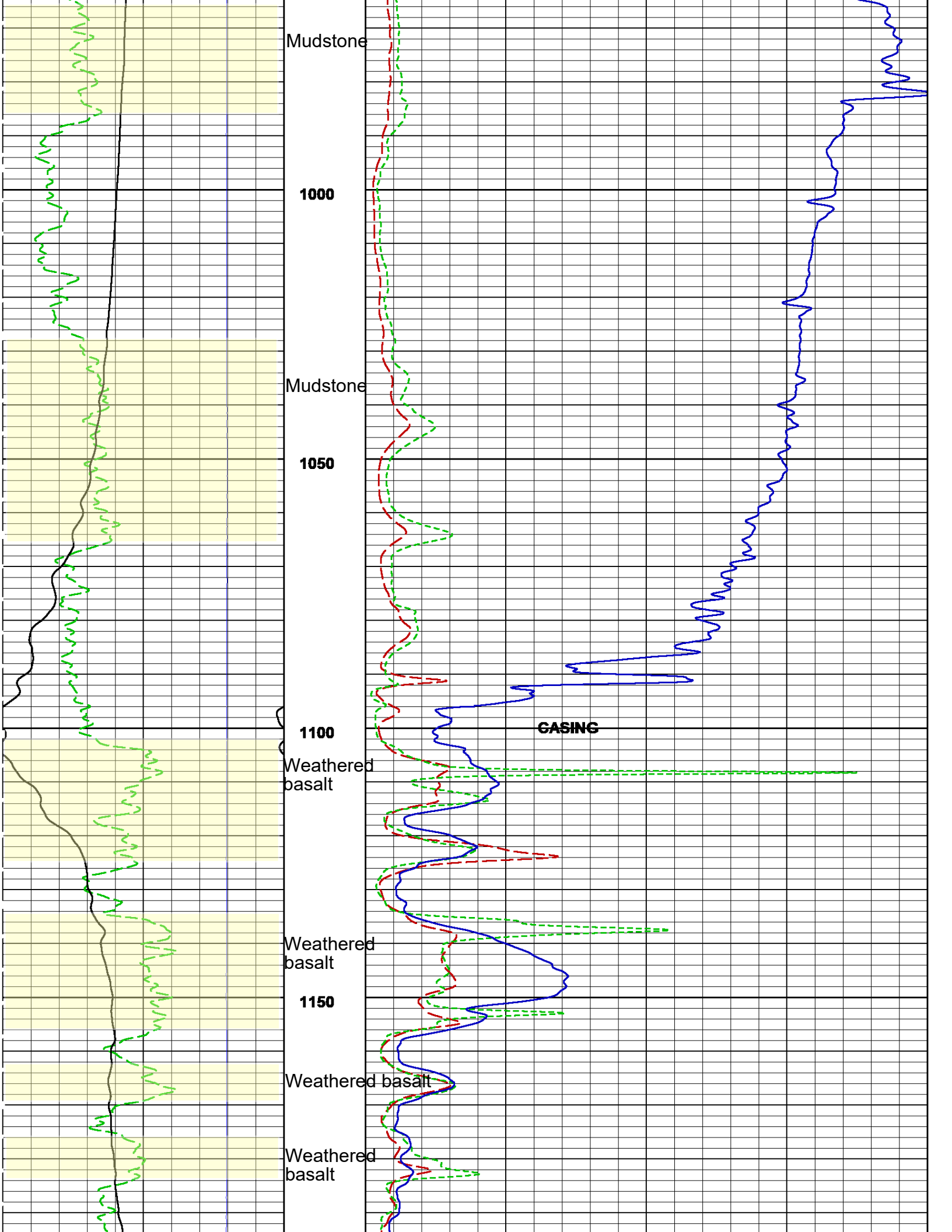


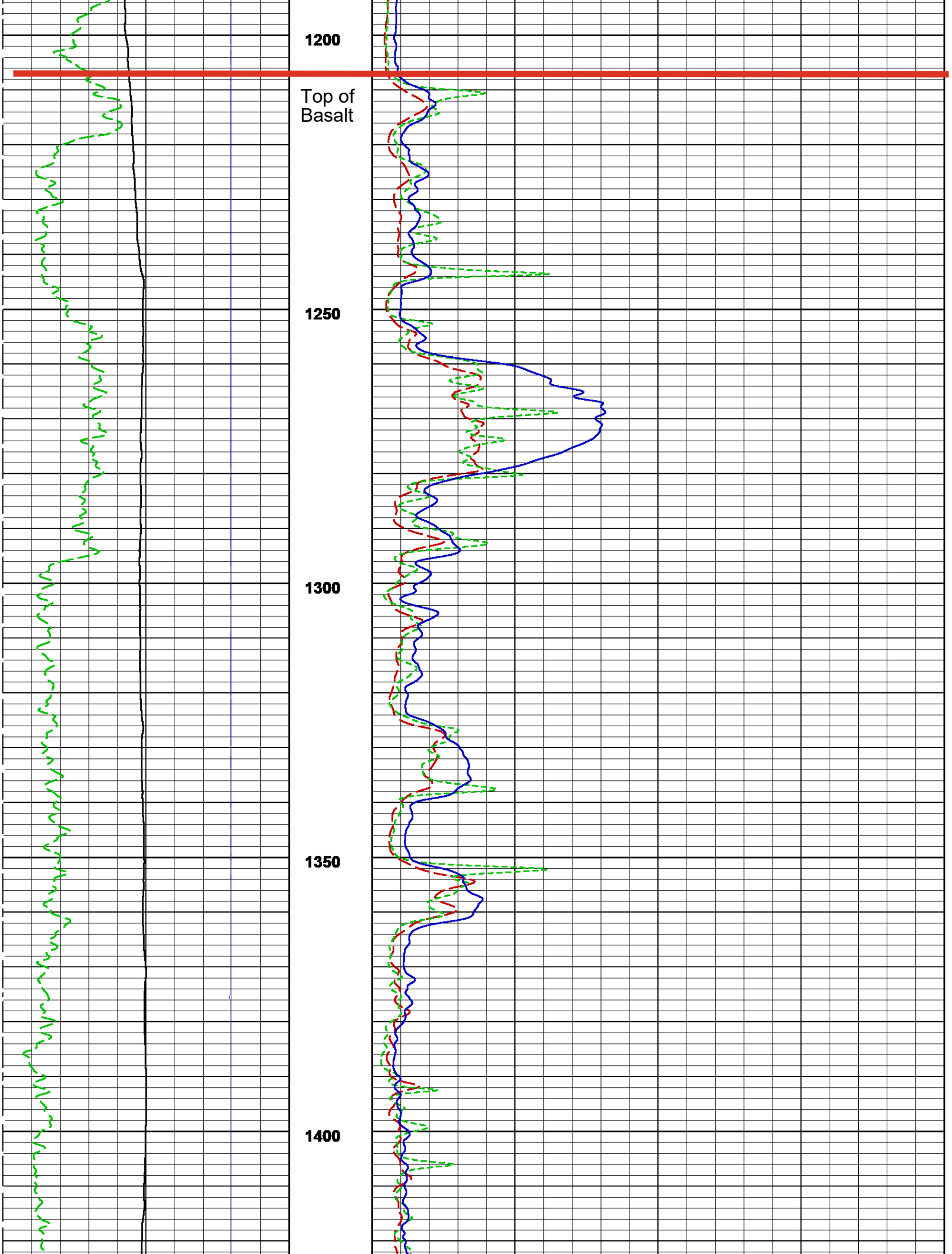

50
100
150
Mudstone
200
250

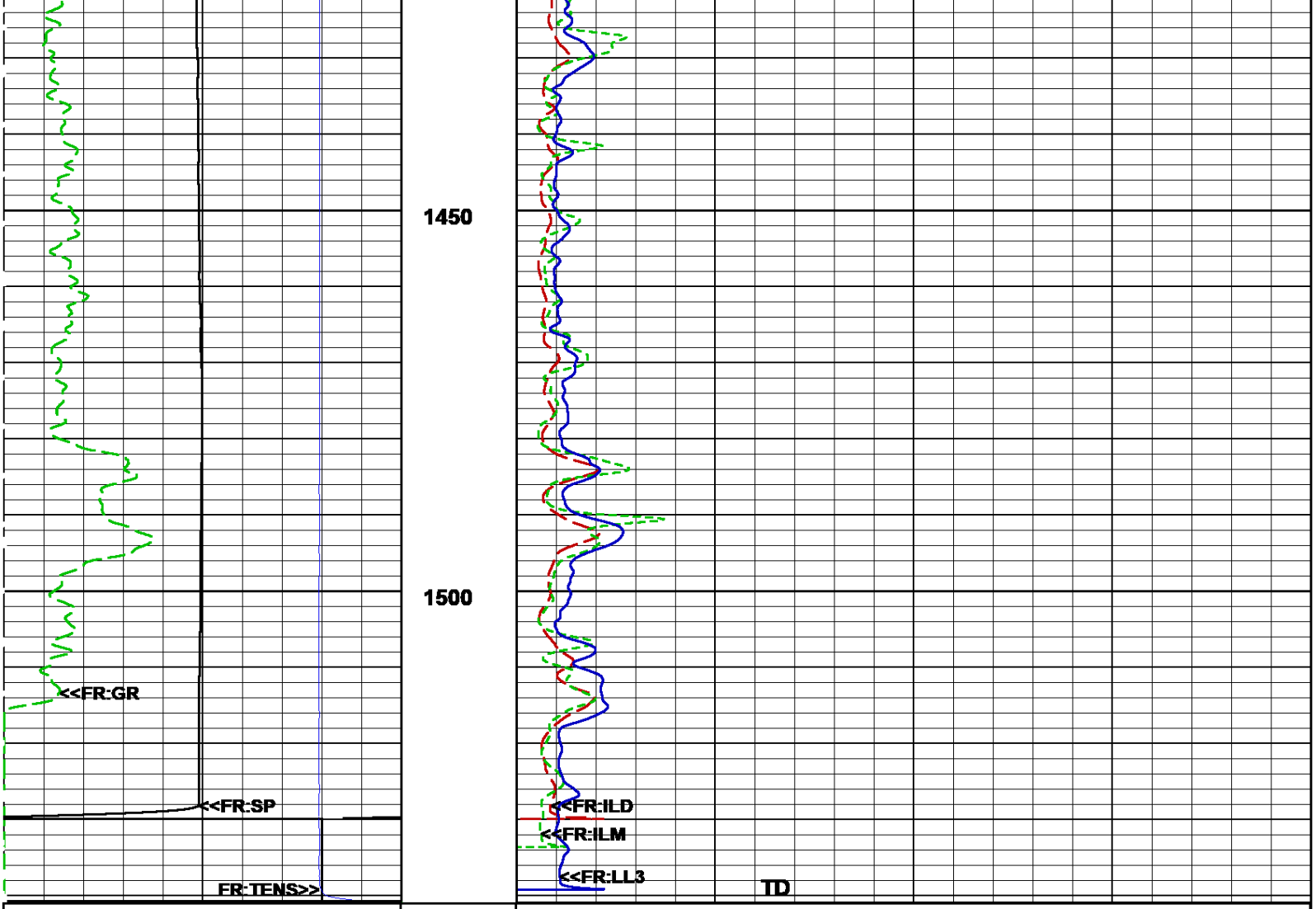

300
350
Mudstone
400
Mudstone
450
Mudstone
500


Mudstone
550
Mudstone
600
Mudstone
650
700


Mudstone
750
800
Mudstone
850
900
Mudstone
950


Mudstone
1000
Mudstone
1050
1100
CASING
Weathered basalt
Weathered basalt
1150
Weathered basalt
Weathered basalt


1200
Top of
Basalt
1250
1300
1350
1400



Gamma Ray (GR)		Deep Induction (ILD)
0. API 150.		0. ohmm 50.
Spontaneous (SP)		Medium Induction (ILM)
-160. Potential mV 40.		0. ohmm 50.
Tension (TENS)		Laterolog (LL3)
5000. Lbs 0.		0. ohmm 50.

05/22/2025
19:23:20 => Start Time

MAIN PASS (5"/100Ft)

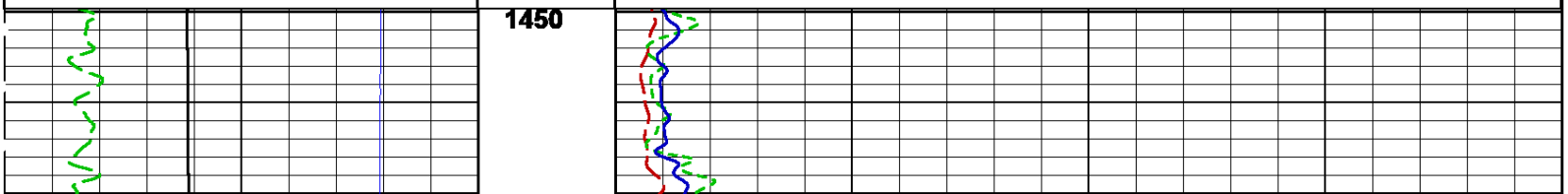
Log UP - (VER 12.51
Start Depth=> 1540.80 Feet

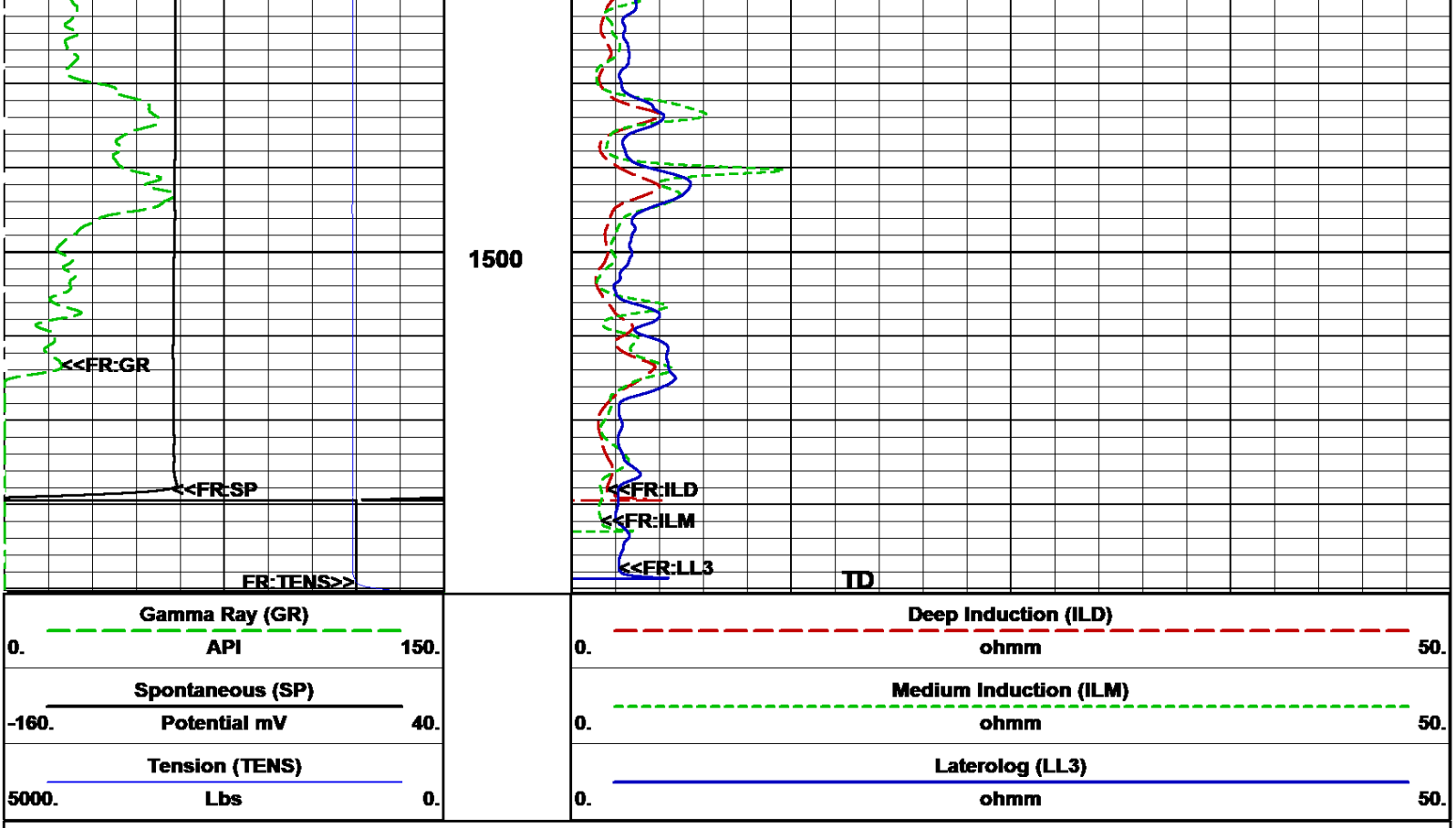
05/22/2025
19:21:06 => End Time

REPEAT PASS (5"/100Ft)

Log UP - (VER 12.51
End Depth=> 1449.90 Feet

Tension (TENS)		Laterolog (LL3)
5000. Lbs 0.		0. ohmm 50.
Spontaneous (SP)		Medium Induction (ILM)
-160. Potential mV 40.		0. ohmm 50.
Gamma Ray (GR)		Deep Induction (ILD)
0. API 150.		0. ohmm 50.





05/22/2025
19:15:59 => Start Time

REPEAT PASS (5"/100Ft)

Log UP - (VER 12.51
Start Depth=> 1540.40 Feet

Induction Resistivity / Conductivity Calibrations

TOOL TYPE	Slim Hole Induction	LOOP TYPE	TX
SERIAL NUM	RD1013	LOOP NUM	001

MASTER CALIBRATIONS

	OPEN LOOP(mmho)		CLOSED LOOP(mmho)		LOOP VERIFIER(mV)		CALIBRATION DATE	CALIBRATION TIME
	NO SKIN		NO SKIN	W/ SKIN	ZERO(mV)	SPAN(mV)		
DEEP INDUCTION	0.000		400.000	499.231	16.932	629.073	M/D/Y> 6/18/2024	H:M:S> 13:14:44
MED INDUCTION	0.000		462.500	501.895	18.097	815.202	M/D/Y> 12/8/2019	H:M:S> 21:5:47
	CALIBRATOR LOW(ohm)		CALIBRATOR HI(ohm)		LOW(mV)	HI(mV)		
SHALLOW LATERLOG	0.000		1480.000		0.360	7018.637	M/D/Y> 12/8/2019	H:M:S> 21:5:24

WELL SITE CALIBRATIONS

GAMMA RAY CALIBRATION

SERIAL NUM	RG3017
BLANKET NUM	1A

MASTER CALIBRATIONS					
	BackGrnd	CalVal: 158.000 API	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	178.515 - raw	803.056 - raw	0.253 - gain 0.000 - off	M/D/Y> 5/1/2025	H:M:S> 8:58:10

Company	INTERA INCORPORATED
Well	KALAELOA BASALT WELL #1805-15
Field	WATER WELL
Island	OAHU
State	HAWAII

RECON

DUAL INDUCTION
LATEROLOG - SP
GAMMA RAY

APPENDIX F

Aquifer Testing Field Data:
Water Level Manuals and Water Quality

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	4/21/2025	9:45	14.11	0	
Well 13	4/25/2025	14:11	12.82	0	
Well 13	4/26/2025	14:32	15.55	0	
Well 13	5/2/2025	13:21	15.64	0	
Well 13	5/12/2025	11:39	15.59	0	
Well 13	5/15/2025	9:48	15.63	0	
Well 13	5/15/2025	10:01	15.65	0	
Well 13	5/22/2025	10:59	15.50	0	
Well 13	5/22/2025	11:01	15.50	0	
Well 13	5/22/2025	13:43	15.41	0	
Well 13	5/30/2025	14:33	15.48	0	
Well 13	6/6/2025	10:25	15.52	0	
Well 13	6/6/2025	10:47	15.50	0	
Well 13	6/17/2025	15:05	15.53	0	
Well 13	6/18/2025	10:24	15.53	0	
Well 13	6/18/2025	10:35	15.53	0	
Well 13	6/23/2025	10:51	15.48	0	
Well 13	6/27/2025	15:24	15.46	0	
Well 13	6/27/2025	15:39	15.46	0	
Well 13	6/30/2025	13:35	15.59	0	
Well 13	7/3/2025	11:32	15.46	0	
Well 13	7/7/2025	7:36	15.61	0	
Well 13	7/7/2025	7:37	15.62	0	
Well 13	7/7/2025	7:37	15.62	0	
Well 13	7/7/2025	8:41	15.68	0	Well 15 Step Test - Step 1 (WLs monitored in Well 13)
Well 13	7/7/2025	8:47	15.72	0	
Well 13	7/7/2025	9:02	15.70	0	
Well 13	7/7/2025	9:11	15.70	0	
Well 13	7/7/2025	9:20	15.76	0	
Well 13	7/7/2025	9:21	15.73	0	
Well 13	7/7/2025	9:26	15.73	0	
Well 13	7/7/2025	9:37	15.76	0	
Well 13	7/7/2025	10:04	15.77	0	Well 15 Step Test - Step 2 (WLs monitored in Well 13)
Well 13	7/7/2025	10:07	15.78	0	
Well 13	7/7/2025	10:13	15.76	0	
Well 13	7/7/2025	10:16	15.78	0	
Well 13	7/7/2025	10:33	15.68	0	
Well 13	7/7/2025	10:47	15.68	0	
Well 13	7/7/2025	10:55	15.66	0	
Well 13	7/7/2025	11:51	15.70	0	Well 15 Step Test - Step 3 (WLs monitored in Well 13)
Well 13	7/7/2025	12:01	15.72	0	
Well 13	7/7/2025	12:13	15.71	0	
Well 13	7/7/2025	12:25	15.70	0	
Well 13	7/7/2025	12:32	15.78	0	Well 15 Step Test - Step 4 (WLs monitored in Well 13)
Well 13	7/7/2025	12:38	15.76	0	
Well 13	7/7/2025	12:46	15.78	0	
Well 13	7/7/2025	12:50	15.73	0	
Well 13	7/7/2025	12:51	15.79	0	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	7/7/2025	13:02	15.79	0	
Well 13	7/7/2025	14:31	15.51	0	Well 15 Step Test - Pump Off (WLs monitored in Well 13)
Well 13	7/7/2025	14:32	15.50	0	
Well 13	7/9/2025	8:38	15.59	0	
Well 13	7/9/2025	8:39	15.60	0	
Well 13	7/9/2025	8:40	15.61	0	
Well 13	7/9/2025	10:55	15.85	0	Well 15 Cycle Test - Cycle 1 On (WLs monitored in Well 13)
Well 13	7/9/2025	10:56	15.85	0	
Well 13	7/9/2025	10:58	15.86	0	
Well 13	7/9/2025	11:50	15.85	0	
Well 13	7/9/2025	11:51	15.84	0	
Well 13	7/9/2025	11:52	15.84	0	
Well 13	7/9/2025	13:49	15.75	0	
Well 13	7/9/2025	13:50	15.74	0	
Well 13	7/9/2025	13:51	15.74	0	
Well 13	7/9/2025	14:58	15.71	0	
Well 13	7/9/2025	14:59	15.69	0	
Well 13	7/9/2025	15:00	15.70	0	
Well 13	7/9/2025	16:38	15.42	0	Well 15 Cycle Test - Cycle 1 Off (WLs monitored in Well 13)
Well 13	7/9/2025	19:39	15.70	0	Well 15 Cycle Test - Cycle 2 On (WLs monitored in Well 13)
Well 13	7/9/2025	20:09	15.74	0	
Well 13	7/9/2025	21:53	15.79	0	
Well 13	7/9/2025	23:32	15.98	0	
Well 13	7/10/2025	1:30	15.59	0	
Well 13	7/10/2025	3:45	15.84	0	
Well 13	7/10/2025	5:50	15.69	0	
Well 13	7/10/2025	7:18	15.51	0	
Well 13	7/10/2025	7:47	15.70	0	Well 15 Cycle Test - Cycle 2 Off (WLs monitored in Well 13)
Well 13	7/10/2025	8:28	15.74	0	
Well 13	7/10/2025	9:10	15.69	0	
Well 13	7/10/2025	10:28	15.65	0	
Well 13	7/10/2025	10:47	15.71	0	
Well 13	7/10/2025	11:22	15.84	0	Well 15 Cycle Test - Cycle 3 On (WLs monitored in Well 13)
Well 13	7/10/2025	11:57	15.83	0	
Well 13	7/10/2025	12:36	15.94	0	
Well 13	7/10/2025	13:14	15.79	0	
Well 13	7/10/2025	13:39	15.77	0	
Well 13	7/10/2025	14:11	15.75	0	
Well 13	7/10/2025	14:51	17.76	0	
Well 13	7/10/2025	15:33	15.47	0	
Well 13	7/12/2025	8:30	15.67	0	Well 15 120-hr Test (WLs monitored in Well 13)
Well 13	7/12/2025	8:31	15.67	0	
Well 13	7/12/2025	8:38	15.68	0	
Well 13	7/12/2025	10:27	15.89	0	
Well 13	7/12/2025	11:26	15.91	0	
Well 13	7/12/2025	11:59	15.82	0	
Well 13	7/12/2025	12:56	15.80	0	
Well 13	7/12/2025	13:57	15.80	0	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	7/12/2025	15:04	15.89	0	
Well 13	7/12/2025	15:55	15.74	0	
Well 13	7/12/2025	16:59	15.75	0	
Well 13	7/12/2025	18:02	15.70	0	
Well 13	7/12/2025	19:00	15.78	0	
Well 13	7/12/2025	19:50	15.78	0	
Well 13	7/12/2025	22:50	15.80	0	
Well 13	7/13/2025	0:05	15.84	0	
Well 13	7/13/2025	3:15	15.85	0	
Well 13	7/13/2025	4:26	15.32	0	
Well 13	7/13/2025	7:08	15.84	0	
Well 13	7/13/2025	9:05	15.99	0	
Well 13	7/13/2025	9:57	15.95	0	
Well 13	7/13/2025	10:58	15.95	0	
Well 13	7/13/2025	11:55	15.90	0	
Well 13	7/13/2025	12:56	15.88	0	
Well 13	7/13/2025	14:01	15.88	0	
Well 13	7/13/2025	14:59	15.88	0	
Well 13	7/13/2025	15:57	15.80	0	
Well 13	7/13/2025	16:57	15.79	0	
Well 13	7/13/2025	17:58	15.77	0	
Well 13	7/13/2025	18:55	15.85	0	
Well 13	7/13/2025	19:59	15.75	0	
Well 13	7/13/2025	22:02	15.80	0	
Well 13	7/14/2025	0:02	15.76	0	
Well 13	7/14/2025	2:03	15.80	0	
Well 13	7/14/2025	4:04	15.82	0	
Well 13	7/14/2025	6:02	15.74	0	
Well 13	7/14/2025	8:03	15.80	0	
Well 13	7/14/2025	9:57	15.89	0	
Well 13	7/14/2025	10:05	15.90	0	
Well 13	7/14/2025	10:06	15.90	0	
Well 13	7/14/2025	11:08	15.91	0	
Well 13	7/14/2025	12:08	15.95	0	
Well 13	7/14/2025	13:01	16.15	0	
Well 13	7/14/2025	13:58	15.90	0	
Well 13	7/14/2025	14:57	15.92	0	
Well 13	7/14/2025	15:56	16.10	0	
Well 13	7/14/2025	17:01	16.00	0	
Well 13	7/14/2025	17:56	15.78	0	
Well 13	7/14/2025	18:59	15.80	0	
Well 13	7/14/2025	19:56	15.77	0	
Well 13	7/14/2025	22:08	15.78	0	
Well 13	7/15/2025	0:10	15.93	0	
Well 13	7/15/2025	2:20	15.70	0	
Well 13	7/15/2025	4:09	15.83	0	
Well 13	7/15/2025	6:08	15.82	0	
Well 13	7/15/2025	8:07	15.84	0	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	7/15/2025	9:00	15.90	0	
Well 13	7/15/2025	10:00	10.50	0	
Well 13	7/15/2025	11:00	15.86	0	
Well 13	7/15/2025	10:59	15.95	0	
Well 13	7/15/2025	11:59	15.90	0	
Well 13	7/15/2025	12:57	16.30	0	
Well 13	7/15/2025	13:56	16.05	0	
Well 13	7/15/2025	14:55	15.95	0	
Well 13	7/15/2025	16:03	15.88	0	
Well 13	7/15/2025	16:58	15.95	0	
Well 13	7/15/2025	17:55	15.86	0	
Well 13	7/15/2025	18:58	15.85	0	
Well 13	7/15/2025	20:02	15.95	0	
Well 13	7/15/2025	22:07	15.95	0	
Well 13	7/16/2025	0:07	16.05	0	
Well 13	7/16/2025	2:13	15.95	0	
Well 13	7/16/2025	4:40	15.90	0	
Well 13	7/16/2025	6:04	15.95	0	
Well 13	7/16/2025	8:11	15.63	0	
Well 13	7/16/2025	8:56	15.85	0	
Well 13	7/16/2025	9:59	15.90	0	
Well 13	7/16/2025	11:01	15.90	0	
Well 13	7/16/2025	11:57	16.10	0	
Well 13	7/16/2025	13:00	15.89	0	
Well 13	7/16/2025	13:58	15.90	0	
Well 13	7/16/2025	15:00	15.95	0	
Well 13	7/16/2025	15:58	15.85	0	
Well 13	7/16/2025	16:58	15.80	0	
Well 13	7/16/2025	17:59	15.95	0	
Well 13	7/16/2025	18:57	15.80	0	
Well 13	7/16/2025	19:58	15.78	0	
Well 13	7/16/2025	21:50	15.77	0	
Well 13	7/17/2025	23:59	15.85	0	
Well 13	7/17/2025	1:51	15.86	0	
Well 13	7/17/2025	4:00	15.87	0	
Well 13	7/17/2025	5:53	15.89	0	
Well 13	7/17/2025	7:53	15.83	0	
Well 13	7/17/2025	8:48	15.81	0	
Well 13	7/17/2025	9:45	15.80	0	
Well 13	7/17/2025	11:16	15.55	0	
Well 13	7/28/2025	8:27	15.39	0	
Well 13	7/28/2025	8:29	15.38	0	
Well 13	7/28/2025	8:30	15.38	0	
Well 13	7/28/2025	9:00	15.35	0	
Well 13	7/28/2025	9:15	15.40	0	
Well 13	7/28/2025	9:33	15.41	0	Well 14 Step Test - Step 1 (WLs monitored in Well 13)
Well 13	7/28/2025	9:59	15.46	0	
Well 13	7/28/2025	10:17	15.36	0	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	7/28/2025	10:37	15.38	0	
Well 13	7/28/2025	10:57	15.39	0	
Well 13	7/28/2025	11:15	15.42	0	Well 14 Step Test - Step 2 (WLs monitored in Well 13)
Well 13	7/28/2025	11:16	15.41	0	
Well 13	7/28/2025	11:39	15.39	0	
Well 13	7/28/2025	11:55	15.41	0	
Well 13	7/28/2025	12:05	15.40	0	
Well 13	7/28/2025	12:42	15.40	0	Well 14 Step Test - Step 3 (WLs monitored in Well 13)
Well 13	7/28/2025	13:42	15.38	0	
Well 13	7/28/2025	14:02	15.38	0	
Well 13	7/28/2025	14:58	15.33	0	Well 14 Step Test - Step 4 (WLs monitored in Well 13)
Well 13	7/28/2025	15:17	15.32	0	
Well 13	7/28/2025	16:22	15.29	0	Well 15 Step Test - Pump Off (WLs monitored in Well 13)
Well 13	7/28/2025	16:50	15.27	0	
Well 13	7/30/2025	9:03	15.34	0	
Well 13	7/30/2025	9:11	15.34	0	
Well 13	7/30/2025	9:47	15.33	0	Well 14 120-hr Test (WLs monitored in Well 13)
Well 13	7/30/2025	9:48	15.33	0	
Well 13	7/30/2025	9:52	15.33	0	
Well 13	7/30/2025	10:21	15.37	0	
Well 13	7/30/2025	10:57	15.34	0	
Well 13	7/30/2025	12:03	15.34	0	
Well 13	7/30/2025	13:03	15.35	0	
Well 13	7/30/2025	14:03	15.28	0	
Well 13	7/30/2025	15:06	15.35	0	
Well 13	7/30/2025	16:02	15.36	0	
Well 13	7/30/2025	16:58	15.40	0	
Well 13	7/30/2025	18:00	15.30	0	
Well 13	7/30/2025	18:59	15.33	0	
Well 13	7/30/2025	19:59	15.31	0	
Well 13	7/30/2025	20:59	15.35	0	
Well 13	7/30/2025	21:59	15.34	0	
Well 13	7/30/2025	22:59	15.34	0	
Well 13	7/30/2025	23:58	15.40	0	
Well 13	7/31/2025	0:57	15.41	0	
Well 13	7/31/2025	1:56	15.40	0	
Well 13	7/31/2025	2:57	15.39	0	
Well 13	7/31/2025	3:56	15.40	0	
Well 13	7/31/2025	5:57	13.35	0	
Well 13	7/31/2025	7:04	15.35	0	
Well 13	7/31/2025	8:02	15.30	0	
Well 13	7/31/2025	9:04	15.31	0	
Well 13	7/31/2025	11:04	15.25	0	
Well 13	7/31/2025	13:00	15.29	0	
Well 13	7/31/2025	13:58	15.29	0	
Well 13	7/31/2025	14:58	15.30	0	
Well 13	7/31/2025	15:59	15.29	0	
Well 13	7/31/2025	16:59	15.30	0	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	7/31/2025	17:57	15.29	0	
Well 13	7/31/2025	18:57	15.29	0	
Well 13	7/31/2025	19:57	15.30	0	
Well 13	7/31/2025	20:59	15.32	0	
Well 13	7/31/2025	21:58	15.34	0	
Well 13	7/31/2025	22:58	15.35	0	
Well 13	7/31/2025	23:58	15.34	0	
Well 13	8/1/2025	0:58	15.38	0	
Well 13	8/1/2025	1:58	15.39	0	
Well 13	8/1/2025	2:57	15.23	0	
Well 13	8/1/2025	3:58	15.40	0	
Well 13	8/1/2025	4:59	15.38	0	
Well 13	8/1/2025	5:57	15.37	0	
Well 13	8/1/2025	8:59	15.35	0	
Well 13	8/1/2025	8:59	15.33	0	
Well 13	8/1/2025	11:02	15.32	0	
Well 13	8/1/2025	12:59	15.28	0	
Well 13	8/1/2025	13:59	15.28	0	
Well 13	8/1/2025	14:58	15.28	0	
Well 13	8/1/2025	15:58	15.26	0	
Well 13	8/1/2025	16:57	15.30	0	
Well 13	8/1/2025	17:58	15.30	0	
Well 13	8/1/2025	18:57	15.35	0	
Well 13	8/1/2025	19:59	15.32	0	
Well 13	8/1/2025	20:58	13.32	0	
Well 13	8/1/2025	21:59	15.33	0	
Well 13	8/1/2025	22:59	15.33	0	
Well 13	8/1/2025	23:57	13.35	0	
Well 13	8/2/2025	1:03	15.38	0	
Well 13	8/2/2025	2:09	15.34	0	
Well 13	8/2/2025	3:05	15.34	0	
Well 13	8/2/2025	4:07	15.38	0	
Well 13	8/2/2025	6:05	15.37	0	
Well 13	8/2/2025	7:09	15.37	0	
Well 13	8/2/2025	8:05	15.38	0	
Well 13	8/2/2025	9:04	15.37	0	
Well 13	8/2/2025	9:55	15.30	0	
Well 13	8/2/2025	10:52	15.27	0	
Well 13	8/2/2025	12:02	15.25	0	
Well 13	8/2/2025	12:57	15.25	0	
Well 13	8/2/2025	13:57	15.20	0	
Well 13	8/2/2025	15:00	15.25	0	
Well 13	8/2/2025	15:57	15.27	0	
Well 13	8/2/2025	16:58	15.28	0	
Well 13	8/2/2025	17:58	15.32	0	
Well 13	8/2/2025	19:01	15.26	0	
Well 13	8/2/2025	20:01	15.30	0	
Well 13	8/2/2025	21:07	15.31	0	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/2/2025	21:57	15.33	0	
Well 13	8/2/2025	23:01	15.30	0	
Well 13	8/2/2025	23:53	15.35	0	
Well 13	8/3/2025	0:53	15.35	0	
Well 13	8/3/2025	1:54	15.36	0	
Well 13	8/3/2025	3:05	15.38	0	
Well 13	8/3/2025	4:02	15.34	0	
Well 13	8/3/2025	5:09	15.36	0	
Well 13	8/3/2025	6:06	15.35	0	
Well 13	8/3/2025	7:06	15.36	0	
Well 13	8/3/2025	8:09	15.36	0	
Well 13	8/3/2025	9:02	15.33	0	
Well 13	8/3/2025	10:03	15.30	0	
Well 13	8/3/2025	11:03	15.27	0	
Well 13	8/3/2025	11:55	15.22	0	
Well 13	8/3/2025	12:56	15.23	0	
Well 13	8/3/2025	14:01	15.22	0	
Well 13	8/3/2025	14:57	15.20	0	
Well 13	8/3/2025	15:57	15.21	0	
Well 13	8/3/2025	18:02	15.22	0	
Well 13	8/3/2025	19:00	15.25	0	
Well 13	8/3/2025	20:04	15.30	0	
Well 13	8/3/2025	21:00	15.34	0	
Well 13	8/3/2025	22:03	15.31	0	
Well 13	8/3/2025	23:02	15.28	0	
Well 13	8/4/2025	0:19	15.35	0	
Well 13	8/4/2025	1:02	15.32	0	
Well 13	8/4/2025	2:03	15.29	0	
Well 13	8/4/2025	3:21	15.35	0	
Well 13	8/4/2025	4:04	15.40	0	
Well 13	8/4/2025	5:01	15.37	0	
Well 13	8/4/2025	6:03	15.35	0	
Well 13	8/4/2025	7:00	15.35	0	
Well 13	8/4/2025	8:03	15.35	0	
Well 13	8/4/2025	9:02	14.38	0	
Well 13	8/4/2025	10:07	15.34	0	
Well 13	8/11/2025	7:26	14.83	0	
Well 13	8/11/2025	7:43	14.83	0	
Well 13	8/11/2025	8:02	14.82	0	
Well 13	8/11/2025	8:28	14.82	0	
Well 13	8/11/2025	8:47	14.83	0	
Well 13	8/11/2025	8:51	14.84	0	
Well 13	8/11/2025	8:56	14.85	0	
Well 13	8/11/2025	9:03	14.85	0	
Well 13	8/11/2025	9:10	14.85	0	
Well 13	8/11/2025	9:39	14.87	0	
Well 13	8/11/2025	9:45	14.88	0	
Well 13	8/11/2025	9:45	n/a	540	Well 13 Step Test - Step 1

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/11/2025	9:45	n/a	751	
Well 13	8/11/2025	9:45	n/a	1373	
Well 13	8/11/2025	9:45	n/a	1899	
Well 13	8/11/2025	9:45	n/a	2323	
Well 13	8/11/2025	9:45	n/a	2360	
Well 13	8/11/2025	9:45	n/a	2386	
Well 13	8/11/2025	9:46	17.55	2280	
Well 13	8/11/2025	9:46	17.56	1964	
Well 13	8/11/2025	9:47	18.00	1785	
Well 13	8/11/2025	9:48	15.76	1567	
Well 13	8/11/2025	9:49	17.46	1555	
Well 13	8/11/2025	9:49	16.41	1558	
Well 13	8/11/2025	9:50	17.46	1558	
Well 13	8/11/2025	9:50	16.74	1540	
Well 13	8/11/2025	9:51	17.61	1528	
Well 13	8/11/2025	9:51	17.66	1529	
Well 13	8/11/2025	9:52	17.67	1535	
Well 13	8/11/2025	9:53	17.71	1540	
Well 13	8/11/2025	9:54	17.76	1539	
Well 13	8/11/2025	9:56	15.25	1533	
Well 13	8/11/2025	9:57	15.54	1527	
Well 13	8/11/2025	9:58	17.83	1531	
Well 13	8/11/2025	9:59	17.94	1529	
Well 13	8/11/2025	10:00	17.90	1524	
Well 13	8/11/2025	10:04	17.97	1524	
Well 13	8/11/2025	10:07	17.86	1524	
Well 13	8/11/2025	10:09	17.91	1526	
Well 13	8/11/2025	10:13	17.83	1523	
Well 13	8/11/2025	10:15	17.87	1523	
Well 13	8/11/2025	10:20	17.95	1521	
Well 13	8/11/2025	10:25	17.93	1518	
Well 13	8/11/2025	10:30	17.92	1517	
Well 13	8/11/2025	10:35	17.97	1517	
Well 13	8/11/2025	10:41	17.93	1519	
Well 13	8/11/2025	10:45	17.93	1522	
Well 13	8/11/2025	10:55	17.92	1522	
Well 13	8/11/2025	11:05	17.88	1516	
Well 13	8/11/2025	11:15	17.93	1512	
Well 13	8/11/2025	11:23	n/a	1525	Well 13 Step Test - Step 2
Well 13	8/11/2025	n/a	n/a	1575	
Well 13	8/11/2025	n/a	n/a	1600	
Well 13	8/11/2025	11:24	17.29	1766	
Well 13	8/11/2025	11:24	18.89	1873	
Well 13	8/11/2025	11:24	18.97	1897	
Well 13	8/11/2025	11:25	18.71	1920	
Well 13	8/11/2025	11:25	18.94	1945	
Well 13	8/11/2025	11:26	18.71	1951	
Well 13	8/11/2025	11:27	18.74	1987	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/11/2025	11:27	18.83	2008	
Well 13	8/11/2025	11:28	18.91	1993	
Well 13	8/11/2025	11:29	18.75	1997	
Well 13	8/11/2025	11:31	18.75	1998	
Well 13	8/11/2025	11:33	18.72	1993	
Well 13	8/11/2025	11:36	18.74	1996	
Well 13	8/11/2025	11:39	18.77	1992	
Well 13	8/11/2025	11:42	18.70	1999	
Well 13	8/11/2025	11:47	18.80	1993	
Well 13	8/11/2025	11:53	18.73	1986	
Well 13	8/11/2025	11:59	18.74	1989	
Well 13	8/11/2025	12:05	18.72	1992	
Well 13	8/11/2025	12:11	18.70	1989	
Well 13	8/11/2025	12:16	18.68	1980	
Well 13	8/11/2025	12:21	18.68	1987	
Well 13	8/11/2025	12:26	18.72	1985	
Well 13	8/11/2025	12:36	18.68	1985	
Well 13	8/11/2025	12:48	18.71	1987	
Well 13	8/11/2025	13:06	18.74	1983	
Well 13	8/11/2025	13:06	n/a	1985	Well 13 Step Test - Step 3
Well 13	8/11/2025	n/a	n/a	1988	
Well 13	8/11/2025	n/a	n/a	2014	
Well 13	8/11/2025	13:06	19.94	2077	
Well 13	8/11/2025	13:07	19.54	2406	
Well 13	8/11/2025	13:08	19.80	2455	
Well 13	8/11/2025	13:08	19.74	2477	
Well 13	8/11/2025	13:09	19.70	2481	
Well 13	8/11/2025	13:11	19.71	2488	
Well 13	8/11/2025	13:11	19.72	2489	
Well 13	8/11/2025	13:13	19.74	2490	
Well 13	8/11/2025	13:15	19.70	2495	
Well 13	8/11/2025	13:17	19.79	2495	
Well 13	8/11/2025	13:20	19.74	2497	
Well 13	8/11/2025	13:24	19.72	2492	
Well 13	8/11/2025	13:29	19.70	2495	
Well 13	8/11/2025	13:35	19.70	2489	
Well 13	8/11/2025	13:43	19.74	2495	
Well 13	8/11/2025	13:49	19.71	2494	
Well 13	8/11/2025	14:03	19.65	2496	
Well 13	8/11/2025	14:18	19.70	2496	
Well 13	8/11/2025	14:31	19.70	2492	
Well 13	8/11/2025	14:32	n/a	2493	Well 13 Step Test - Step 4
Well 13	8/11/2025	14:32	n/a	2569	
Well 13	8/11/2025	14:32	n/a	2600	
Well 13	8/11/2025	14:32	21.68	2755	
Well 13	8/11/2025	14:33	21.00	2990	
Well 13	8/11/2025	14:34	21.73	2074	
Well 13	8/11/2025	14:34	21.35	3208	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/11/2025	14:35	21.50	3215	
Well 13	8/11/2025	14:36	21.50	3216	
Well 13	8/11/2025	14:38	21.47	3212	
Well 13	8/11/2025	14:40	21.45	3213	
Well 13	8/11/2025	14:43	21.48	3219	
Well 13	8/11/2025	14:46	21.47	3218	
Well 13	8/11/2025	14:49	21.40	3213	
Well 13	8/11/2025	14:53	21.35	3211	
Well 13	8/11/2025	14:58	21.45	3210	
Well 13	8/11/2025	15:04	21.40	3212	
Well 13	8/11/2025	15:11	21.38	3210	
Well 13	8/11/2025	15:16	21.44	3201	
Well 13	8/11/2025	15:21	21.38	3200	
Well 13	8/11/2025	15:28	21.35	3206	
Well 13	8/11/2025	15:32	21.45	3207	
Well 13	8/11/2025	15:44	21.36	3201	
Well 13	8/11/2025	15:46	n/a	0	Well 13 - Step Test Pump Shut Off
Well 13	8/11/2025	15:46	11.35	0	
Well 13	8/11/2025	15:47	14.64	0	
Well 13	8/11/2025	15:48	17.08	0	
Well 13	8/11/2025	15:49	17.52	0	
Well 13	8/11/2025	15:50	16.35	0	
Well 13	8/11/2025	15:51	16.79	0	
Well 13	8/11/2025	15:51	16.90	0	
Well 13	8/11/2025	15:53	16.39	0	
Well 13	8/11/2025	15:56	16.45	0	
Well 13	8/11/2025	15:58	16.44	0	
Well 13	8/11/2025	16:02	16.44	0	
Well 13	8/11/2025	16:05	16.38	0	
Well 13	8/11/2025	16:08	16.38	0	
Well 13	8/11/2025	16:11	16.38	0	
Well 13	8/11/2025	16:16	16.37	0	
Well 13	8/11/2025	16:20	16.37	0	
Well 13	8/11/2025	16:27	16.40	0	
Well 13	8/11/2025	16:31	16.32	0	
Well 13	8/11/2025	16:36	16.30	0	
Well 13	8/11/2025	16:41	16.30	0	
Well 13	8/13/2025	9:15	15.18	0	
Well 13	8/13/2025	9:55	15.18	0	
Well 13	8/13/2025	10:00	15.18	0	
Well 13	8/13/2025	10:01	16.39	2700	Well 13 Cycle Test - Cycle 1 On
Well 13	8/13/2025	10:01	17.89	2754	
Well 13	8/13/2025	10:02	18.26	2746	
Well 13	8/13/2025	10:02	19.50	2768	
Well 13	8/13/2025	10:03	19.79	2775	
Well 13	8/13/2025	10:04	20.01	2819	
Well 13	8/13/2025	10:05	20.11	2806	
Well 13	8/13/2025	10:05	20.18	2820	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/13/2025	10:06	20.28	2802	
Well 13	8/13/2025	10:07	20.27	2806	
Well 13	8/13/2025	10:08	20.30	2812	
Well 13	8/13/2025	10:08	20.30	2800	
Well 13	8/13/2025	10:09	20.34	2809	
Well 13	8/13/2025	10:10	20.34	2812	
Well 13	8/13/2025	10:11	20.32	2808	
Well 13	8/13/2025	10:14	20.30	2804	
Well 13	8/13/2025	10:17	20.28	2791	
Well 13	8/13/2025	10:20	20.29	2780	
Well 13	8/13/2025	10:23	20.29	2776	
Well 13	8/13/2025	10:27	20.22	2763	
Well 13	8/13/2025	10:30	20.27	2758	
Well 13	8/13/2025	10:36	20.23	2756	
Well 13	8/13/2025	10:40	20.25	2764	
Well 13	8/13/2025	10:45	20.22	2764	
Well 13	8/13/2025	10:50	20.33	2763	
Well 13	8/13/2025	10:55	20.28	2764	
Well 13	8/13/2025	11:01	20.30	2766	
Well 13	8/13/2025	11:31	20.29	2760	
Well 13	8/13/2025	12:00	20.29	2755	
Well 13	8/13/2025	12:30	20.30	2760	
Well 13	8/13/2025	13:00	20.30	2750	
Well 13	8/13/2025	13:30	20.30	2759	
Well 13	8/13/2025	14:00	20.23	2740	
Well 13	8/13/2025	14:30	20.22	2740	
Well 13	8/13/2025	15:00	20.23	2742	
Well 13	8/13/2025	15:01	n/a	0	Well 13 Cycle Test - Cycle 1 Off
Well 13	8/13/2025	15:02	14.75	0	
Well 13	8/13/2025	15:03	19.25	0	
Well 13	8/13/2025	15:03	19.69	0	
Well 13	8/13/2025	15:04	17.95	0	
Well 13	8/13/2025	15:05	17.85	0	
Well 13	8/13/2025	15:05	17.49	0	
Well 13	8/13/2025	15:06	16.15	0	
Well 13	8/13/2025	15:06	17.03	0	
Well 13	8/13/2025	15:07	16.65	0	
Well 13	8/13/2025	15:07	16.85	0	
Well 13	8/13/2025	15:07	16.55	0	
Well 13	8/13/2025	15:07	16.80	0	
Well 13	8/13/2025	15:08	16.58	0	
Well 13	8/13/2025	15:08	16.64	0	
Well 13	8/13/2025	15:09	16.54	0	
Well 13	8/13/2025	15:09	16.42	0	
Well 13	8/13/2025	15:09	16.43	0	
Well 13	8/13/2025	15:10	16.50	0	
Well 13	8/13/2025	15:13	16.45	0	
Well 13	8/13/2025	15:16	16.45	0	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/13/2025	15:18	16.45	0	
Well 13	8/13/2025	15:21	16.43	0	
Well 13	8/13/2025	15:27	16.40	0	
Well 13	8/13/2025	15:33	16.40	0	
Well 13	8/13/2025	15:42	16.38	0	
Well 13	8/13/2025	15:52	16.35	0	
Well 13	8/13/2025	16:02	16.34	0	
Well 13	8/13/2025	16:30	16.30	0	
Well 13	8/13/2025	17:00	16.25	0	
Well 13	8/13/2025	17:30	16.22	0	
Well 13	8/13/2025	18:00	16.25	0	
Well 13	8/13/2025	18:58	16.13	0	
Well 13	8/13/2025	19:00	19.15	2235	Well 13 Cycle Test - Cycle 2 On
Well 13	8/13/2025	19:01	19.95	2235	
Well 13	8/13/2025	19:02	18.95	2332	
Well 13	8/13/2025	19:03	20.97	2719	
Well 13	8/13/2025	19:04	20.55	2717	
Well 13	8/13/2025	19:04	20.13	2761	
Well 13	8/13/2025	19:05	20.17	2767	
Well 13	8/13/2025	19:06	20.32	2792	
Well 13	8/13/2025	19:06	20.40	2790	
Well 13	8/13/2025	19:08	20.38	2835	
Well 13	8/13/2025	19:08	20.50	2836	
Well 13	8/13/2025	19:12	20.45	2839	
Well 13	8/13/2025	19:13	20.41	2839	
Well 13	8/13/2025	19:14	20.40	2822	
Well 13	8/13/2025	19:15	20.35	2821	
Well 13	8/13/2025	19:17	20.43	2804	
Well 13	8/13/2025	19:19	20.39	2799	
Well 13	8/13/2025	19:21	20.37	2795	
Well 13	8/13/2025	19:24	20.35	2803	
Well 13	8/13/2025	19:27	20.36	2800	
Well 13	8/13/2025	19:30	20.33	2805	
Well 13	8/13/2025	19:36	20.44	2807	
Well 13	8/13/2025	19:40	20.38	2803	
Well 13	8/13/2025	19:45	20.38	2805	
Well 13	8/13/2025	19:50	20.30	2801	
Well 13	8/13/2025	19:53	20.31	2801	
Well 13	8/13/2025	19:56	20.37	2807	
Well 13	8/13/2025	20:01	20.39	2806	
Well 13	8/13/2025	21:00	20.36	2797	
Well 13	8/13/2025	22:04	20.38	2796	
Well 13	8/13/2025	22:59	20.45	2798	
Well 13	8/14/2025	0:01	20.39	2792	
Well 13	8/14/2025	1:00	20.44	2798	
Well 13	8/14/2025	2:00	20.42	2800	
Well 13	8/14/2025	3:00	20.45	2800	
Well 13	8/14/2025	4:00	20.38	2788	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/14/2025	5:00	20.39	2794	
Well 13	8/14/2025	6:13	20.34	2795	
Well 13	8/14/2025	6:55	20.34	2799	
Well 13	8/14/2025	7:08	n/a	0	Well 13 Cycle Test - Cycle 2 Off
Well 13	8/14/2025	7:11	18.15	0	
Well 13	8/14/2025	7:12	16.90	0	
Well 13	8/14/2025	7:13	16.48	0	
Well 13	8/14/2025	7:14	16.87	0	
Well 13	8/14/2025	7:15	16.70	0	
Well 13	8/14/2025	7:16	16.58	0	
Well 13	8/14/2025	7:17	16.55	0	
Well 13	8/14/2025	7:18	16.47	0	
Well 13	8/14/2025	7:19	16.48	0	
Well 13	8/14/2025	7:21	16.47	0	
Well 13	8/14/2025	7:25	16.47	0	
Well 13	8/14/2025	7:32	16.43	0	
Well 13	8/14/2025	7:41	16.42	0	
Well 13	8/14/2025	7:52	16.39	0	
Well 13	8/14/2025	8:01	16.38	0	
Well 13	8/14/2025	8:29	16.33	0	
Well 13	8/14/2025	9:04	16.28	0	
Well 13	8/14/2025	9:30	16.24	0	
Well 13	8/14/2025	10:02	16.23	0	
Well 13	8/14/2025	10:30	16.23	0	
Well 13	8/14/2025	11:00	19.75	2438	Well 13 Cycle Test - Cycle 3 On
Well 13	8/14/2025	11:01	19.69	2438	
Well 13	8/14/2025	11:02	19.44	2573	
Well 13	8/14/2025	11:02	19.91	2650	
Well 13	8/14/2025	11:03	20.20	2769	
Well 13	8/14/2025	11:04	20.08	2771	
Well 13	8/14/2025	11:05	20.29	2816	
Well 13	8/14/2025	11:07	20.38	2815	
Well 13	8/14/2025	11:07	20.35	2817	
Well 13	8/14/2025	11:08	20.36	2813	
Well 13	8/14/2025	11:08	20.31	2807	
Well 13	8/14/2025	11:10	20.31	2810	
Well 13	8/14/2025	11:13	20.20	2745	
Well 13	8/14/2025	11:15	20.23	2755	
Well 13	8/14/2025	11:20	20.28	2763	
Well 13	8/14/2025	11:25	20.28	2764	
Well 13	8/14/2025	11:30	20.24	2761	
Well 13	8/14/2025	11:45	20.22	2761	
Well 13	8/14/2025	12:00	20.24	2760	
Well 13	8/14/2025	12:30	20.30	2762	
Well 13	8/14/2025	13:00	20.25	2761	
Well 13	8/14/2025	13:30	20.33	2755	
Well 13	8/14/2025	14:01	20.30	2762	
Well 13	8/14/2025	14:31	20.23	2755	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/14/2025	15:01	20.27	2747	
Well 13	8/14/2025	15:30	20.18	2747	
Well 13	8/14/2025	16:00	20.16	2740	
Well 13	8/14/2025	16:02	14.80	0	Well 13 Cycle Test - Cycle 2 Off
Well 13	8/14/2025	16:03	19.10	0	
Well 13	8/14/2025	16:04	19.40	0	
Well 13	8/14/2025	16:04	19.51	0	
Well 13	8/14/2025	16:05	19.50	0	
Well 13	8/14/2025	16:05	17.80	0	
Well 13	8/14/2025	16:06	17.55	0	
Well 13	8/14/2025	16:06	17.23	0	
Well 13	8/14/2025	16:07	17.07	0	
Well 13	8/14/2025	16:09	16.44	0	
Well 13	8/14/2025	16:10	16.54	0	
Well 13	8/14/2025	16:15	16.65	0	
Well 13	8/14/2025	16:20	16.43	0	
Well 13	8/14/2025	16:25	16.48	0	
Well 13	8/16/2025	9:29	15.28	0	
Well 13	8/16/2025	9:30	15.25	0	
Well 13	8/16/2025	10:01	19.13	0	
Well 13	8/16/2025	10:02	20.17	2711	Well 13 120-hr Test - Pump On
Well 13	8/16/2025	10:02	20.12	2774	
Well 13	8/16/2025	10:03	19.95	2780	
Well 13	8/16/2025	10:04	19.98	2875	
Well 13	8/16/2025	10:04	20.08	2812	
Well 13	8/16/2025	10:05	20.13	2818	
Well 13	8/16/2025	10:05	20.14	2820	
Well 13	8/16/2025	10:06	20.14	2824	
Well 13	8/16/2025	10:06	20.18	2824	
Well 13	8/16/2025	10:07	20.28	2828	
Well 13	8/16/2025	10:07	20.28	2832	
Well 13	8/16/2025	10:08	20.31	2825	
Well 13	8/16/2025	10:09	20.32	2828	
Well 13	8/16/2025	10:10	20.32	2825	
Well 13	8/16/2025	10:10	20.34	2829	
Well 13	8/16/2025	10:11	20.33	2830	
Well 13	8/16/2025	10:12	20.36	2825	
Well 13	8/16/2025	10:13	20.34	2826	
Well 13	8/16/2025	10:14	20.34	2821	
Well 13	8/16/2025	10:15	20.31	2825	
Well 13	8/16/2025	10:16	20.32	2827	
Well 13	8/16/2025	10:17	20.33	2824	
Well 13	8/16/2025	10:18	20.33	2821	
Well 13	8/16/2025	10:19	20.36	2824	
Well 13	8/16/2025	10:20	20.29	2818	
Well 13	8/16/2025	10:22	20.36	2817	
Well 13	8/16/2025	10:23	20.38	2818	
Well 13	8/16/2025	10:25	20.33	2820	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/16/2025	10:26	20.36	2822	
Well 13	8/16/2025	10:27	20.29	2821	
Well 13	8/16/2025	10:28	20.35	2817	
Well 13	8/16/2025	10:29	20.30	2814	
Well 13	8/16/2025	10:30	20.34	2817	
Well 13	8/16/2025	10:33	20.36	2818	
Well 13	8/16/2025	10:36	20.35	2817	
Well 13	8/16/2025	10:40	20.34	2815	
Well 13	8/16/2025	10:46	20.30	2810	
Well 13	8/16/2025	10:51	20.34	2815	
Well 13	8/16/2025	10:56	20.34	2816	
Well 13	8/16/2025	11:01	20.35	2811	
Well 13	8/16/2025	11:10	20.34	2813	
Well 13	8/16/2025	11:21	20.32	2817	
Well 13	8/16/2025	11:30	20.34	2815	
Well 13	8/16/2025	11:41	20.29	2817	
Well 13	8/16/2025	11:51	20.35	2816	
Well 13	8/16/2025	12:00	20.32	2820	
Well 13	8/16/2025	12:16	20.37	2820	
Well 13	8/16/2025	12:30	20.38	2818	
Well 13	8/16/2025	12:45	20.34	2818	
Well 13	8/16/2025	13:00	20.33	288	
Well 13	8/16/2025	13:15	20.33	2813	
Well 13	8/16/2025	13:30	20.29	2810	
Well 13	8/16/2025	13:45	20.30	2810	
Well 13	8/16/2025	14:00	20.29	2813	
Well 13	8/16/2025	14:15	20.38	2807	
Well 13	8/16/2025	14:30	20.33	2811	
Well 13	8/16/2025	14:45	20.30	2805	
Well 13	8/16/2025	15:00	20.25	2811	
Well 13	8/16/2025	15:15	20.29	2802	
Well 13	8/16/2025	15:30	20.23	2806	
Well 13	8/16/2025	15:45	20.33	2801	
Well 13	8/16/2025	16:00	20.35	2807	
Well 13	8/16/2025	16:15	20.38	2803	
Well 13	8/16/2025	16:30	20.34	2809	
Well 13	8/16/2025	16:45	20.38	2805	
Well 13	8/16/2025	17:00	20.32	2799	
Well 13	8/16/2025	18:00	20.30	2808	
Well 13	8/16/2025	19:00	20.35	2799	
Well 13	8/16/2025	20:00	20.40	2793	
Well 13	8/16/2025	21:00	20.34	2802	
Well 13	8/16/2025	22:08	20.41	2799	
Well 13	8/16/2025	23:00	20.40	2799	
Well 13	8/17/2025	0:02	20.40	2793	
Well 13	8/17/2025	1:00	20.37	2790	
Well 13	8/17/2025	2:00	20.47	2794	
Well 13	8/17/2025	3:00	20.42	2796	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/17/2025	4:00	20.41	2792	
Well 13	8/17/2025	5:00	20.46	2790	
Well 13	8/17/2025	6:00	20.79	2802	
Well 13	8/17/2025	7:00	20.39	2799	
Well 13	8/17/2025	8:00	20.45	2802	
Well 13	8/17/2025	9:00	20.37	2792	
Well 13	8/17/2025	10:01	20.28	2791	
Well 13	8/17/2025	11:01	20.29	2782	
Well 13	8/17/2025	12:01	20.24	2782	
Well 13	8/17/2025	13:00	20.34	2787	
Well 13	8/17/2025	14:00	20.27	2790	
Well 13	8/17/2025	15:00	20.28	2781	
Well 13	8/17/2025	16:20	20.29	2780	
Well 13	8/17/2025	17:00	20.26	2780	
Well 13	8/17/2025	18:00	20.34	2776	
Well 13	8/17/2025	19:00	20.30	2783	
Well 13	8/17/2025	20:00	20.40	2796	
Well 13	8/17/2025	20:59	20.35	2797	
Well 13	8/17/2025	22:10	20.38	2791	
Well 13	8/17/2025	23:02	20.50	2800	
Well 13	8/18/2025	0:00	20.39	2803	
Well 13	8/18/2025	0:59	20.36	2800	
Well 13	8/18/2025	1:59	20.46	2802	
Well 13	8/18/2025	3:00	20.42	2804	
Well 13	8/18/2025	4:01	20.52	2809	
Well 13	8/18/2025	4:59	20.50	2810	
Well 13	8/18/2025	5:59	20.49	2806	
Well 13	8/18/2025	7:01	20.50	2807	
Well 13	8/18/2025	8:00	20.48	2803	
Well 13	8/18/2025	9:00	20.43	2800	
Well 13	8/18/2025	10:00	20.40	2796	
Well 13	8/18/2025	11:00	20.35	2784	
Well 13	8/18/2025	12:00	20.33	2294	
Well 13	8/18/2025	13:00	20.26	2794	
Well 13	8/18/2025	14:00	20.33	2795	
Well 13	8/18/2025	15:00	20.27	2793	
Well 13	8/18/2025	16:01	20.30	2794	
Well 13	8/18/2025	17:00	20.31	2798	
Well 13	8/18/2025	18:00	20.34	2795	
Well 13	8/18/2025	19:00	20.35	2796	
Well 13	8/18/2025	20:00	20.45	2794	
Well 13	8/18/2025	21:00	20.33	2796	
Well 13	8/18/2025	22:00	20.40	2795	
Well 13	8/18/2025	23:00	20.45	2798	
Well 13	8/19/2025	0:00	20.37	2798	
Well 13	8/19/2025	1:00	20.40	2800	
Well 13	8/19/2025	2:00	20.45	2797	
Well 13	8/19/2025	3:00	20.45	2798	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/19/2025	4:04	20.50	2794	
Well 13	8/19/2025	5:00	20.55	2794	
Well 13	8/19/2025	6:00	20.55	2787	
Well 13	8/19/2025	7:00	20.35	2800	
Well 13	8/19/2025	8:00	20.45	2796	
Well 13	8/19/2025	8:43	20.46	2793	
Well 13	8/19/2025	10:00	20.45	2759	
Well 13	8/19/2025	11:00	20.35	2796	
Well 13	8/19/2025	12:00	20.31	2794	
Well 13	8/19/2025	13:05	20.30	2798	
Well 13	8/19/2025	14:00	20.23	2793	
Well 13	8/19/2025	15:00	20.24	2792	
Well 13	8/19/2025	16:00	20.25	2783	
Well 13	8/19/2025	17:00	20.30	2791	
Well 13	8/19/2025	18:01	20.33	2798	
Well 13	8/19/2025	19:00	20.35	2798	
Well 13	8/19/2025	20:00	20.45	2797	
Well 13	8/19/2025	21:00	20.40	2797	
Well 13	8/19/2025	22:00	20.45	2800	
Well 13	8/19/2025	23:00	20.40	2799	
Well 13	8/20/2025	0:00	20.43	2805	
Well 13	8/20/2025	1:01	20.45	2805	
Well 13	8/20/2025	2:00	20.40	2813	
Well 13	8/20/2025	3:00	20.38	2814	
Well 13	8/20/2025	4:00	20.45	2813	
Well 13	8/20/2025	5:00	20.45	2815	
Well 13	8/20/2025	6:00	20.50	2816	
Well 13	8/20/2025	6:58	20.52	2817	
Well 13	8/20/2025	7:59	20.56	2815	
Well 13	8/20/2025	8:58	20.51	2810	
Well 13	8/20/2025	10:00	20.51	2801	
Well 13	8/20/2025	11:01	20.48	2794	
Well 13	8/20/2025	12:00	20.32	2809	
Well 13	8/20/2025	13:01	20.34	2800	
Well 13	8/20/2025	14:01	20.35	2808	
Well 13	8/20/2025	15:00	20.31	2802	
Well 13	8/20/2025	16:00	20.26	2801	
Well 13	8/20/2025	17:00	20.32	2794	
Well 13	8/20/2025	18:05	20.32	2793	
Well 13	8/20/2025	19:00	20.29	2797	
Well 13	8/20/2025	20:00	20.42	2795	
Well 13	8/20/2025	21:00	20.44	2798	
Well 13	8/20/2025	22:00	20.45	2801	
Well 13	8/20/2025	23:00	20.43	2807	
Well 13	8/21/2025	0:00	20.43	2807	
Well 13	8/21/2025	1:00	20.49	2809	
Well 13	8/21/2025	2:00	20.45	2805	
Well 13	8/21/2025	3:00	20.45	2807	

Kalaeloa Aquifer Testing Field Data - Well 13 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 13	8/21/2025	4:00	20.43	2813	
Well 13	8/21/2025	5:01	20.42	2810	
Well 13	8/21/2025	6:00	20.45	2821	
Well 13	8/21/2025	7:01	20.55	2813	
Well 13	8/21/2025	7:59	20.56	2814	
Well 13	8/21/2025	8:08	20.57	2806	
Well 13	8/21/2025	8:55	20.56	n/a	
Well 13	8/21/2025	9:01	20.52	2797	
Well 13	8/21/2025	10:01	20.59	2803	
Well 13	8/21/2025	10:04	20.53	2798	
Well 13	8/21/2025	10:10	n/a	0	Well 13 120-hr Test - Pump Off
Well 13	8/21/2025	10:10	14.37	0	
Well 13	8/21/2025	10:11	17.15	0	
Well 13	8/21/2025	10:11	14.11	0	
Well 13	8/21/2025	10:12	15.89	0	
Well 13	8/21/2025	10:12	15.12	0	
Well 13	8/21/2025	10:13	15.49	0	
Well 13	8/21/2025	10:13	17.71	0	
Well 13	8/21/2025	10:14	16.34	0	
Well 13	8/21/2025	10:14	16.45	0	
Well 13	8/21/2025	10:17	16.61	0	
Well 13	8/21/2025	10:17	16.73	0	
Well 13	8/21/2025	10:18	16.70	0	
Well 13	8/21/2025	10:19	16.66	0	
Well 13	8/21/2025	10:20	16.67	0	
Well 13	8/21/2025	10:21	16.70	0	
Well 13	8/21/2025	10:22	16.68	0	
Well 13	8/21/2025	10:23	16.64	0	
Well 13	8/21/2025	10:24	16.62	0	
Well 13	8/21/2025	10:25	16.60	0	
Well 13	8/21/2025	10:26	16.59	0	
Well 13	8/21/2025	10:27	16.61	0	
Well 13	8/21/2025	10:28	16.59	0	
Well 13	8/21/2025	10:29	16.58	0	
Well 13	8/21/2025	10:30	16.59	0	
Well 13	8/21/2025	10:35	16.57	0	
Well 13	8/21/2025	10:40	16.56	0	
Well 13	8/21/2025	10:45	16.53	0	
Well 13	8/21/2025	10:50	16.53	0	
Well 13	8/21/2025	10:55	16.54	0	
Well 13	8/21/2025	11:00	16.52	0	
Well 13	8/21/2025	11:05	16.50	0	
Well 13	8/21/2025	11:10	16.49	0	
Well 13	8/21/2025	11:37	16.46	0	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	2/20/2025	11:46	13.60	0	
Well 14	2/20/2025	11:50	13.65	0	
Well 14	2/20/2025	11:53	13.70	0	
Well 14	4/25/2025	23:39	13.08	0	
Well 14	4/26/2025	13:59	12.84	0	
Well 14	5/2/2025	12:54	13.32	0	
Well 14	5/12/2025	11:46	13.26	0	
Well 14	5/15/2025	10:33	13.38	0	
Well 14	5/22/2025	8:01	13.24	0	
Well 14	5/22/2025	8:02	13.24	0	
Well 14	5/22/2025	11:35	12.95	0	
Well 14	5/30/2025	11:39	13.35	0	
Well 14	6/6/2025	9:50	13.26	0	
Well 14	6/6/2025	10:13	13.26	0	
Well 14	6/18/2025	9:53	13.07	0	
Well 14	6/18/2025	10:08	13.05	0	
Well 14	6/23/2025	11:20	13.19	0	
Well 14	6/27/2025	14:57	13.03	0	
Well 14	6/27/2025	15:17	12.96	0	
Well 14	6/30/2025	13:39	13.14	0	
Well 14	7/3/2025	7:39	13.22	0	
Well 14	7/3/2025	7:40	13.22	0	
Well 14	7/3/2025	7:41	13.22	0	
Well 14	7/3/2025	8:08	13.19	0	
Well 14	7/3/2025	8:22	13.18	0	
Well 14	7/3/2025	11:40	12.84	0	
Well 14	7/3/2025	11:41	12.85	0	
Well 14	7/3/2025	11:41	12.84	0	
Well 14	7/7/2025	8:38	13.43	0	Well 15 Step Test - Step 1 (WLs monitored in Well 14)
Well 14	7/7/2025	8:39	13.43	0	
Well 14	7/7/2025	8:42	13.51	0	
Well 14	7/7/2025	8:46	13.52	0	
Well 14	7/7/2025	8:49	13.59	0	
Well 14	7/7/2025	8:52	13.60	0	
Well 14	7/7/2025	8:53	13.61	0	
Well 14	7/7/2025	8:56	13.59	0	
Well 14	7/7/2025	8:59	13.40	0	
Well 14	7/7/2025	9:00	13.40	0	
Well 14	7/7/2025	9:03	13.39	0	
Well 14	7/7/2025	9:08	13.39	0	
Well 14	7/7/2025	9:15	13.38	0	
Well 14	7/7/2025	9:24	13.39	0	
Well 14	7/7/2025	9:41	13.36	0	
Well 14	7/7/2025	10:00	13.33	0	
Well 14	7/7/2025	10:01	13.33	0	Well 15 Step Test - Step 2 (WLs monitored in Well 14)
Well 14	7/7/2025	10:06	13.32	0	
Well 14	7/7/2025	10:09	13.31	0	
Well 14	7/7/2025	10:11	13.31	0	
Well 14	7/7/2025	10:15	13.31	0	
Well 14	7/7/2025	10:27	13.27	0	
Well 14	7/7/2025	10:43	13.22	0	
Well 14	7/7/2025	10:57	13.23	0	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	7/7/2025	11:56	13.04	0	Well 15 Step Test - Step 3 (WLs monitored in Well 14)
Well 14	7/7/2025	12:03	13.02	0	
Well 14	7/7/2025	12:11	12.99	0	
Well 14	7/7/2025	12:27	12.27	0	Well 15 Step Test - Step 4 (WLs monitored in Well 14)
Well 14	7/7/2025	12:30	12.98	0	
Well 14	7/7/2025	12:33	12.98	0	
Well 14	7/7/2025	12:36	12.98	0	
Well 14	7/7/2025	12:40	12.97	0	
Well 14	7/7/2025	12:44	12.97	0	
Well 14	7/7/2025	12:48	12.94	0	
Well 14	7/7/2025	12:53	12.94	0	
Well 14	7/7/2025	13:01	12.92	0	
Well 14	7/9/2025	8:45	13.42	0	
Well 14	7/9/2025	8:46	13.43	0	
Well 14	7/9/2025	8:47	13.43	0	
Well 14	7/9/2025	11:01	13.34	0	Well 15 Cycle Test - Cycle 1 On (WLs monitored in Well 14)
Well 14	7/9/2025	11:02	13.34	0	
Well 14	7/9/2025	11:03	13.34	0	
Well 14	7/9/2025	11:54	13.22	0	
Well 14	7/9/2025	11:55	13.22	0	
Well 14	7/9/2025	11:56	13.21	0	
Well 14	7/9/2025	13:53	12.87	0	
Well 14	7/9/2025	13:54	12.85	0	
Well 14	7/9/2025	13:55	12.86	0	
Well 14	7/9/2025	15:01	12.69	0	
Well 14	7/9/2025	15:02	12.69	0	
Well 14	7/9/2025	15:03	12.69	0	
Well 14	7/9/2025	16:41	12.49	0	Well 15 Cycle Test - Cycle 1 Off (WLs monitored in Well 14)
Well 14	7/9/2025	19:00	12.53	0	
Well 14	7/9/2025	19:35	12.57	0	Well 15 Cycle Test - Cycle 2 On (WLs monitored in Well 14)
Well 14	7/9/2025	20:05	12.66	0	
Well 14	7/9/2025	21:55	12.92	0	
Well 14	7/9/2025	23:36	13.05	0	
Well 14	7/10/2025	1:30	12.89	0	
Well 14	7/10/2025	3:45	12.96	0	
Well 14	7/10/2025	5:50	13.01	0	
Well 14	7/10/2025	7:16	13.36	0	Well 15 Cycle Test - Cycle 2 Off (WLs monitored in Well 14)
Well 14	7/10/2025	8:19	13.34	0	
Well 14	7/10/2025	8:31	13.37	0	
Well 14	7/10/2025	9:16	13.43	0	
Well 14	7/10/2025	9:42	13.45	0	
Well 14	7/10/2025	10:19	13.46	0	
Well 14	7/10/2025	10:49	13.47	0	
Well 14	7/10/2025	11:24	13.38	0	Well 15 Cycle Test - Cycle 3 On (WLs monitored in Well 14)
Well 14	7/10/2025	11:59	13.30	0	
Well 14	7/10/2025	12:39	13.17	0	
Well 14	7/10/2025	13:16	13.16	0	
Well 14	7/10/2025	13:41	13.13	0	
Well 14	7/10/2025	14:09	13.01	0	
Well 14	7/10/2025	14:32	12.91	0	
Well 14	7/10/2025	14:53	12.87	0	
Well 14	7/10/2025	15:38	12.79	0	Well 15 Cycle Test - Cycle 3 Off (WLs monitored in Well 14)

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	7/12/2025	8:43	13.26	0	
Well 14	7/12/2025	8:44	13.26	0	
Well 14	7/12/2025	8:45	13.26	0	
Well 14	7/12/2025	10:24	14.39	0	Well 15 120-hr Test - Pump On (WLs monitored in Well 14)
Well 14	7/12/2025	11:28	13.30	0	
Well 14	7/12/2025	12:00	13.59	0	
Well 14	7/12/2025	12:57	13.90	0	
Well 14	7/12/2025	13:59	13.45	0	
Well 14	7/12/2025	15:05	13.08	0	
Well 14	7/12/2025	15:56	13.50	0	
Well 14	7/12/2025	18:03	13.10	0	
Well 14	7/12/2025	19:01	12.75	0	
Well 14	7/12/2025	19:56	12.75	0	
Well 14	7/12/2025	22:55	12.85	0	
Well 14	7/13/2025	0:07	13.05	0	
Well 14	7/13/2025	3:18	13.19	0	
Well 14	7/13/2025	4:28	13.03	0	
Well 14	7/13/2025	7:11	13.15	0	
Well 14	7/13/2025	9:06	13.55	0	
Well 14	7/13/2025	9:56	13.65	0	
Well 14	7/13/2025	10:57	13.50	0	
Well 14	7/13/2025	11:57	13.56	0	
Well 14	7/13/2025	12:57	13.20	0	
Well 14	7/13/2025	14:02	13.32	0	
Well 14	7/13/2025	15:00	13.30	0	
Well 14	7/13/2025	15:55	13.00	0	
Well 14	7/13/2025	16:54	13.00	0	
Well 14	7/13/2025	18:00	12.77	0	
Well 14	7/13/2025	18:56	13.13	0	
Well 14	7/13/2025	20:01	12.68	0	
Well 14	7/13/2025	22:00	12.69	0	
Well 14	7/14/2025	0:04	13.00	0	
Well 14	7/14/2025	2:05	13.25	0	
Well 14	7/14/2025	4:05	13.18	0	
Well 14	7/14/2025	6:04	13.18	0	
Well 14	7/14/2025	8:04	13.05	0	
Well 14	7/14/2025	10:11	13.16	0	
Well 14	7/14/2025	11:11	13.42	0	
Well 14	7/14/2025	12:09	13.37	0	
Well 14	7/14/2025	13:03	13.56	0	
Well 14	7/14/2025	14:00	13.55	0	
Well 14	7/14/2025	14:58	13.36	0	
Well 14	7/14/2025	15:58	13.85	0	
Well 14	7/14/2025	17:01	13.00	0	
Well 14	7/14/2025	17:59	13.20	0	
Well 14	7/14/2025	19:00	12.73	0	
Well 14	7/14/2025	19:57	12.80	0	
Well 14	7/14/2025	22:10	12.66	0	
Well 14	7/15/2025	0:12	12.98	0	
Well 14	7/15/2025	2:22	13.24	0	
Well 14	7/15/2025	4:11	13.28	0	
Well 14	7/15/2025	6:10	13.10	0	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	7/15/2025	8:08	12.99	0	
Well 14	7/15/2025	9:01	12.99	0	
Well 14	7/15/2025	10:01	13.14	0	
Well 14	7/15/2025	11:00	13.13	0	
Well 14	7/15/2025	12:00	13.00	0	
Well 14	7/15/2025	12:58	13.15	0	
Well 14	7/15/2025	13:58	13.20	0	
Well 14	7/15/2025	14:56	13.20	0	
Well 14	7/15/2025	16:04	13.15	0	
Well 14	7/15/2025	16:59	13.05	0	
Well 14	7/15/2025	17:57	13.15	0	
Well 14	7/15/2025	19:00	12.80	0	
Well 14	7/15/2025	20:00	12.63	0	
Well 14	7/15/2025	22:09	12.68	0	
Well 14	7/16/2025	0:09	12.92	0	
Well 14	7/16/2025	2:14	13.17	0	
Well 14	7/16/2025	4:42	13.20	0	
Well 14	7/16/2025	6:14	12.98	0	
Well 14	7/16/2025	8:13	12.94	0	
Well 14	7/16/2025	8:58	13.00	0	
Well 14	7/16/2025	10:00	13.05	0	
Well 14	7/16/2025	11:03	13.05	0	
Well 14	7/16/2025	11:59	13.00	0	
Well 14	7/16/2025	13:02	13.09	0	
Well 14	7/16/2025	13:58	13.10	0	
Well 14	7/16/2025	15:02	13.15	0	
Well 14	7/16/2025	16:00	13.10	0	
Well 14	7/16/2025	17:00	13.07	0	
Well 14	7/16/2025	18:00	12.95	0	
Well 14	7/16/2025	18:58	15.10	0	
Well 14	7/16/2025	20:00	12.73	0	
Well 14	7/16/2025	21:54	12.70	0	
Well 14	7/17/2025	0:06	12.89	0	
Well 14	7/17/2025	1:53	13.24	0	
Well 14	7/17/2025	4:08	13.26	0	
Well 14	7/17/2025	5:55	13.19	0	
Well 14	7/17/2025	7:54	13.00	0	
Well 14	7/17/2025	8:52	12.86	0	
Well 14	7/17/2025	9:43	12.80	0	
Well 14	7/17/2025	10:57	12.74	0	Well 15 120-hr Test - Pump Off (WLs monitored in Well 14)
Well 14	7/28/2025	8:36	11.78	0	
Well 14	7/28/2025	8:37	11.78	0	
Well 14	7/28/2025	8:38	11.79	0	
Well 14	7/28/2025	8:50	11.79	0	
Well 14	7/28/2025	8:52	11.79	0	
Well 14	7/28/2025	9:01	11.80	0	
Well 14	7/28/2025	9:17	11.80	0	
Well 14	7/28/2025	9:31	11.81	0	
Well 14	7/28/2025	9:32	12.72	0	
Well 14	7/28/2025	9:32	12.54	1826	Well 14 Step Test - Step 1
Well 14	7/28/2025	9:32	12.45	1580	
Well 14	7/28/2025	9:33	12.22	1499	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	7/28/2025	9:33	12.33	1497	
Well 14	7/28/2025	9:33	12.25	1408	
Well 14	7/28/2025	9:33	12.31	1366	
Well 14	7/28/2025	9:34	12.37	1408	
Well 14	7/28/2025	9:34	12.37	1415	
Well 14	7/28/2025	9:34	12.31	1418	
Well 14	7/28/2025	9:34	12.32	1340	
Well 14	7/28/2025	9:35	12.17	1178	
Well 14	7/28/2025	9:35	12.21	1147	
Well 14	7/28/2025	9:35	12.17	1141	
Well 14	7/28/2025	9:35	12.14	1094	
Well 14	7/28/2025	9:36	12.17	1081	
Well 14	7/28/2025	9:36	12.17	1074	
Well 14	7/28/2025	9:36	12.16	1073	
Well 14	7/28/2025	9:37	12.15	1061	
Well 14	7/28/2025	9:37	12.14	1042	
Well 14	7/28/2025	9:37	12.15	1033	
Well 14	7/28/2025	9:37	12.15	1020	
Well 14	7/28/2025	9:38	12.14	1005	
Well 14	7/28/2025	9:39	12.14	1015	
Well 14	7/28/2025	9:40	12.15	1014	
Well 14	7/28/2025	9:41	12.15	1011	
Well 14	7/28/2025	9:42	12.16	1014	
Well 14	7/28/2025	9:43	12.16	1014	
Well 14	7/28/2025	9:44	12.15	1014	
Well 14	7/28/2025	9:45	12.15	1014	
Well 14	7/28/2025	9:47	12.16	1010	
Well 14	7/28/2025	9:49	12.16	1012	
Well 14	7/28/2025	9:51	12.17	1008	
Well 14	7/28/2025	9:53	12.16	1005	
Well 14	7/28/2025	9:55	12.16	1012	
Well 14	7/28/2025	10:00	12.17	n/a	
Well 14	7/28/2025	10:05	12.18	n/a	
Well 14	7/28/2025	10:10	12.19	997	
Well 14	7/28/2025	10:20	12.19	989	
Well 14	7/28/2025	10:30	12.22	987	
Well 14	7/28/2025	10:40	12.25	980	
Well 14	7/28/2025	10:50	12.26	980	
Well 14	7/28/2025	10:59	12.28	981	
Well 14	7/28/2025	11:00	12.52	n/a	Well 14 Step Test - Step 2
Well 14	7/28/2025	11:00	12.66	15.18	
Well 14	7/28/2025	11:01	12.59	1593	
Well 14	7/28/2025	11:02	12.65	1690	
Well 14	7/28/2025	11:03	12.70	1714	
Well 14	7/28/2025	11:03	12.66	1705	
Well 14	7/28/2025	11:04	12.64	1710	
Well 14	7/28/2025	11:04	12.65	1699	
Well 14	7/28/2025	11:04	12.68	1706	
Well 14	7/28/2025	11:05	12.66	1693	
Well 14	7/28/2025	11:05	12.66	1700	
Well 14	7/28/2025	11:06	12.68	1706	
Well 14	7/28/2025	11:07	12.66	1690	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	7/28/2025	11:07	12.67	1694	
Well 14	7/28/2025	11:08	12.67	1699	
Well 14	7/28/2025	11:09	12.68	1705	
Well 14	7/28/2025	11:11	12.67	1702	
Well 14	7/28/2025	11:13	12.67	1689	
Well 14	7/28/2025	11:14	12.70	1690	
Well 14	7/28/2025	11:15	12.68	1695	
Well 14	7/28/2025	11:16	12.69	1706	
Well 14	7/28/2025	11:17	12.69	1710	
Well 14	7/28/2025	11:18	12.69	1692	
Well 14	7/28/2025	11:19	12.69	1705	
Well 14	7/28/2025	11:20	12.69	1701	
Well 14	7/28/2025	11:21	12.70	1704	
Well 14	7/28/2025	11:23	12.70	1701	
Well 14	7/28/2025	11:25	12.70	1690	
Well 14	7/28/2025	11:27	12.71	1690	
Well 14	7/28/2025	11:29	12.71	1698	
Well 14	7/28/2025	11:31	12.70	1707	
Well 14	7/28/2025	11:33	12.71	1706	
Well 14	7/28/2025	11:35	12.71	1699	
Well 14	7/28/2025	11:40	12.74	1688	
Well 14	7/28/2025	11:50	12.75	1689	
Well 14	7/28/2025	11:56	12.75	1686	
Well 14	7/28/2025	12:01	12.77	1690	
Well 14	7/28/2025	12:07	12.80	1676	
Well 14	7/28/2025	12:10	12.79	1686	
Well 14	7/28/2025	12:15	12.79	1698	
Well 14	7/28/2025	12:20	12.80	1680	
Well 14	7/28/2025	12:25	12.81	1685	
Well 14	7/28/2025	12:30	12.80	1676	
Well 14	7/28/2025	12:35	12.81	1687	
Well 14	7/28/2025	12:37	12.83	1687	
Well 14	7/28/2025	12:40	12.81	1677	
Well 14	7/28/2025	12:44	12.84	1677	
Well 14	7/28/2025	12:45	12.89	2070	Well 14 Step Test - Step 3
Well 14	7/28/2025	12:45	12.98	2070	
Well 14	7/28/2025	12:45	13.05	2070	
Well 14	7/28/2025	12:45	13.09	2104	
Well 14	7/28/2025	12:46	13.11	2122	
Well 14	7/28/2025	12:46	13.13	2158	
Well 14	7/28/2025	12:47	13.13	2190	Adjust pump rate
Well 14	7/28/2025	12:47	13.17	2211	
Well 14	7/28/2025	12:48	13.16	2231	
Well 14	7/28/2025	12:48	13.16	2246	
Well 14	7/28/2025	12:48	13.24	2328	
Well 14	7/28/2025	12:49	13.25	2324	
Well 14	7/28/2025	12:49	13.25	2339	
Well 14	7/28/2025	12:49	13.24	2339	
Well 14	7/28/2025	12:50	13.18	2317	Adjust pump rate
Well 14	7/28/2025	12:50	13.18	2236	
Well 14	7/28/2025	12:50	13.19	2241	
Well 14	7/28/2025	12:51	13.17	2246	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	7/28/2025	12:51	13.20	2249	
Well 14	7/28/2025	12:52	13.20	2255	
Well 14	7/28/2025	12:52	13.17	2255	
Well 14	7/28/2025	12:53	13.18	2260	
Well 14	7/28/2025	12:54	13.20	2254	
Well 14	7/28/2025	12:55	13.20	2249	
Well 14	7/28/2025	12:56	13.19	2255	
Well 14	7/28/2025	12:57	13.19	2241	
Well 14	7/28/2025	12:58	13.19	2237	
Well 14	7/28/2025	12:59	13.17	2233	
Well 14	7/28/2025	13:00	13.18	2237	
Well 14	7/28/2025	13:02	13.20	2236	
Well 14	7/28/2025	13:03	13.19	2242	
Well 14	7/28/2025	13:05	13.18	2252	
Well 14	7/28/2025	13:07	13.19	2229	
Well 14	7/28/2025	13:10	13.17	2217	
Well 14	7/28/2025	13:11	13.19	2220	
Well 14	7/28/2025	13:13	13.19	2230	
Well 14	7/28/2025	13:17	13.17	2214	
Well 14	7/28/2025	13:19	13.18	2212	
Well 14	7/28/2025	13:21	13.18	2224	
Well 14	7/28/2025	13:23	13.21	2225	
Well 14	7/28/2025	13:25	13.20	2226	
Well 14	7/28/2025	13:27	13.19	2214	
Well 14	7/28/2025	13:29	13.19	2220	
Well 14	7/28/2025	13:31	13.17	2218	
Well 14	7/28/2025	13:33	13.18	2220	
Well 14	7/28/2025	13:35	13.17	2226	
Well 14	7/28/2025	13:37	13.18	2225	
Well 14	7/28/2025	13:40	13.19	2204	
Well 14	7/28/2025	13:45	13.17	2222	
Well 14	7/28/2025	13:51	13.19	2213	
Well 14	7/28/2025	13:55	13.17	2208	
Well 14	7/28/2025	14:00	13.17	2220	
Well 14	7/28/2025	14:05	13.17	2205	
Well 14	7/28/2025	14:10	13.18	2206	
Well 14	7/28/2025	14:15	13.17	2212	
Well 14	7/28/2025	14:15	13.12	n/a	Well 14 Step Test - Step 4
Well 14	7/28/2025	14:15	13.21	n/a	
Well 14	7/28/2025	14:15	13.21	n/a	
Well 14	7/28/2025	14:16	13.22	2298	
Well 14	7/28/2025	14:17	13.24	2980	Adjust pump rate
Well 14	7/28/2025	14:18	13.69	2912	
Well 14	7/28/2025	14:18	13.75	2950	
Well 14	7/28/2025	14:19	13.79	3011	
Well 14	7/28/2025	14:20	13.79	- Rate:	
Well 14	7/28/2025	14:20	13.78	3015	
Well 14	7/28/2025	14:21	13.78	3012	
Well 14	7/28/2025	14:21	13.78	3019	
Well 14	7/28/2025	14:21	13.79	3020	
Well 14	7/28/2025	14:22	13.80	3010	
Well 14	7/28/2025	14:22	13.79	3015	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	7/28/2025	14:22	13.80	3009	
Well 14	7/28/2025	14:23	13.78	3012	
Well 14	7/28/2025	14:23	13.79	3016	
Well 14	7/28/2025	14:24	13.78	3006	
Well 14	7/28/2025	14:24	13.79	3002	
Well 14	7/28/2025	14:24	13.79	3026	
Well 14	7/28/2025	14:25	13.79	3027	
Well 14	7/28/2025	14:26	13.80	3015	
Well 14	7/28/2025	14:27	13.80	3014	
Well 14	7/28/2025	14:28	13.79	3011	
Well 14	7/28/2025	14:29	13.80	3013	
Well 14	7/28/2025	14:30	13.78	3002	
Well 14	7/28/2025	14:31	13.78	3017	
Well 14	7/28/2025	14:32	13.78	3018	
Well 14	7/28/2025	14:33	13.80	3004	
Well 14	7/28/2025	14:34	13.77	3001	
Well 14	7/28/2025	14:35	13.78	3011	
Well 14	7/28/2025	14:37	13.78	3013	
Well 14	7/28/2025	14:39	13.79	3011	
Well 14	7/28/2025	14:41	13.78	3019	
Well 14	7/28/2025	14:43	13.79	3024	
Well 14	7/28/2025	14:45	13.78	3020	
Well 14	7/28/2025	14:47	13.79	2009	
Well 14	7/28/2025	14:49	13.79	3014	
Well 14	7/28/2025	14:51	13.78	3024	
Well 14	7/28/2025	14:53	13.79	3019	
Well 14	7/28/2025	14:55	13.76	3024	
Well 14	7/28/2025	15:00	13.78	3008	
Well 14	7/28/2025	15:05	13.77	3025	
Well 14	7/28/2025	15:10	13.75	3015	
Well 14	7/28/2025	15:15	13.76	3011	
Well 14	7/28/2025	15:20	13.74	3021	
Well 14	7/28/2025	15:25	13.73	3008	
Well 14	7/28/2025	15:30	13.74	3011	
Well 14	7/28/2025	15:35	13.72	3013	
Well 14	7/28/2025	15:41	13.71	3021	
Well 14	7/28/2025	15:45	13.71	3009	
Well 14	7/28/2025	15:45	12.19	0	Well 14 - Step Test Pump Shut Off
Well 14	7/28/2025	15:46	12.14	0	
Well 14	7/28/2025	15:46	12.16	0	
Well 14	7/28/2025	15:46	12.15	0	
Well 14	7/28/2025	15:46	12.14	0	
Well 14	7/28/2025	15:47	12.15	0	
Well 14	7/28/2025	15:47	12.14	0	
Well 14	7/28/2025	15:47	12.13	0	
Well 14	7/28/2025	15:47	12.11	0	
Well 14	7/28/2025	15:47	12.14	0	
Well 14	7/28/2025	15:47	12.14	0	
Well 14	7/28/2025	15:48	12.13	0	
Well 14	7/28/2025	15:48	12.13	0	
Well 14	7/28/2025	15:48	12.12	0	
Well 14	7/28/2025	15:49	12.13	0	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	7/28/2025	15:49	12.12	0	
Well 14	7/28/2025	15:50	12.12	0	
Well 14	7/28/2025	15:51	12.11	0	
Well 14	7/28/2025	15:52	12.11	0	
Well 14	7/28/2025	15:53	12.10	0	
Well 14	7/28/2025	15:54	12.10	0	
Well 14	7/28/2025	15:55	12.10	0	
Well 14	7/28/2025	15:56	12.10	0	
Well 14	7/28/2025	15:57	12.10	0	
Well 14	7/28/2025	15:58	12.10	0	
Well 14	7/28/2025	15:59	12.09	0	
Well 14	7/28/2025	16:00	12.09	0	
Well 14	7/28/2025	16:02	12.08	0	
Well 14	7/28/2025	16:04	12.07	0	
Well 14	7/28/2025	16:06	12.07	0	
Well 14	7/28/2025	16:08	12.06	0	
Well 14	7/28/2025	16:10	12.06	0	
Well 14	7/28/2025	16:12	12.06	0	
Well 14	7/28/2025	16:14	12.05	0	
Well 14	7/28/2025	16:16	12.05	0	
Well 14	7/28/2025	16:18	12.04	0	
Well 14	7/28/2025	16:20	12.04	0	
Well 14	7/28/2025	16:25	12.03	0	
Well 14	7/28/2025	16:30	12.01	0	
Well 14	7/28/2025	16:35	12.00	0	
Well 14	7/28/2025	16:40	11.99	0	
Well 14	7/28/2025	16:45	11.97	0	
Well 14	7/28/2025	16:55	11.96	0	
Well 14	7/28/2025	17:06	11.94	0	
Well 14	7/28/2025	17:18	11.92	0	
Well 14	7/30/2025	8:37	11.96	0	
Well 14	7/30/2025	8:48	11.96	0	
Well 14	7/30/2025	8:55	11.94	0	
Well 14	7/30/2025	8:59	11.95	0	
Well 14	7/30/2025	9:01	11.95	0	
Well 14	7/30/2025	9:03	11.93	0	
Well 14	7/30/2025	9:05	11.93	0	
Well 14	7/30/2025	9:07	11.92	0	
Well 14	7/30/2025	9:09	11.92	0	
Well 14	7/30/2025	9:11	11.93	0	
Well 14	7/30/2025	9:15	11.93	0	
Well 14	7/30/2025	9:17	11.93	0	
Well 14	7/30/2025	9:26	11.92	0	
Well 14	7/30/2025	9:32	11.93	0	
Well 14	7/30/2025	9:32	13.29	2702	Well 14 120-hr Test - Pump On
Well 14	7/30/2025	9:33	13.20	2502	
Well 14	7/30/2025	9:34	13.19	2510	
Well 14	7/30/2025	9:35	13.19	2481	
Well 14	7/30/2025	9:35	13.18	2471	
Well 14	7/30/2025	9:35	13.14	2504	
Well 14	7/30/2025	9:36	13.14	2471	
Well 14	7/30/2025	9:37	13.15	2506	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	7/30/2025	9:37	13.15	2504	
Well 14	7/30/2025	9:38	13.15	2512	
Well 14	7/30/2025	9:38	13.16	2515	
Well 14	7/30/2025	9:39	13.15	2505	
Well 14	7/30/2025	9:40	13.16	2523	
Well 14	7/30/2025	9:41	13.15	2521	
Well 14	7/30/2025	9:43	13.15	2544	
Well 14	7/30/2025	9:44	13.15	2524	
Well 14	7/30/2025	9:45	13.15	2530	
Well 14	7/30/2025	9:46	13.15	2531	
Well 14	7/30/2025	9:48	13.14	2521	
Well 14	7/30/2025	9:49	13.14	2534	
Well 14	7/30/2025	9:51	13.14	2523	
Well 14	7/30/2025	9:53	13.14	2500	
Well 14	7/30/2025	9:55	13.13	2497	
Well 14	7/30/2025	10:04	13.13	2508	
Well 14	7/30/2025	10:10	13.14	2511	
Well 14	7/30/2025	10:15	13.13	2512	
Well 14	7/30/2025	10:20	13.13	2508	
Well 14	7/30/2025	10:25	13.14	2499	
Well 14	7/30/2025	10:50	13.15	2502	
Well 14	7/30/2025	11:03	13.21	2495	
Well 14	7/30/2025	11:10	13.19	2503	
Well 14	7/30/2025	11:11	13.19	2516	
Well 14	7/30/2025	11:30	13.22	2511	
Well 14	7/30/2025	12:00	13.25	2496	
Well 14	7/30/2025	12:30	13.22	2495	
Well 14	7/30/2025	13:01	13.33	2503	
Well 14	7/30/2025	13:30	13.30	2498	
Well 14	7/30/2025	13:59	13.32	2483	
Well 14	7/30/2025	14:30	13.34	2489	
Well 14	7/30/2025	14:59	13.32	2482	
Well 14	7/30/2025	15:30	13.30	2490	
Well 14	7/30/2025	16:00	13.32	2482	
Well 14	7/30/2025	16:30	13.31	2490	
Well 14	7/30/2025	16:59	13.29	2486	
Well 14	7/30/2025	17:30	13.29	2503	
Well 14	7/30/2025	18:01	13.30	2493	
Well 14	7/30/2025	18:30	13.24	2496	
Well 14	7/30/2025	19:00	13.25	2503	
Well 14	7/30/2025	20:00	13.22	2499	
Well 14	7/30/2025	21:00	13.25	2487	
Well 14	7/30/2025	22:00	13.30	2487	
Well 14	7/30/2025	23:00	13.35	2466	
Well 14	7/31/2025	0:00	13.45	2454	
Well 14	7/31/2025	1:00	13.52	2440	
Well 14	7/31/2025	2:00	13.57	2432	
Well 14	7/31/2025	3:02	13.63	2422	
Well 14	7/31/2025	4:00	13.62	2429	
Well 14	7/31/2025	5:00	13.53	2419	
Well 14	7/31/2025	6:00	13.49	2419	
Well 14	7/31/2025	7:00	13.39	2412	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	7/31/2025	7:59	13.29	2415	
Well 14	7/31/2025	8:30	13.26	2463	
Well 14	7/31/2025	9:00	13.24	2441	
Well 14	7/31/2025	9:33	13.20	2464	
Well 14	7/31/2025	9:56	13.20	2445	
Well 14	7/31/2025	10:31	13.16	2443	
Well 14	7/31/2025	11:00	13.16	2434	
Well 14	7/31/2025	11:29	13.09	2407	
Well 14	7/31/2025	11:59	13.10	2420	
Well 14	7/31/2025	12:30	13.12	2430	
Well 14	7/31/2025	13:01	13.09	2390	
Well 14	7/31/2025	13:30	13.15	2414	
Well 14	7/31/2025	14:00	13.13	2389	
Well 14	7/31/2025	14:30	13.09	2426	
Well 14	7/31/2025	15:00	13.15	2428	
Well 14	7/31/2025	15:30	13.13	2431	
Well 14	7/31/2025	16:00	13.16	2403	
Well 14	7/31/2025	16:30	13.15	2395	
Well 14	7/31/2025	17:00	13.20	2420	
Well 14	7/31/2025	17:30	13.18	2426	
Well 14	7/31/2025	18:00	13.20	2431	
Well 14	7/31/2025	18:30	13.19	2435	
Well 14	7/31/2025	19:00	13.15	2440	
Well 14	7/31/2025	20:00	13.20	2446	
Well 14	7/31/2025	21:00	13.26	2445	
Well 14	7/31/2025	22:00	13.33	2458	
Well 14	7/31/2025	23:00	13.35	2457	
Well 14	8/1/2025	0:00	13.43	2460	
Well 14	8/1/2025	1:00	13.51	2464	
Well 14	8/1/2025	2:00	13.57	2456	
Well 14	8/1/2025	3:00	13.62	2459	
Well 14	8/1/2025	4:00	13.59	2465	
Well 14	8/1/2025	5:01	13.59	2458	
Well 14	8/1/2025	6:00	13.52	2456	
Well 14	8/1/2025	7:00	13.52	2459	
Well 14	8/1/2025	8:00	13.34	2459	
Well 14	8/1/2025	8:30	13.34	2459	
Well 14	8/1/2025	9:00	13.37	2466	
Well 14	8/1/2025	9:30	13.28	2483	
Well 14	8/1/2025	10:00	13.27	2459	
Well 14	8/1/2025	10:30	13.27	2457	
Well 14	8/1/2025	11:00	13.19	2455	
Well 14	8/1/2025	11:30	13.15	2461	
Well 14	8/1/2025	12:00	13.14	2458	
Well 14	8/1/2025	12:30	13.15	2458	
Well 14	8/1/2025	13:00	13.15	2459	
Well 14	8/1/2025	13:30	13.10	2464	
Well 14	8/1/2025	14:01	13.13	2449	
Well 14	8/1/2025	14:30	13.10	2446	
Well 14	8/1/2025	15:00	13.12	2434	
Well 14	8/1/2025	15:30	13.11	2442	
Well 14	8/1/2025	16:00	13.13	2429	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	8/1/2025	16:30	13.15	2430	
Well 14	8/1/2025	17:00	13.15	2438	
Well 14	8/1/2025	17:30	13.19	2430	
Well 14	8/1/2025	18:00	13.22	2447	
Well 14	8/1/2025	18:30	13.24	2452	
Well 14	8/1/2025	19:00	13.25	2457	
Well 14	8/1/2025	20:00	13.27	2458	
Well 14	8/1/2025	21:00	13.30	2457	
Well 14	8/1/2025	22:00	13.35	2466	
Well 14	8/1/2025	23:00	13.38	2466	
Well 14	8/2/2025	0:00	13.42	2478	
Well 14	8/2/2025	1:00	13.49	2482	
Well 14	8/2/2025	2:00	13.54	2478	
Well 14	8/2/2025	3:00	13.59	2477	
Well 14	8/2/2025	4:00	13.60	2480	
Well 14	8/2/2025	5:00	13.58	2478	
Well 14	8/2/2025	6:00	13.62	2484	
Well 14	8/2/2025	7:00	13.48	2472	
Well 14	8/2/2025	8:00	13.42	2468	
Well 14	8/2/2025	8:30	13.37	2462	
Well 14	8/2/2025	9:00	13.33	2461	
Well 14	8/2/2025	9:30	13.31	2461	
Well 14	8/2/2025	10:00	13.26	2457	
Well 14	8/2/2025	10:30	13.20	2461	
Well 14	8/2/2025	11:00	13.16	2461	
Well 14	8/2/2025	11:30	13.12	2457	
Well 14	8/2/2025	12:00	13.09	2454	
Well 14	8/2/2025	12:30	13.07	2457	
Well 14	8/2/2025	13:00	13.05	2455	
Well 14	8/2/2025	13:30	13.01	2456	
Well 14	8/2/2025	14:00	13.03	2457	
Well 14	8/2/2025	14:30	13.02	2452	
Well 14	8/2/2025	15:01	13.01	2444	
Well 14	8/2/2025	15:31	13.05	2442	
Well 14	8/2/2025	16:01	13.08	2441	
Well 14	8/2/2025	16:30	13.10	2440	
Well 14	8/2/2025	17:01	13.05	2446	
Well 14	8/2/2025	17:30	13.06	2452	
Well 14	8/2/2025	18:00	13.10	2447	
Well 14	8/2/2025	18:30	13.24	2456	
Well 14	8/2/2025	19:00	13.25	2455	
Well 14	8/2/2025	20:00	13.30	2463	
Well 14	8/2/2025	21:00	13.36	2462	
Well 14	8/2/2025	22:00	13.40	2477	
Well 14	8/2/2025	23:00	13.45	2486	
Well 14	8/3/2025	0:00	13.45	2472	
Well 14	8/3/2025	1:00	13.52	2480	
Well 14	8/3/2025	2:00	13.34	2479	
Well 14	8/3/2025	3:00	13.57	2479	
Well 14	8/3/2025	4:00	13.58	2488	
Well 14	8/3/2025	5:00	13.62	2488	
Well 14	8/3/2025	6:00	13.57	2477	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	8/3/2025	7:00	13.52	2472	
Well 14	8/3/2025	8:00	13.49	2468	
Well 14	8/3/2025	8:30	13.45	2463	
Well 14	8/3/2025	9:00	13.40	2458	
Well 14	8/3/2025	9:30	13.33	2460	
Well 14	8/3/2025	10:00	13.29	2462	
Well 14	8/3/2025	10:30	13.24	2461	
Well 14	8/3/2025	11:00	13.19	2470	
Well 14	8/3/2025	11:30	13.15	2468	
Well 14	8/3/2025	12:00	13.10	2467	
Well 14	8/3/2025	12:30	13.03	2461	
Well 14	8/3/2025	13:00	12.99	2467	
Well 14	8/3/2025	13:30	12.95	2468	
Well 14	8/3/2025	14:00	12.94	2460	
Well 14	8/3/2025	14:30	12.92	2457	
Well 14	8/3/2025	15:00	12.92	2454	
Well 14	8/3/2025	15:30	12.92	2461	
Well 14	8/3/2025	16:00	12.92	2454	
Well 14	8/3/2025	16:30	12.95	2456	
Well 14	8/3/2025	17:00	12.97	2457	
Well 14	8/3/2025	17:29	13.00	2461	
Well 14	8/3/2025	18:00	13.04	2463	
Well 14	8/3/2025	18:33	13.10	2472	
Well 14	8/3/2025	18:57	13.13	2475	
Well 14	8/3/2025	20:00	13.20	2480	
Well 14	8/3/2025	20:58	13.32	2480	
Well 14	8/3/2025	21:58	13.36	2482	
Well 14	8/3/2025	23:00	13.36	2481	
Well 14	8/4/2025	0:15	13.39	2482	
Well 14	8/4/2025	12:59	13.40	2481	
Well 14	8/4/2025	1:59	13.32	2483	
Well 14	8/4/2025	3:19	13.59	2483	
Well 14	8/4/2025	4:00	13.56	2485	
Well 14	8/4/2025	4:59	13.61	2490	
Well 14	8/4/2025	6:00	13.64	2487	
Well 14	8/4/2025	6:59	13.57	2482	
Well 14	8/4/2025	8:00	13.52	2477	
Well 14	8/4/2025	9:00	13.48	2468	
Well 14	8/4/2025	9:29	13.42	2463	
Well 14	8/4/2025	9:49	13.42	2466	
Well 14	8/4/2025	9:53	12.62	0	Well 14 120-hr Test - Pump Off
Well 14	8/4/2025	9:53	12.42	0	
Well 14	8/4/2025	9:53	12.31	0	
Well 14	8/4/2025	9:53	12.32	0	
Well 14	8/4/2025	9:53	12.32	0	
Well 14	8/4/2025	9:53	12.30	0	
Well 14	8/4/2025	9:54	12.30	0	
Well 14	8/4/2025	9:54	12.30	0	
Well 14	8/4/2025	9:55	12.29	0	
Well 14	8/4/2025	9:55	12.28	0	
Well 14	8/4/2025	9:56	12.29	0	
Well 14	8/4/2025	9:58	12.28	0	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	8/4/2025	10:00	12.28	0	
Well 14	8/4/2025	10:01	12.27	0	
Well 14	8/4/2025	10:02	12.26	0	
Well 14	8/4/2025	10:04	12.25	0	
Well 14	8/4/2025	10:05	12.26	0	
Well 14	8/4/2025	10:15	12.25	0	
Well 14	8/4/2025	10:27	12.23	0	
Well 14	8/4/2025	10:28	12.23	0	
Well 14	8/4/2025	10:36	12.16	0	
Well 14	8/4/2025	11:44	12.00	0	
Well 14	8/13/2025	9:23	12.97	0	Well 13 Cycle Test - Cycle 1 On (WLs monitored in Well 14)
Well 14	8/13/2025	10:14	12.99	0	
Well 14	8/13/2025	10:42	11.01	0	
Well 14	8/13/2025	11:07	13.03	0	
Well 14	8/13/2025	11:30	13.10	0	
Well 14	8/13/2025	12:33	13.20	0	
Well 14	8/13/2025	13:29	13.20	0	
Well 14	8/13/2025	14:24	13.20	0	
Well 14	8/13/2025	15:29	13.18	0	Well 13 Cycle Test - Cycle 1 Off at 15:00 (WLs monitored in Well 14)
Well 14	8/13/2025	16:11	13.15	0	
Well 14	8/13/2025	16:31	13.11	0	
Well 14	8/13/2025	17:29	13.08	0	
Well 14	8/13/2025	18:22	13.00	0	
Well 14	8/13/2025	19:36	13.00	0	Well 13 Cycle Test - Cycle 2 On at 19:00 (WLs monitored in Well 14)
Well 14	8/13/2025	20:04	12.98	0	
Well 14	8/13/2025	20:29	12.97	0	
Well 14	8/13/2025	20:58	12.98	0	
Well 14	8/13/2025	21:57	13.06	0	
Well 14	8/13/2025	22:57	13.18	0	
Well 14	8/13/2025	23:54	13.28	0	
Well 14	8/14/2025	0:57	13.42	0	
Well 14	8/14/2025	1:55	13.51	0	
Well 14	8/14/2025	3:02	13.53	0	
Well 14	8/14/2025	4:01	13.47	0	
Well 14	8/14/2025	6:14	13.42	0	
Well 14	8/14/2025	6:57	13.13	0	
Well 14	8/14/2025	7:30	13.08	0	Well 13 Cycle Test - Cycle 2 Off 7:08 (WLs monitored in Well 14)
Well 14	8/14/2025	8:07	13.03	0	
Well 14	8/14/2025	9:02	12.98	0	
Well 14	8/14/2025	10:01	12.92	0	
Well 14	8/14/2025	10:57	12.89	0	Well 13 Cycle Test - Cycle 3 On at 11:00 (WLs monitored in Well 14)
Well 14	8/14/2025	11:20	12.95	0	
Well 14	8/14/2025	11:44	13.01	0	
Well 14	8/14/2025	12:01	12.98	0	
Well 14	8/14/2025	13:04	13.08	0	
Well 14	8/14/2025	14:03	13.10	0	
Well 14	8/14/2025	15:04	13.18	0	
Well 14	8/14/2025	15:57	13.15	0	
Well 14	8/14/2025	16:14	13.12	0	Well 13 Cycle Test - Cycle 3 Off at 16:02 (WLs monitored in Well 14)
Well 14	8/16/2025	9:48	12.94	0	
Well 14	8/16/2025	10:35	12.85	0	Well 13 120-hr Test - Pump On at 10:00 (WLs monitored in Well 14)

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	8/16/2025	10:59	12.83	0	
Well 14	8/16/2025	11:27	12.78	0	
Well 14	8/16/2025	12:12	12.73	0	
Well 14	8/16/2025	13:05	12.75	0	
Well 14	8/16/2025	13:33	12.73	0	
Well 14	8/16/2025	14:03	12.73	0	
Well 14	8/16/2025	14:32	12.74	0	
Well 14	8/16/2025	15:03	12.79	0	
Well 14	8/16/2025	15:32	12.84	0	
Well 14	8/16/2025	16:02	12.89	0	
Well 14	8/16/2025	16:33	12.96	0	
Well 14	8/16/2025	17:04	12.98	0	
Well 14	8/16/2025	18:01	13.05	0	
Well 14	8/16/2025	18:59	13.11	0	
Well 14	8/16/2025	19:59	13.15	0	
Well 14	8/16/2025	20:59	13.18	0	
Well 14	8/16/2025	22:07	13.20	0	
Well 14	8/16/2025	23:08	13.23	0	
Well 14	8/17/2025	0:17	13.29	0	
Well 14	8/17/2025	1:04	13.33	0	
Well 14	8/17/2025	2:05	13.40	0	
Well 14	8/17/2025	2:56	13.46	0	
Well 14	8/17/2025	3:50	13.51	0	
Well 14	8/17/2025	4:56	13.55	0	
Well 14	8/17/2025	6:05	13.25	0	
Well 14	8/17/2025	7:03	13.14	0	
Well 14	8/17/2025	8:02	13.14	0	
Well 14	8/17/2025	9:02	12.91	0	
Well 14	8/17/2025	10:04	13.00	0	
Well 14	8/17/2025	11:03	13.85	0	
Well 14	8/17/2025	12:03	13.71	0	
Well 14	8/17/2025	13:03	13.71	0	
Well 14	8/17/2025	13:59	12.68	0	
Well 14	8/17/2025	15:00	12.69	0	
Well 14	8/17/2025	16:01	12.78	0	
Well 14	8/17/2025	17:02	12.88	0	
Well 14	8/17/2025	18:06	12.95	0	
Well 14	8/17/2025	19:02	13.09	0	
Well 14	8/17/2025	20:02	13.15	0	
Well 14	8/17/2025	21:02	13.16	0	
Well 14	8/17/2025	22:03	13.24	0	
Well 14	8/17/2025	23:04	13.24	0	
Well 14	8/18/2025	0:02	13.03	0	
Well 14	8/18/2025	1:01	13.25	0	
Well 14	8/18/2025	2:01	13.30	0	
Well 14	8/18/2025	3:03	13.39	0	
Well 14	8/18/2025	4:02	13.45	0	
Well 14	8/18/2025	5:02	13.50	0	
Well 14	8/18/2025	6:00	13.51	0	
Well 14	8/18/2025	7:02	13.48	0	
Well 14	8/18/2025	8:01	13.40	0	
Well 14	8/18/2025	9:01	13.29	0	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	8/18/2025	10:02	13.15	0	
Well 14	8/18/2025	10:57	13.03	0	
Well 14	8/18/2025	12:03	12.85	0	
Well 14	8/18/2025	12:59	12.74	0	
Well 14	8/18/2025	14:01	12.65	0	
Well 14	8/18/2025	15:03	12.62	0	
Well 14	8/18/2025	15:59	12.65	0	
Well 14	8/18/2025	16:59	12.73	0	
Well 14	8/18/2025	18:01	12.86	0	
Well 14	8/18/2025	18:57	12.98	0	
Well 14	8/18/2025	19:56	13.07	0	
Well 14	8/18/2025	21:06	13.16	0	
Well 14	8/18/2025	22:05	13.25	0	
Well 14	8/18/2025	22:59	13.29	0	
Well 14	8/19/2025	0:59	13.25	0	
Well 14	8/19/2025	2:04	13.29	0	
Well 14	8/19/2025	3:03	13.30	0	
Well 14	8/19/2025	4:05	13.35	0	
Well 14	8/19/2025	5:02	13.42	0	
Well 14	8/19/2025	6:05	13.46	0	
Well 14	8/19/2025	7:02	13.51	0	
Well 14	8/19/2025	7:59	13.50	0	
Well 14	8/19/2025	8:28	13.46	0	
Well 14	8/19/2025	10:04	13.35	0	
Well 14	8/19/2025	11:04	13.24	0	
Well 14	8/19/2025	12:01	13.05	0	
Well 14	8/19/2025	12:03	12.88	0	
Well 14	8/19/2025	13:04	12.79	0	
Well 14	8/19/2025	14:03	12.70	0	
Well 14	8/19/2025	15:02	12.60	0	
Well 14	8/19/2025	16:01	12.52	0	
Well 14	8/19/2025	17:04	12.53	0	
Well 14	8/19/2025	18:09	12.61	0	
Well 14	8/19/2025	19:11	12.76	0	
Well 14	8/19/2025	19:57	12.87	0	
Well 14	8/19/2025	21:01	13.01	0	
Well 14	8/19/2025	22:02	13.14	0	
Well 14	8/19/2025	23:16	13.18	0	
Well 14	8/20/2025	0:05	13.20	0	
Well 14	8/20/2025	1:04	13.20	0	
Well 14	8/20/2025	2:02	13.19	0	
Well 14	8/20/2025	3:03	13.15	0	
Well 14	8/20/2025	4:03	13.15	0	
Well 14	8/20/2025	5:00	13.15	0	
Well 14	8/20/2025	6:02	13.23	0	
Well 14	8/20/2025	7:02	13.30	0	
Well 14	8/20/2025	7:57	13.37	0	
Well 14	8/20/2025	9:03	13.42	0	
Well 14	8/20/2025	10:02	13.28	0	
Well 14	8/20/2025	11:49	12.99	0	
Well 14	8/20/2025	13:10	12.80	0	
Well 14	8/20/2025	14:05	12.65	0	

Kalaeloa Aquifer Testing Field Data - Well 14 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
Well 14	8/20/2025	15:03	12.58	0	
Well 14	8/20/2025	15:58	12.55	0	
Well 14	8/20/2025	16:59	12.61	0	
Well 14	8/20/2025	18:00	12.73	0	
Well 14	8/20/2025	18:56	12.86	0	
Well 14	8/20/2025	19:52	12.99	0	
Well 14	8/20/2025	20:53	13.10	0	
Well 14	8/20/2025	21:59	13.19	0	
Well 14	8/20/2025	23:05	13.20	0	
Well 14	8/20/2025	0:04	13.25	0	
Well 14	8/20/2025	1:10	13.21	0	
Well 14	8/20/2025	2:02	13.20	0	
Well 14	8/20/2025	3:04	13.21	0	
Well 14	8/20/2025	4:02	13.22	0	
Well 14	8/20/2025	5:01	13.25	0	
Well 14	8/20/2025	6:03	13.32	0	
Well 14	8/20/2025	7:01	13.39	0	
Well 14	8/20/2025	8:01	13.51	0	
Well 14	8/20/2025	9:02	13.48	0	
Well 14	8/20/2025	10:01	13.43	0	Well 13 120-hr Test - Pump Off at 10:10 (WLs monitored in Well 14)
Well 14	8/20/2025	10:33	13.40	0	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	4/26/2025	16:13	14.28	0	
Well 15	5/2/2025	13:33	14.88	0	
Well 15	5/12/2025	11:32	14.66	0	
Well 15	5/15/2025	10:10	14.98	0	
Well 15	5/15/2025	10:29	14.99	0	
Well 15	5/22/2025	13:15	14.71	0	
Well 15	5/22/2025	13:17	14.71	0	
Well 15	5/22/2025	15:00	14.70	0	
Well 15	5/30/2025	14:28	14.92	0	
Well 15	6/6/2025	10:54	14.94	0	
Well 15	6/6/2025	11:07	14.95	0	
Well 15	6/17/2025	15:30	14.93	0	
Well 15	6/18/2025	10:41	14.90	0	
Well 15	6/18/2025	10:45	14.92	0	
Well 15	6/23/2025	9:15	15.02	0	
Well 15	6/26/2025	12:34	14.80	0	
Well 15	6/26/2025	12:35	14.79	0	
Well 15	6/26/2025	12:36	14.80	0	
Well 15	6/30/2025	13:27	14.91	0	
Well 15	7/7/2025	7:18	15.11	0	
Well 15	7/7/2025	7:19	15.11	0	
Well 15	7/7/2025	7:32	15.14	0	
Well 15	7/7/2025	7:33	15.14	0	
Well 15	7/7/2025	7:40	15.14	0	
Well 15	7/7/2025	7:55	15.15	0	
Well 15	7/7/2025	8:15	15.15	0	
Well 15	7/7/2025	8:20	15.15	0	
Well 15	7/7/2025	8:31	15.14	0	
Well 15	7/7/2025	8:35	15.15	0	
Well 15	7/7/2025	8:37	17.64	2200	Well 15 Step Test - Step 1
Well 15	7/7/2025	8:38	18.89	2301	
Well 15	7/7/2025	8:39	19.29	2258	
Well 15	7/7/2025	8:40	19.32	2249	
Well 15	7/7/2025	8:41	19.38	2255	
Well 15	7/7/2025	8:41	19.43	2263	
Well 15	7/7/2025	8:42	19.52	2256	
Well 15	7/7/2025	8:43	19.55	2254	
Well 15	7/7/2025	8:43	19.62	2249	
Well 15	7/7/2025	8:44	19.54	2247	
Well 15	7/7/2025	8:44	19.63	2251	
Well 15	7/7/2025	8:45	19.62	2246	
Well 15	7/7/2025	8:46	19.68	2241	
Well 15	7/7/2025	8:46	19.66	2243	
Well 15	7/7/2025	8:47	19.67	2242	
Well 15	7/7/2025	8:48	19.67	2239	
Well 15	7/7/2025	8:49	19.67	2239	
Well 15	7/7/2025	8:51	19.65	2239	
Well 15	7/7/2025	8:54	19.70	2243	
Well 15	7/7/2025	8:56	19.70	2234	
Well 15	7/7/2025	9:02	19.68	2205	
Well 15	7/7/2025	9:05	19.65	2211	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/7/2025	9:07	19.61	2209	
Well 15	7/7/2025	9:09	19.61	2207	
Well 15	7/7/2025	9:12	19.62	2206	
Well 15	7/7/2025	9:18	19.58	2197	
Well 15	7/7/2025	9:21	19.65	2200	
Well 15	7/7/2025	9:22	19.61	2202	
Well 15	7/7/2025	9:25	19.61	2192	
Well 15	7/7/2025	9:31	19.59	2197	
Well 15	7/7/2025	9:36	19.59	2189	
Well 15	7/7/2025	9:40	19.61	2189	
Well 15	7/7/2025	9:49	19.61	2185	
Well 15	7/7/2025	10:00	19.61	2188	Well 15 Step Test - Step 2
Well 15	7/7/2025	10:01	22.80	2854	
Well 15	7/7/2025	10:02	21.90	2894	
Well 15	7/7/2025	10:02	21.79	2805	
Well 15	7/7/2025	10:02	21.04	2722	
Well 15	7/7/2025	10:03	20.88	n/a	
Well 15	7/7/2025	10:04	21.02	2704	
Well 15	7/7/2025	10:04	21.17	2739	
Well 15	7/7/2025	10:05	21.24	2812	
Well 15	7/7/2025	10:05	21.05	2751	
Well 15	7/7/2025	10:06	21.05	2733	
Well 15	7/7/2025	10:06	21.12	2733	
Well 15	7/7/2025	10:07	21.04	2728	
Well 15	7/7/2025	10:07	21.05	2725	
Well 15	7/7/2025	10:11	21.02	2712	
Well 15	7/7/2025	10:12	20.98	2703	
Well 15	7/7/2025	10:14	20.89	2708	
Well 15	7/7/2025	10:14	20.97	2711	
Well 15	7/7/2025	10:15	20.99	2705	
Well 15	7/7/2025	10:16	20.97	2702	
Well 15	7/7/2025	10:16	20.97	2702	
Well 15	7/7/2025	10:17	20.97	2714	
Well 15	7/7/2025	10:20	20.97	2710	
Well 15	7/7/2025	10:22	20.99	2697	
Well 15	7/7/2025	10:22	20.99	2697	
Well 15	7/7/2025	10:28	20.91	2698	
Well 15	7/7/2025	10:32	20.90	2686	
Well 15	7/7/2025	10:37	20.91	2686	
Well 15	7/7/2025	10:42	20.89	2680	
Well 15	7/7/2025	10:52	20.92	2684	
Well 15	7/7/2025	11:00	20.91	2686	
Well 15	7/7/2025	11:05	20.90	2680	
Well 15	7/7/2025	11:10	20.92	2693	
Well 15	7/7/2025	11:12	22.98	3211	Well 15 Step Test - Step 3
Well 15	7/7/2025	11:13	23.94	3417	
Well 15	7/7/2025	11:14	22.99	3417	
Well 15	7/7/2025	11:15	22.95	3316	
Well 15	7/7/2025	11:16	22.94	3317	
Well 15	7/7/2025	11:17	22.92	3315	
Well 15	7/7/2025	11:17	22.91	3317	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/7/2025	11:18	22.84	3306	
Well 15	7/7/2025	11:19	22.89	3302	
Well 15	7/7/2025	11:20	22.88	3304	
Well 15	7/7/2025	11:21	22.87	3304	
Well 15	7/7/2025	11:22	22.86	3300	
Well 15	7/7/2025	11:23	22.86	3299	
Well 15	7/7/2025	11:24	22.85	3294	
Well 15	7/7/2025	11:25	22.85	3305	
Well 15	7/7/2025	11:28	22.85	3295	
Well 15	7/7/2025	11:30	22.84	3301	
Well 15	7/7/2025	11:31	22.84	3288	
Well 15	7/7/2025	11:33	22.84	3288	
Well 15	7/7/2025	11:35	22.86	3306	
Well 15	7/7/2025	11:39	22.85	3301	
Well 15	7/7/2025	11:47	22.81	3291	
Well 15	7/7/2025	11:50	22.77	3280	
Well 15	7/7/2025	11:53	22.79	3278	
Well 15	7/7/2025	11:55	22.80	3277	
Well 15	7/7/2025	12:03	22.79	3269	
Well 15	7/7/2025	12:10	22.75	3262	
Well 15	7/7/2025	12:15	22.70	3262	
Well 15	7/7/2025	12:18	22.72	3259	
Well 15	7/7/2025	12:25	22.69	3255	
Well 15	7/7/2025	12:28	22.67	n/a	Well 15 Step Test - Step 4
Well 15	7/7/2025	12:29	23.42	3453	
Well 15	7/7/2025	12:29	24.31	3615	
Well 15	7/7/2025	12:30	24.49	3681	
Well 15	7/7/2025	12:31	24.23	3720	
Well 15	7/7/2025	12:32	24.27	3718	
Well 15	7/7/2025	12:32	24.32	3710	
Well 15	7/7/2025	12:33	24.20	3687	
Well 15	7/7/2025	12:33	24.28	3697	
Well 15	7/7/2025	12:34	24.17	3685	
Well 15	7/7/2025	12:34	24.13	3688	
Well 15	7/7/2025	12:35	24.16	3690	
Well 15	7/7/2025	12:35	24.27	3690	
Well 15	7/7/2025	12:36	24.27	3693	
Well 15	7/7/2025	12:36	24.27	3700	
Well 15	7/7/2025	12:37	24.24	3699	
Well 15	7/7/2025	12:37	24.18	3678	
Well 15	7/7/2025	12:38	24.18	3690	
Well 15	7/7/2025	12:39	24.25	3699	
Well 15	7/7/2025	12:40	24.27	3696	
Well 15	7/7/2025	12:40	24.22	3695	
Well 15	7/7/2025	12:41	24.25	3696	
Well 15	7/7/2025	12:42	24.19	3681	
Well 15	7/7/2025	12:43	24.15	3682	
Well 15	7/7/2025	12:43	24.20	3689	
Well 15	7/7/2025	12:44	24.21	3706	
Well 15	7/7/2025	12:45	24.17	3689	
Well 15	7/7/2025	12:50	24.25	3688	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/7/2025	12:55	24.14	3661	
Well 15	7/7/2025	12:58	24.27	3700	
Well 15	7/7/2025	13:00	24.25	3681	
Well 15	7/7/2025	13:03	24.21	3680	
Well 15	7/7/2025	13:05	24.18	3685	
Well 15	7/7/2025	13:10	24.19	3682	
Well 15	7/7/2025	13:15	24.17	3666	
Well 15	7/7/2025	13:20	24.14	3668	
Well 15	7/7/2025	13:28	24.18	3678	
Well 15	7/7/2025	13:32	24.17	3680	
Well 15	7/7/2025	13:36	24.20	3683	
Well 15	7/7/2025	13:45	24.12	3658	
Well 15	7/7/2025	13:50	24.11	3667	
Well 15	7/7/2025	13:51	24.08	3661	
Well 15	7/7/2025	13:55	10.20	0	Well 15 Step Test - Pump Off
Well 15	7/7/2025	13:55	10.08	0	
Well 15	7/7/2025	13:56	13.12	0	
Well 15	7/7/2025	13:57	15.50	0	
Well 15	7/7/2025	13:59	16.65	0	
Well 15	7/7/2025	13:59	16.54	0	
Well 15	7/7/2025	14:00	16.43	0	
Well 15	7/7/2025	14:01	16.22	0	
Well 15	7/7/2025	14:02	16.25	0	
Well 15	7/7/2025	14:03	16.28	0	
Well 15	7/7/2025	14:04	16.26	0	
Well 15	7/7/2025	14:05	16.26	0	
Well 15	7/7/2025	14:06	16.26	0	
Well 15	7/7/2025	14:10	16.20	0	
Well 15	7/7/2025	14:15	16.20	0	
Well 15	7/7/2025	14:20	16.19	0	
Well 15	7/7/2025	14:30	16.16	0	
Well 15	7/7/2025	14:35	16.13	0	
Well 15	7/7/2025	14:40	16.11	0	
Well 15	7/7/2025	14:45	16.09	0	
Well 15	7/7/2025	14:50	16.08	0	
Well 15	7/7/2025	14:55	16.07	0	
Well 15	7/7/2025	15:00	16.06	0	
Well 15	7/7/2025	15:05	16.05	0	
Well 15	7/9/2025	8:50	15.23	0	
Well 15	7/9/2025	8:52	15.25	0	
Well 15	7/9/2025	8:53	15.25	0	
Well 15	7/9/2025	9:30	15.26	0	
Well 15	7/9/2025	9:32	15.26	0	
Well 15	7/9/2025	9:37	15.26	0	
Well 15	7/9/2025	9:53	20.10	3700	Well 15 Cycle Test - Cycle 1 On
Well 15	7/9/2025	9:54	17.81	3400	
Well 15	7/9/2025	9:56	22.56	3200	
Well 15	7/9/2025	9:56	22.78	3302	
Well 15	7/9/2025	9:57	22.83	3308	
Well 15	7/9/2025	9:58	22.88	3305	
Well 15	7/9/2025	9:59	22.89	3312	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/9/2025	9:59	22.94	3304	
Well 15	7/9/2025	10:00	22.97	3306	
Well 15	7/9/2025	10:01	22.97	3307	
Well 15	7/9/2025	10:02	22.91	3311	
Well 15	7/9/2025	10:03	22.88	3308	
Well 15	7/9/2025	10:03	22.94	n/a	
Well 15	7/9/2025	10:04	22.97	3321	
Well 15	7/9/2025	10:05	22.94	3313	
Well 15	7/9/2025	10:06	22.92	3319	
Well 15	7/9/2025	10:07	22.91	3311	
Well 15	7/9/2025	10:08	22.91	3302	
Well 15	7/9/2025	10:09	22.91	3307	
Well 15	7/9/2025	10:22	22.89	3294	
Well 15	7/9/2025	10:23	22.89	3285	
Well 15	7/9/2025	10:24	22.86	3288	
Well 15	7/9/2025	10:34	22.90	3300	
Well 15	7/9/2025	10:44	22.90	3283	
Well 15	7/9/2025	11:18	22.97	3307	
Well 15	7/9/2025	11:28	22.97	3324	
Well 15	7/9/2025	11:45	23.00	3325	
Well 15	7/9/2025	12:08	22.91	3305	
Well 15	7/9/2025	12:18	22.87	3284	
Well 15	7/9/2025	12:30	22.82	3277	
Well 15	7/9/2025	12:48	22.77	3265	
Well 15	7/9/2025	13:01	22.70	3252	
Well 15	7/9/2025	13:13	22.65	3250	
Well 15	7/9/2025	13:27	22.72	3234	
Well 15	7/9/2025	13:41	22.60	3236	
Well 15	7/9/2025	14:08	22.58	3222	
Well 15	7/9/2025	14:31	22.53	3223	
Well 15	7/9/2025	14:47	22.45	3206	
Well 15	7/9/2025	15:16	0.00	3194	
Well 15	7/9/2025	15:23	22.38	3175	
Well 15	7/9/2025	15:28	22.31	3183	
Well 15	7/9/2025	15:30	0.00	0	Well 15 Cycle Test - Cycle 1 Off
Well 15	7/9/2025	15:31	9.82	0	
Well 15	7/9/2025	15:32	17.32	0	
Well 15	7/9/2025	15:33	17.52	0	
Well 15	7/9/2025	15:33	16.23	0	
Well 15	7/9/2025	15:34	17.02	0	
Well 15	7/9/2025	15:35	16.70	0	
Well 15	7/9/2025	15:36	16.15	0	
Well 15	7/9/2025	15:37	16.10	0	
Well 15	7/9/2025	15:38	16.23	0	
Well 15	7/9/2025	15:38	16.30	0	
Well 15	7/9/2025	15:39	16.29	0	
Well 15	7/9/2025	15:40	16.18	0	
Well 15	7/9/2025	15:41	16.25	0	
Well 15	7/9/2025	15:42	16.25	0	
Well 15	7/9/2025	15:43	16.22	0	
Well 15	7/9/2025	15:44	16.20	0	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/9/2025	15:45	16.22	0	
Well 15	7/9/2025	15:50	16.21	0	
Well 15	7/9/2025	15:58	16.18	0	
Well 15	7/9/2025	16:33	16.09	0	
Well 15	7/9/2025	17:27	15.99	0	
Well 15	7/9/2025	18:13	15.93	0	
Well 15	7/9/2025	18:44	15.89	0	
Well 15	7/9/2025	18:56	15.89	0	
Well 15	7/9/2025	19:18	19.13	3300	Well 15 Cycle Test - Cycle 2 On
Well 15	7/9/2025	19:21	22.28	3454	
Well 15	7/9/2025	19:22	22.90	3299	
Well 15	7/9/2025	19:23	22.65	3299	
Well 15	7/9/2025	19:24	22.75	3301	
Well 15	7/9/2025	19:29	22.80	3297	
Well 15	7/9/2025	19:41	22.69	3275	
Well 15	7/9/2025	19:57	22.78	3288	
Well 15	7/9/2025	20:19	22.88	3298	
Well 15	7/9/2025	20:30	22.88	3296	
Well 15	7/10/2025	20:40	22.86	3300	
Well 15	7/10/2025	20:50	22.85	3299	
Well 15	7/10/2025	21:00	22.85	3300	
Well 15	7/10/2025	21:15	22.85	3309	
Well 15	7/10/2025	21:30	22.87	3311	
Well 15	7/10/2025	21:45	22.91	3300	
Well 15	7/10/2025	22:00	22.95	3310	
Well 15	7/10/2025	22:15	22.98	3315	
Well 15	7/10/2025	22:30	22.94	3310	
Well 15	7/10/2025	22:45	22.92	3303	
Well 15	7/10/2025	23:00	22.94	3307	
Well 15	7/10/2025	0:00	22.93	3309	
Well 15	7/10/2025	1:00	22.90	3305	
Well 15	7/10/2025	3:00	22.88	3311	
Well 15	7/10/2025	4:00	22.93	3302	
Well 15	7/10/2025	5:00	22.93	3310	
Well 15	7/10/2025	6:00	22.93	3299	
Well 15	7/10/2025	7:00	22.93	n/a	
Well 15	7/10/2025	7:03	22.93	n/a	
Well 15	7/10/2025	7:08	22.98	3305	
Well 15	7/10/2025	7:12	22.92	n/a	
Well 15	7/10/2025	7:20	22.97	0	Well 15 Cycle Test - Cycle 2 Off
Well 15	7/10/2025	7:22	0.00	0	
Well 15	7/10/2025	7:24	5.77	0	
Well 15	7/10/2025	7:24	10.17	0	
Well 15	7/10/2025	7:25	9.83	0	
Well 15	7/10/2025	7:25	13.72	0	
Well 15	7/10/2025	7:27	16.31	0	
Well 15	7/10/2025	7:27	17.21	0	
Well 15	7/10/2025	7:28	16.97	0	
Well 15	7/10/2025	7:29	16.78	0	
Well 15	7/10/2025	7:30	16.62	0	
Well 15	7/10/2025	7:32	16.47	0	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/10/2025	7:33	16.50	0	
Well 15	7/10/2025	7:35	16.56	0	
Well 15	7/10/2025	7:37	16.52	0	
Well 15	7/10/2025	7:38	16.48	0	
Well 15	7/10/2025	7:39	16.46	0	
Well 15	7/10/2025	7:41	16.47	0	
Well 15	7/10/2025	7:43	16.44	0	
Well 15	7/10/2025	7:45	16.46	0	
Well 15	7/10/2025	7:50	16.45	0	
Well 15	7/10/2025	7:55	16.44	0	
Well 15	7/10/2025	8:00	16.42	0	
Well 15	7/10/2025	8:41	16.35	0	
Well 15	7/10/2025	8:59	16.31	0	
Well 15	7/10/2025	9:21	16.29	0	
Well 15	7/10/2025	9:39	16.26	0	
Well 15	7/10/2025	10:14	16.22	0	
Well 15	7/10/2025	10:40	16.19	0	
Well 15	7/10/2025	10:52	16.10	0	
Well 15	7/10/2025	11:02	16.16	0	
Well 15	7/10/2025	11:04	26.74	3511	Well 15 Cycle Test - Cycle 3 On
Well 15	7/10/2025	11:05	22.22	3221	
Well 15	7/10/2025	11:06	22.91	3244	
Well 15	7/10/2025	11:06	22.93	3440	
Well 15	7/10/2025	11:07	23.31	3424	
Well 15	7/10/2025	11:08	32.20	3416	
Well 15	7/10/2025	11:08	22.69	3349	
Well 15	7/10/2025	11:09	22.97	3338	
Well 15	7/10/2025	11:09	23.00	3322	
Well 15	7/10/2025	11:10	22.93	3321	
Well 15	7/10/2025	11:11	22.93	3326	
Well 15	7/10/2025	11:11	22.88	3313	
Well 15	7/10/2025	11:12	22.89	3306	
Well 15	7/10/2025	11:12	22.90	3302	
Well 15	7/10/2025	11:13	22.93	3299	
Well 15	7/10/2025	11:14	22.93	3308	
Well 15	7/10/2025	11:16	22.94	3308	
Well 15	7/10/2025	11:18	22.91	3298	
Well 15	7/10/2025	11:20	22.91	3297	
Well 15	7/10/2025	11:22	22.86	3290	
Well 15	7/10/2025	11:24	22.88	3289	
Well 15	7/10/2025	11:27	22.87	3288	
Well 15	7/10/2025	11:32	22.85	3281	
Well 15	7/10/2025	11:42	22.84	3280	
Well 15	7/10/2025	11:52	22.86	3278	
Well 15	7/10/2025	12:02	22.86	3282	
Well 15	7/10/2025	12:12	22.76	3261	
Well 15	7/10/2025	12:30	22.70	3251	
Well 15	7/10/2025	12:45	22.78	3266	
Well 15	7/10/2025	13:00	22.69	3255	
Well 15	7/10/2025	13:15	22.75	3257	
Well 15	7/10/2025	13:30	22.64	3249	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/10/2025	13:46	22.67	3244	
Well 15	7/10/2025	14:00	22.68	3241	
Well 15	7/10/2025	14:15	22.59	3242	
Well 15	7/10/2025	14:30	22.66	3241	
Well 15	7/10/2025	14:45	22.52	n/a	
Well 15	7/10/2025	14:59	22.63	3241	
Well 15	7/10/2025	15:01	0.00	0	Well 15 Cycle Test - Cycle 3 Off
Well 15	7/10/2025	15:02	8.41	0	
Well 15	7/10/2025	15:02	10.10	0	
Well 15	7/10/2025	15:02	10.18	0	
Well 15	7/10/2025	15:03	10.07	0	
Well 15	7/10/2025	15:03	10.04	0	
Well 15	7/10/2025	15:04	12.85	0	
Well 15	7/10/2025	15:05	15.87	0	
Well 15	7/10/2025	15:06	16.75	0	
Well 15	7/10/2025	15:06	16.09	0	
Well 15	7/10/2025	15:07	16.46	0	
Well 15	7/10/2025	15:07	16.15	0	
Well 15	7/10/2025	15:07	16.32	0	
Well 15	7/10/2025	15:08	16.27	0	
Well 15	7/10/2025	15:08	16.21	0	
Well 15	7/10/2025	15:09	16.34	0	
Well 15	7/10/2025	15:09	16.23	0	
Well 15	7/10/2025	15:10	16.27	0	
Well 15	7/10/2025	15:11	16.26	0	
Well 15	7/10/2025	15:12	16.28	0	
Well 15	7/10/2025	15:13	16.25	0	
Well 15	7/10/2025	15:14	16.25	0	
Well 15	7/10/2025	15:15	16.25	0	
Well 15	7/10/2025	15:18	16.24	0	
Well 15	7/10/2025	15:20	16.24	0	
Well 15	7/10/2025	15:22	16.22	0	
Well 15	7/10/2025	15:24	16.21	0	
Well 15	7/10/2025	15:26	16.20	0	
Well 15	7/10/2025	15:28	16.19	0	
Well 15	7/10/2025	15:30	16.19	0	
Well 15	7/10/2025	15:35	16.18	0	
Well 15	7/10/2025	15:40	16.17	0	
Well 15	7/10/2025	15:45	16.15	0	
Well 15	7/10/2025	15:50	16.14	0	
Well 15	7/12/2025	9:03	15.23	0	
Well 15	7/12/2025	9:05	15.23	0	
Well 15	7/12/2025	9:07	15.22	0	
Well 15	7/12/2025	9:08	15.22	0	
Well 15	7/12/2025	9:24	15.23	0	
Well 15	7/12/2025	9:26	15.23	0	
Well 15	7/12/2025	9:27	15.23	0	
Well 15	7/12/2025	9:28	15.23	0	
Well 15	7/12/2025	9:30	21.53	3636	Well 15 120-hr Test - Pump On
Well 15	7/12/2025	9:31	21.79	3369	
Well 15	7/12/2025	9:32	22.43	3333	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/12/2025	9:33	22.84	3337	
Well 15	7/12/2025	9:34	22.78	3324	
Well 15	7/12/2025	9:35	22.79	3319	
Well 15	7/12/2025	9:36	22.81	3303	
Well 15	7/12/2025	9:36	22.89	3303	
Well 15	7/12/2025	9:38	22.88	3310	
Well 15	7/12/2025	9:38	22.79	3303	
Well 15	7/12/2025	9:39	22.76	3289	
Well 15	7/12/2025	9:40	22.79	3286	
Well 15	7/12/2025	9:41	22.83	3291	
Well 15	7/12/2025	9:42	22.81	3289	
Well 15	7/12/2025	9:43	22.79	3283	
Well 15	7/12/2025	9:44	22.80	3279	
Well 15	7/12/2025	9:45	22.77	3274	
Well 15	7/12/2025	9:46	22.78	3273	
Well 15	7/12/2025	9:47	22.77	3272	
Well 15	7/12/2025	9:48	22.74	3264	
Well 15	7/12/2025	9:52	22.71	3268	
Well 15	7/12/2025	9:55	22.74	3267	
Well 15	7/12/2025	10:01	22.73	3271	
Well 15	7/12/2025	10:06	22.83	3283	
Well 15	7/12/2025	10:11	22.83	3258	
Well 15	7/12/2025	10:20	22.79	3265	
Well 15	7/12/2025	10:40	22.83	3263	
Well 15	7/12/2025	10:50	22.70	3262	
Well 15	7/12/2025	10:55	22.75	3267	
Well 15	7/12/2025	11:00	22.81	3264	
Well 15	7/12/2025	11:10	22.84	3269	
Well 15	7/12/2025	11:20	22.79	3257	
Well 15	7/12/2025	11:30	22.77	3254	
Well 15	7/12/2025	11:40	22.74	3260	
Well 15	7/12/2025	11:50	22.74	3248	
Well 15	7/12/2025	12:00	22.70	3252	
Well 15	7/12/2025	12:15	22.72	3246	
Well 15	7/12/2025	12:30	22.65	3235	
Well 15	7/12/2025	13:00	22.66	3236	
Well 15	7/12/2025	13:15	22.62	3241	
Well 15	7/12/2025	13:30	22.61	3228	
Well 15	7/12/2025	13:45	22.60	3234	
Well 15	7/12/2025	14:00	22.60	3227	
Well 15	7/12/2025	14:15	22.57	3223	
Well 15	7/12/2025	14:30	22.55	3228	
Well 15	7/12/2025	14:45	22.54	3223	
Well 15	7/12/2025	15:00	22.52	3221	
Well 15	7/12/2025	15:15	22.54	3213	
Well 15	7/12/2025	15:30	22.57	3228	
Well 15	7/12/2025	15:45	22.57	3236	
Well 15	7/12/2025	16:00	22.57	3244	
Well 15	7/12/2025	16:15	22.57	3230	
Well 15	7/12/2025	16:30	22.60	3236	
Well 15	7/12/2025	16:45	22.55	3244	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/12/2025	17:00	22.60	3249	
Well 15	7/12/2025	17:15	22.57	3246	
Well 15	7/12/2025	17:30	22.55	3249	
Well 15	7/12/2025	17:45	22.55	3234	
Well 15	7/12/2025	18:00	22.55	3244	
Well 15	7/12/2025	18:15	22.54	3244	
Well 15	7/12/2025	18:30	22.60	3232	
Well 15	7/12/2025	18:45	22.57	3255	
Well 15	7/12/2025	19:00	22.64	3256	
Well 15	7/12/2025	19:15	22.37	3251	
Well 15	7/12/2025	19:30	22.57	3264	
Well 15	7/12/2025	19:45	22.65	3260	
Well 15	7/12/2025	20:00	22.57	3249	
Well 15	7/12/2025	20:15	22.93	3260	
Well 15	7/12/2025	20:30	22.63	3259	
Well 15	7/12/2025	20:45	22.69	3254	
Well 15	7/12/2025	21:00	22.74	3269	
Well 15	7/12/2025	22:00	22.69	3245	
Well 15	7/12/2025	23:00	22.74	3261	
Well 15	7/13/2025	0:00	22.75	3255	
Well 15	7/13/2025	1:00	22.70	3252	
Well 15	7/13/2025	2:00	22.25	3230	
Well 15	7/13/2025	3:00	22.12	3249	
Well 15	7/13/2025	4:00	22.74	3272	
Well 15	7/13/2025	5:00	22.87	3231	
Well 15	7/13/2025	6:00	22.69	3250	
Well 15	7/13/2025	7:00	22.55	3209	
Well 15	7/13/2025	7:15	22.89	3305	
Well 15	7/13/2025	7:30	22.88	3296	
Well 15	7/13/2025	7:45	22.85	3281	
Well 15	7/13/2025	8:00	22.82	3268	
Well 15	7/13/2025	8:15	22.76	3257	
Well 15	7/13/2025	8:30	22.69	3244	
Well 15	7/13/2025	8:45	22.79	3258	
Well 15	7/13/2025	9:00	22.77	3249	
Well 15	7/13/2025	9:15	22.79	3254	
Well 15	7/13/2025	9:30	22.81	3249	
Well 15	7/13/2025	9:45	22.81	3247	
Well 15	7/13/2025	10:00	22.80	3231	
Well 15	7/13/2025	10:15	22.72	3228	
Well 15	7/13/2025	10:30	22.78	3218	
Well 15	7/13/2025	10:45	22.80	3224	
Well 15	7/13/2025	11:00	22.70	3214	
Well 15	7/13/2025	11:15	22.60	3209	
Well 15	7/13/2025	11:30	22.67	3220	
Well 15	7/13/2025	11:45	22.74	3229	
Well 15	7/13/2025	12:00	22.75	3223	
Well 15	7/13/2025	12:15	22.65	3219	
Well 15	7/13/2025	12:30	22.67	3206	
Well 15	7/13/2025	12:45	22.65	3212	
Well 15	7/13/2025	13:00	22.65	3216	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/13/2025	13:15	22.80	3223	
Well 15	7/13/2025	13:30	22.68	3208	
Well 15	7/13/2025	13:45	22.62	3210	
Well 15	7/13/2025	14:00	22.65	3203	
Well 15	7/13/2025	14:15	22.65	3217	
Well 15	7/13/2025	14:30	22.62	3221	
Well 15	7/13/2025	14:45	22.62	3220	
Well 15	7/13/2025	15:00	22.65	3225	
Well 15	7/13/2025	15:15	22.60	3226	
Well 15	7/13/2025	15:30	22.57	3212	
Well 15	7/13/2025	15:45	22.60	3218	
Well 15	7/13/2025	16:00	22.55	3215	
Well 15	7/13/2025	16:15	22.51	3213	
Well 15	7/13/2025	16:30	22.44	3202	
Well 15	7/13/2025	16:45	22.49	3226	
Well 15	7/13/2025	17:00	22.53	3219	
Well 15	7/13/2025	17:15	22.50	3218	
Well 15	7/13/2025	17:30	22.48	3220	
Well 15	7/13/2025	17:45	22.55	3212	
Well 15	7/13/2025	18:00	22.53	3225	
Well 15	7/13/2025	19:00	22.57	3243	
Well 15	7/13/2025	20:00	22.58	3240	
Well 15	7/13/2025	21:00	22.62	3242	
Well 15	7/13/2025	22:00	22.69	3251	
Well 15	7/13/2025	23:00	22.71	3251	
Well 15	7/14/2025	0:00	22.79	3256	
Well 15	7/14/2025	1:00	22.46	3245	
Well 15	7/14/2025	2:00	22.75	3253	
Well 15	7/14/2025	3:00	22.81	3271	
Well 15	7/14/2025	4:00	22.76	3263	
Well 15	7/14/2025	5:00	22.59	3268	
Well 15	7/14/2025	6:00	22.85	3280	
Well 15	7/14/2025	7:00	22.74	3268	
Well 15	7/14/2025	7:15	22.42	3255	
Well 15	7/14/2025	7:30	22.70	3246	
Well 15	7/14/2025	7:45	22.76	3243	
Well 15	7/14/2025	8:00	22.76	3234	
Well 15	7/14/2025	8:15	22.73	3230	
Well 15	7/14/2025	8:30	22.70	3236	
Well 15	7/14/2025	8:45	22.71	3233	
Well 15	7/14/2025	9:00	22.63	3230	
Well 15	7/14/2025	9:30	22.71	3225	
Well 15	7/14/2025	10:00	22.68	3215	
Well 15	7/14/2025	10:30	22.65	3194	
Well 15	7/14/2025	11:00	22.63	3198	
Well 15	7/14/2025	11:30	22.62	3202	
Well 15	7/14/2025	12:00	22.71	3202	
Well 15	7/14/2025	12:30	22.62	3209	
Well 15	7/14/2025	13:00	22.62	3202	
Well 15	7/14/2025	13:30	22.61	3185	
Well 15	7/14/2025	14:00	22.56	3195	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/14/2025	14:30	22.57	3191	
Well 15	7/14/2025	15:00	22.53	3177	
Well 15	7/14/2025	15:30	22.50	3176	
Well 15	7/14/2025	16:00	22.39	3154	
Well 15	7/14/2025	16:30	22.35	3153	
Well 15	7/14/2025	17:00	22.43	3170	
Well 15	7/14/2025	17:30	22.39	3183	
Well 15	7/14/2025	18:00	22.43	3187	
Well 15	7/14/2025	18:30	22.61	3239	
Well 15	7/14/2025	19:00	22.63	3233	
Well 15	7/14/2025	19:30	22.64	3242	
Well 15	7/14/2025	20:00	22.61	3241	
Well 15	7/14/2025	21:00	22.68	3244	
Well 15	7/14/2025	22:00	22.66	3233	
Well 15	7/14/2025	23:00	22.71	3240	
Well 15	7/15/2025	0:00	22.85	3255	
Well 15	7/15/2025	1:00	22.79	3247	
Well 15	7/15/2025	2:00	22.73	3240	
Well 15	7/15/2025	3:00	22.82	3230	
Well 15	7/15/2025	4:00	22.80	3248	
Well 15	7/15/2025	5:00	22.75	3257	
Well 15	7/15/2025	6:00	22.82	3255	
Well 15	7/15/2025	7:00	22.75	3239	
Well 15	7/15/2025	7:30	22.73	3232	
Well 15	7/15/2025	8:00	22.74	3221	
Well 15	7/15/2025	8:30	22.72	3230	
Well 15	7/15/2025	9:00	22.60	3201	
Well 15	7/15/2025	9:30	22.64	3215	
Well 15	7/15/2025	10:00	22.69	3229	
Well 15	7/15/2025	10:30	22.65	3211	
Well 15	7/15/2025	11:00	22.62	3195	
Well 15	7/15/2025	11:30	22.62	3187	
Well 15	7/15/2025	12:00	22.59	3179	
Well 15	7/15/2025	12:30	22.57	3191	
Well 15	7/15/2025	13:00	22.71	3217	
Well 15	7/15/2025	13:30	22.84	3276	
Well 15	7/15/2025	14:00	22.90	3281	
Well 15	7/15/2025	14:30	22.88	3282	
Well 15	7/15/2025	15:00	22.89	3272	
Well 15	7/15/2025	15:30	22.82	3276	
Well 15	7/15/2025	16:30	22.78	3273	
Well 15	7/15/2025	17:00	22.67	3258	
Well 15	7/15/2025	17:30	22.71	3245	
Well 15	7/15/2025	18:00	22.72	3271	
Well 15	7/15/2025	18:30	22.79	3293	
Well 15	7/15/2025	19:00	22.78	3300	
Well 15	7/15/2025	20:00	22.78	3295	
Well 15	7/15/2025	21:00	22.86	3304	
Well 15	7/15/2025	22:00	22.90	3303	
Well 15	7/15/2025	23:00	22.94	3312	
Well 15	7/16/2025	0:00	22.93	3309	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/16/2025	1:00	22.99	3307	
Well 15	7/16/2025	2:00	23.03	3313	
Well 15	7/16/2025	3:00	23.00	3310	
Well 15	7/16/2025	4:00	22.98	3308	
Well 15	7/16/2025	5:00	22.99	3311	
Well 15	7/16/2025	6:00	22.98	3301	
Well 15	7/16/2025	7:00	22.99	3312	
Well 15	7/16/2025	7:30	22.98	3323	
Well 15	7/16/2025	8:00	23.02	3315	
Well 15	7/16/2025	8:30	22.88	3297	
Well 15	7/16/2025	9:00	22.41	3312	
Well 15	7/16/2025	9:30	22.83	3298	
Well 15	7/16/2025	10:00	22.89	3287	
Well 15	7/16/2025	10:30	22.88	3285	
Well 15	7/16/2025	11:00	22.89	3248	
Well 15	7/16/2025	11:30	22.75	3243	
Well 15	7/16/2025	12:00	22.69	3231	
Well 15	7/16/2025	12:30	22.69	3221	
Well 15	7/16/2025	13:00	22.70	3238	
Well 15	7/16/2025	13:30	22.79	3250	
Well 15	7/16/2025	14:00	22.74	3248	
Well 15	7/16/2025	14:30	22.72	3252	
Well 15	7/16/2025	15:00	22.75	3242	
Well 15	7/16/2025	15:30	22.73	3229	
Well 15	7/16/2025	16:00	22.69	3247	
Well 15	7/16/2025	16:30	22.68	3235	
Well 15	7/16/2025	17:00	22.64	3232	
Well 15	7/16/2025	17:30	22.72	3242	
Well 15	7/16/2025	18:00	22.72	3240	
Well 15	7/16/2025	18:30	22.72	3254	
Well 15	7/16/2025	19:00	22.69	3260	
Well 15	7/16/2025	20:00	22.75	3265	
Well 15	7/16/2025	21:00	22.88	3282	
Well 15	7/16/2025	22:00	22.86	3281	
Well 15	7/16/2025	23:00	22.92	3288	
Well 15	7/17/2025	0:00	22.88	3279	
Well 15	7/17/2025	1:00	22.88	3277	
Well 15	7/17/2025	2:00	22.87	3265	
Well 15	7/17/2025	3:00	22.78	3249	
Well 15	7/17/2025	4:00	22.76	3231	
Well 15	7/17/2025	5:00	22.87	3259	
Well 15	7/17/2025	6:00	22.87	3261	
Well 15	7/17/2025	7:00	22.79	3250	
Well 15	7/17/2025	7:30	22.77	3236	
Well 15	7/17/2025	8:00	22.68	3227	
Well 15	7/17/2025	8:30	22.65	3212	
Well 15	7/17/2025	9:00	22.57	3207	
Well 15	7/17/2025	9:30	22.55	3204	
Well 15	7/17/2025	10:02	22.55	3188	
Well 15	7/17/2025	10:04	11.80	0	Well 15 120-hr Test - Pump Off
Well 15	7/17/2025	10:04	10.45	0	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/17/2025	10:04	21.34	0	
Well 15	7/17/2025	10:05	13.25	0	
Well 15	7/17/2025	10:05	20.53	0	
Well 15	7/17/2025	10:06	17.05	0	
Well 15	7/17/2025	10:06	13.75	0	
Well 15	7/17/2025	10:07	18.27	0	
Well 15	7/17/2025	10:07	15.62	0	
Well 15	7/17/2025	10:08	17.85	0	
Well 15	7/17/2025	10:08	16.42	0	
Well 15	7/17/2025	10:08	17.01	0	
Well 15	7/17/2025	10:09	14.74	0	
Well 15	7/17/2025	10:09	16.75	0	
Well 15	7/17/2025	10:09	16.90	0	
Well 15	7/17/2025	10:09	16.41	0	
Well 15	7/17/2025	10:10	16.50	0	
Well 15	7/17/2025	10:10	16.50	0	
Well 15	7/17/2025	10:11	16.50	0	
Well 15	7/17/2025	10:12	16.50	0	
Well 15	7/17/2025	10:14	16.40	0	
Well 15	7/17/2025	10:15	16.40	0	
Well 15	7/17/2025	10:16	16.38	0	
Well 15	7/17/2025	10:18	16.37	0	
Well 15	7/17/2025	10:20	16.36	0	
Well 15	7/17/2025	10:25	16.34	0	
Well 15	7/17/2025	10:30	16.33	0	
Well 15	7/17/2025	10:43	16.33	0	
Well 15	7/17/2025	10:54	16.27	0	
Well 15	7/17/2025	11:11	16.25	0	
Well 15	7/17/2025	11:44	16.16	0	
Well 15	7/28/2025	8:22	14.26	0	
Well 15	7/28/2025	8:23	14.26	0	
Well 15	7/28/2025	8:24	14.26	0	
Well 15	7/28/2025	8:49	14.25	0	
Well 15	7/28/2025	9:13	14.25	0	
Well 15	7/28/2025	9:35	14.27	0	Well 14 Step Test - Step 1 (WLs monitored in Well 15)
Well 15	7/28/2025	9:56	14.29	0	
Well 15	7/28/2025	10:23	14.27	0	
Well 15	7/28/2025	10:36	14.27	0	
Well 15	7/28/2025	10:54	14.28	0	
Well 15	7/28/2025	11:19	14.32	0	Well 14 Step Test - Step 2 (WLs monitored in Well 15)
Well 15	7/28/2025	11:20	14.31	0	
Well 15	7/28/2025	11:25	14.33	0	
Well 15	7/28/2025	11:37	14.31	0	
Well 15	7/28/2025	11:52	14.32	0	
Well 15	7/28/2025	12:04	14.33	0	
Well 15	7/28/2025	13:39	14.30	0	Well 14 Step Test - Step 3 (WLs monitored in Well 15)
Well 15	7/28/2025	14:03	14.30	0	
Well 15	7/28/2025	15:22	14.26	0	
Well 15	7/28/2025	16:29	14.26	0	Well 14 Step Test - Step 4 (WLs monitored in Well 15)
Well 15	7/28/2025	17:09	14.18	0	
Well 15	7/30/2025	9:07	14.17	0	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	7/30/2025	9:08	14.16	0	
Well 15	7/30/2025	9:09	14.16	0	
Well 15	7/30/2025	9:50	14.13	0	Well 14 120-hr Test - Pump On (WLs monitored in Well 15)
Well 15	7/30/2025	9:50	14.12	0	
Well 15	7/30/2025	9:51	14.12	0	
Well 15	7/30/2025	10:23	14.18	0	
Well 15	7/30/2025	10:59	14.16	0	
Well 15	7/30/2025	12:06	14.19	0	
Well 15	7/30/2025	13:04	14.16	0	
Well 15	7/30/2025	14:05	14.25	0	
Well 15	7/30/2025	15:08	14.20	0	
Well 15	7/30/2025	16:04	14.22	0	
Well 15	7/30/2025	17:04	14.18	0	
Well 15	7/30/2025	17:58	14.12	0	
Well 15	7/30/2025	18:57	14.17	0	
Well 15	7/30/2025	19:58	14.10	0	
Well 15	7/30/2025	20:58	14.09	0	
Well 15	7/30/2025	21:58	14.12	0	
Well 15	7/30/2025	22:58	14.14	0	
Well 15	7/30/2025	23:57	14.12	0	
Well 15	7/31/2025	0:59	14.34	0	
Well 15	7/31/2025	1:55	14.27	0	
Well 15	7/31/2025	2:58	14.28	0	
Well 15	7/31/2025	3:58	14.31	0	
Well 15	7/31/2025	5:58	14.28	0	
Well 15	7/31/2025	7:05	14.26	0	
Well 15	7/31/2025	8:04	14.28	0	
Well 15	7/31/2025	9:05	14.18	0	
Well 15	7/31/2025	11:05	14.23	0	
Well 15	7/31/2025	12:59	14.17	0	
Well 15	7/31/2025	13:59	14.18	0	
Well 15	7/31/2025	14:59	14.13	0	
Well 15	7/31/2025	15:58	14.13	0	
Well 15	7/31/2025	16:57	14.12	0	
Well 15	7/31/2025	17:59	14.10	0	
Well 15	7/31/2025	18:58	14.08	0	
Well 15	7/31/2025	19:59	14.12	0	
Well 15	7/31/2025	20:55	14.12	0	
Well 15	7/31/2025	21:59	14.10	0	
Well 15	7/31/2025	22:59	14.12	0	
Well 15	7/31/2025	23:59	14.13	0	
Well 15	8/1/2025	0:55	14.20	0	
Well 15	8/1/2025	1:57	14.25	0	
Well 15	8/1/2025	2:54	14.25	0	
Well 15	8/1/2025	3:57	14.25	0	
Well 15	8/1/2025	4:58	14.27	0	
Well 15	8/1/2025	5:54	14.30	0	
Well 15	8/1/2025	6:52	14.28	0	
Well 15	8/1/2025	8:57	14.27	0	
Well 15	8/1/2025	11:04	14.16	0	
Well 15	8/1/2025	13:04	14.16	0	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	8/1/2025	14:04	14.10	0	
Well 15	8/1/2025	14:59	14.10	0	
Well 15	8/1/2025	15:59	14.09	0	
Well 15	8/1/2025	16:59	14.08	0	
Well 15	8/1/2025	17:59	14.09	0	
Well 15	8/1/2025	18:59	14.10	0	
Well 15	8/1/2025	19:58	14.10	0	
Well 15	8/1/2025	20:59	14.12	0	
Well 15	8/1/2025	21:57	14.18	0	
Well 15	8/1/2025	22:58	14.15	0	
Well 15	8/1/2025	23:59	14.15	0	
Well 15	8/2/2025	1:05	14.17	0	
Well 15	8/2/2025	2:58	14.22	0	
Well 15	8/2/2025	3:08	14.23	0	
Well 15	8/2/2025	4:09	14.27	0	
Well 15	8/2/2025	6:06	14.28	0	
Well 15	8/2/2025	7:06	14.26	0	
Well 15	8/2/2025	8:06	14.25	0	
Well 15	8/2/2025	9:07	14.22	0	
Well 15	8/2/2025	9:57	14.18	0	
Well 15	8/2/2025	10:55	14.10	0	
Well 15	8/2/2025	12:07	14.11	0	
Well 15	8/2/2025	12:54	14.10	0	
Well 15	8/2/2025	13:58	14.08	0	
Well 15	8/2/2025	15:03	14.09	0	
Well 15	8/2/2025	15:59	14.07	0	
Well 15	8/2/2025	16:59	14.06	0	
Well 15	8/2/2025	17:59	14.06	0	
Well 15	8/2/2025	19:03	14.10	0	
Well 15	8/2/2025	20:03	14.10	0	
Well 15	8/2/2025	21:04	14.13	0	
Well 15	8/2/2025	21:59	14.13	0	
Well 15	8/2/2025	23:03	14.15	0	
Well 15	8/2/2025	23:59	14.17	0	
Well 15	8/3/2025	0:58	14.19	0	
Well 15	8/3/2025	1:56	14.21	0	
Well 15	8/3/2025	3:07	14.24	0	
Well 15	8/3/2025	4:04	14.27	0	
Well 15	8/3/2025	5:06	14.29	0	
Well 15	8/3/2025	6:05	14.29	0	
Well 15	8/3/2025	7:04	14.30	0	
Well 15	8/3/2025	8:07	14.31	0	
Well 15	8/3/2025	9:06	14.28	0	
Well 15	8/3/2025	10:05	14.23	0	
Well 15	8/3/2025	11:03	14.16	0	
Well 15	8/3/2025	11:54	14.13	0	
Well 15	8/3/2025	12:55	14.15	0	
Well 15	8/3/2025	14:02	14.10	0	
Well 15	8/3/2025	14:59	14.05	0	
Well 15	8/3/2025	15:59	14.03	0	
Well 15	8/3/2025	17:03	14.03	0	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	8/3/2025	18:03	14.04	0	
Well 15	8/3/2025	19:02	14.15	0	
Well 15	8/3/2025	20:06	14.09	0	
Well 15	8/3/2025	21:01	14.06	0	
Well 15	8/3/2025	22:04	14.10	0	
Well 15	8/3/2025	23:04	14.13	0	
Well 15	8/4/2025	0:21	14.15	0	
Well 15	8/4/2025	1:03	14.16	0	
Well 15	8/4/2025	2:05	14.19	0	
Well 15	8/4/2025	3:22	14.25	0	
Well 15	8/4/2025	4:05	14.24	0	
Well 15	8/4/2025	5:03	14.29	0	
Well 15	8/4/2025	6:05	14.34	0	
Well 15	8/4/2025	7:02	14.35	0	
Well 15	8/4/2025	8:04	14.33	0	
Well 15	8/4/2025	8:30	14.31	0	
Well 15	8/4/2025	9:03	14.29	0	
Well 15	8/4/2025	10:12	14.28	0	Well 14 120-hr Test - Pump Off (WLs monitored in Well 15)
Well 15	8/13/2025	9:35:00	14.04	0	Well 13 Cycle Test - Cycle 1 On (WLs monitored in Well 15)
Well 15	8/13/2025	10:13:00	14.20	0	
Well 15	8/13/2025	11:04:00	14.23	0	
Well 15	8/13/2025	11:28:00	14.24	0	
Well 15	8/13/2025	12:29:00	14.22	0	
Well 15	8/13/2025	13:28:00	14.23	0	
Well 15	8/13/2025	15:25:00	14.00	0	Well 13 Cycle Test - Cycle 1 Off at 15:00 (WLs monitored in Well 15)
Well 15	8/13/2025	16:09:00	13.95	0	
Well 15	8/13/2025	16:33:00	13.95	0	
Well 15	8/13/2025	17:30:00	13.94	0	
Well 15	8/13/2025	18:19:00	13.90	0	
Well 15	8/13/2025	19:31:00	14.13	0	Well 13 Cycle Test - Cycle 2 On at 19:00 (WLs monitored in Well 15)
Well 15	8/13/2025	20:07:00	14.14	0	
Well 15	8/13/2025	20:30:00	14.20	0	
Well 15	8/13/2025	21:01:00	14.15	0	
Well 15	8/13/2025	22:02:00	14.19	0	
Well 15	8/13/2025	23:01:00	14.20	0	
Well 15	8/13/2025	23:56:00	14.23	0	
Well 15	8/14/2025	1:58:00	14.37	0	
Well 15	8/14/2025	3:05:00	14.27	0	
Well 15	8/14/2025	3:57:00	14.26	0	
Well 15	8/14/2025	6:15:00	14.23	0	
Well 15	8/14/2025	7:06:00	14.20	0	Well 13 Cycle Test - Cycle 2 Off at 7:08 (WLs monitored in Well 15)
Well 15	8/14/2025	7:27:00	14.04	0	
Well 15	8/14/2025	8:04:00	13.93	0	
Well 15	8/14/2025	9:07:00	13.92	0	
Well 15	8/14/2025	10:03:00	13.90	0	
Well 15	8/14/2025	11:18:00	14.13	0	Well 13 Cycle Test - Cycle 3 On at 11:00 (WLs monitored in Well 15)
Well 15	8/14/2025	12:03:00	14.15	0	
Well 15	8/14/2025	13:03:00	14.15	0	
Well 15	8/14/2025	14:00:00	14.14	0	
Well 15	8/14/2025	15:00:00	14.14	0	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	8/14/2025	16:11:00	13.95	0	Well 13 Cycle Test - Cycle 3 Off 16:02 (WLs monitored in Well 15)
Well 15	8/16/2025	9:42	14.04	0	
Well 15	8/16/2025	10:32	14.19	0	Well 13 120-hr Test - Pump On at 10:00 (WLs monitored in Well 15)
Well 15	8/16/2025	10:53	14.18	0	
Well 15	8/16/2025	11:23	14.18	0	
Well 15	8/16/2025	12:10	14.15	0	
Well 15	8/16/2025	13:02	14.14	0	
Well 15	8/16/2025	13:34	14.13	0	
Well 15	8/16/2025	14:04	14.13	0	
Well 15	8/16/2025	14:34	14.13	0	
Well 15	8/16/2025	15:04	14.12	0	
Well 15	8/16/2025	15:33	14.12	0	
Well 15	8/16/2025	16:04	14.10	0	
Well 15	8/16/2025	16:32	14.14	0	
Well 15	8/16/2025	17:02	14.17	0	
Well 15	8/16/2025	18:03	14.13	0	
Well 15	8/16/2025	18:58	14.13	0	
Well 15	8/16/2025	19:58	14.14	0	
Well 15	8/16/2025	20:58	14.14	0	
Well 15	8/16/2025	22:10	14.13	0	
Well 15	8/16/2025	23:04	14.15	0	
Well 15	8/17/2025	0:16	14.16	0	
Well 15	8/17/2025	1:03	14.19	0	
Well 15	8/17/2025	2:04	14.21	0	
Well 15	8/17/2025	2:57	14.24	0	
Well 15	8/17/2025	3:58	14.24	0	
Well 15	8/17/2025	5:06	14.28	0	
Well 15	8/17/2025	6:07	14.25	0	
Well 15	8/17/2025	7:03	14.24	0	
Well 15	8/17/2025	8:02	14.20	0	
Well 15	8/17/2025	9:03	14.19	0	
Well 15	8/17/2025	10:05	14.13	0	
Well 15	8/17/2025	11:05	14.09	0	
Well 15	8/17/2025	12:05	14.05	0	
Well 15	8/17/2025	13:06	13.96	0	
Well 15	8/17/2025	14:04	14.00	0	
Well 15	8/17/2025	15:02	14.00	0	
Well 15	8/17/2025	16:03	14.00	0	
Well 15	8/17/2025	17:04	14.00	0	
Well 15	8/17/2025	18:05	14.04	0	
Well 15	8/17/2025	19:06	14.07	0	
Well 15	8/17/2025	20:04	14.10	0	
Well 15	8/17/2025	20:58	14.10	0	
Well 15	8/17/2025	22:13	14.13	0	
Well 15	8/17/2025	23:06	14.19	0	
Well 15	8/18/2025	0:04	14.09	0	
Well 15	8/18/2025	1:03	14.14	0	
Well 15	8/18/2025	2:03	14.12	0	
Well 15	8/18/2025	3:05	14.16	0	
Well 15	8/18/2025	4:04	14.17	0	
Well 15	8/18/2025	5:04	14.25	0	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	8/18/2025	6:02	14.24	0	
Well 15	8/18/2025	7:04	14.25	0	
Well 15	8/18/2025	8:02	14.25	0	
Well 15	8/18/2025	9:03	14.24	0	
Well 15	8/18/2025	10:04	14.18	0	
Well 15	8/18/2025	10:54	14.13	0	
Well 15	8/18/2025	12:06	14.07	0	
Well 15	8/18/2025	12:57	14.03	0	
Well 15	8/18/2025	14:04	14.00	0	
Well 15	8/18/2025	15:04	13.98	0	
Well 15	8/18/2025	16:03	13.93	0	
Well 15	8/18/2025	16:57	13.98	0	
Well 15	8/18/2025	18:03	13.99	0	
Well 15	8/18/2025	19:02	14.06	0	
Well 15	8/18/2025	19:58	14.07	0	
Well 15	8/18/2025	20:01	14.09	0	
Well 15	8/18/2025	22:02	14.14	0	
Well 15	8/18/2025	23:08	14.10	0	
Well 15	8/18/2025	23:50	14.11	0	
Well 15	8/19/2025	0:57	14.10	0	
Well 15	8/19/2025	2:06	14.12	0	
Well 15	8/19/2025	3:04	14.15	0	
Well 15	8/19/2025	4:07	14.05	0	
Well 15	8/19/2025	5:05	14.22	0	
Well 15	8/19/2025	6:07	14.25	0	
Well 15	8/19/2025	7:04	14.25	0	
Well 15	8/19/2025	7:57	14.25	0	
Well 15	8/19/2025	8:25	14.28	0	
Well 15	8/19/2025	9:03	14.28	0	
Well 15	8/19/2025	9:58	14.21	0	
Well 15	8/19/2025	10:57	14.17	0	
Well 15	8/19/2025	11:51	14.10	0	
Well 15	8/19/2025	14:03	13.98	0	
Well 15	8/19/2025	14:58	13.90	0	
Well 15	8/19/2025	15:56	13.95	0	
Well 15	8/19/2025	16:57	13.99	0	
Well 15	8/19/2025	18:02	14.00	0	
Well 15	8/19/2025	18:58	14.02	0	
Well 15	8/19/2025	19:54	14.04	0	
Well 15	8/19/2025	20:55	14.06	0	
Well 15	8/19/2025	21:57	14.08	0	
Well 15	8/19/2025	23:07	14.05	0	
Well 15	8/20/2025	0:07	14.05	0	
Well 15	8/20/2025	1:07	14.07	0	
Well 15	8/20/2025	2:04	14.06	0	
Well 15	8/20/2025	3:08	14.05	0	
Well 15	8/20/2025	4:05	14.04	0	
Well 15	8/20/2025	5:02	14.14	0	
Well 15	8/20/2025	6:06	14.20	0	
Well 15	8/20/2025	7:03	14.21	0	
Well 15	8/20/2025	8:04	14.25	0	

Kalaeloa Aquifer Testing Field Data - Well 15 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM	Notes
Well 15	8/20/2025	9:04	14.25	0	
Well 15	8/20/2025	10:07	14.19	0	
Well 15	8/20/2025	11:06	14.15	0	
Well 15	8/20/2025	12:03	14.10	0	
Well 15	8/20/2025	13:04	14.05	0	
Well 15	8/20/2025	14:05	13.95	0	
Well 15	8/20/2025	15:02	13.95	0	
Well 15	8/20/2025	15:56	13.93	0	
Well 15	8/20/2025	17:03	13.91	0	
Well 15	8/20/2025	18:12	13.97	0	
Well 15	8/20/2025	18:55	13.98	0	
Well 15	8/20/2025	20:03	14.03	0	
Well 15	8/20/2025	21:02	14.08	0	
Well 15	8/20/2025	22:04	14.08	0	
Well 15	8/20/2025	23:07	14.09	0	
Well 15	8/21/2025	0:07	14.07	0	
Well 15	8/21/2025	1:06	14.04	0	
Well 15	8/21/2025	2:04	14.05	0	
Well 15	8/21/2025	3:06	14.05	0	
Well 15	8/21/2025	4:05	14.05	0	
Well 15	8/21/2025	5:00	14.10	0	
Well 15	8/21/2025	6:03	14.13	0	
Well 15	8/21/2025	7:05	14.19	0	
Well 15	8/21/2025	8:00	14.20	0	
Well 15	8/21/2025	8:10	14.06	0	
Well 15	8/21/2025	9:05	14.24	0	
Well 15	8/21/2025	10:01	14.20	0	Well 13 120-hr Test - Pump Off at 10:10 (WLs monitored in Well 15)
Well 15	8/21/2025	10:22	14.03	0	

Kalaeloa Aquifer Testing Field Data - MW 1 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
MW 1	2/20/2025	13:00	10.26	n/a	
MW 1	4/21/2025	10:31	10.33	n/a	
MW 1	4/26/2025	13:30	10.00	n/a	
MW 1	5/2/2025	12:36	10.41	n/a	
MW 1	5/12/2025	11:07	10.48	n/a	
MW 1	5/15/2025	11:20	10.54	n/a	
MW 1	5/30/2025	14:23	10.42	n/a	
MW 1	6/6/2025	11:15	10.24	n/a	
MW 1	6/18/2025	8:56	10.25	n/a	
MW 1	6/18/2025	9:07	10.24	n/a	
MW 1	7/3/2025	8:10	10.31	n/a	Transducer slightly pulled out of well during measurement
MW 1	7/3/2025	8:11	10.30	n/a	Transducer slightly pulled out of well during measurement
MW 1	7/3/2025	8:12	10.30	n/a	Transducer slightly pulled out of well during measurement
MW 1	7/3/2025	9:57	10.22	n/a	
MW 1	7/3/2025	9:58	10.23	n/a	
MW 1	7/3/2025	9:59	10.22	n/a	
MW 1	7/3/2025	11:35	9.98	n/a	
MW 1	7/3/2025	11:36	9.97	n/a	
MW 1	7/3/2025	11:37	9.96	n/a	
MW 1	7/3/2025	11:37	9.96	n/a	
MW 1	7/3/2025	12:19	9.87	n/a	
MW 1	7/3/2025	12:34	9.89	n/a	
MW 1	7/7/2025	8:44	10.54	n/a	Well 15 Step Test- Step 1 (WLs monitored in MW 1)
MW 1	7/7/2025	8:51	10.56	n/a	
MW 1	7/7/2025	8:57	10.60	n/a	
MW 1	7/7/2025	9:13	10.49	n/a	
MW 1	7/7/2025	9:14	10.49	n/a	
MW 1	7/7/2025	9:23	10.53	n/a	
MW 1	7/7/2025	9:29	10.49	n/a	
MW 1	7/7/2025	9:39	10.49	n/a	
MW 1	7/7/2025	10:02	10.43	n/a	Well 15 Step Test- Step 2 (WLs monitored in MW 1)
MW 1	7/7/2025	10:10	10.43	n/a	
MW 1	7/7/2025	10:18	10.43	n/a	
MW 1	7/7/2025	10:45	10.33	n/a	
MW 1	7/7/2025	11:02	10.32	n/a	
MW 1	7/7/2025	11:53	10.11	n/a	Well 15 Step Test- Step 3 (WLs monitored in MW 1)
MW 1	7/7/2025	12:09	10.08	n/a	
MW 1	7/7/2025	12:28	10.07	n/a	Well 15 Step Test- Step 4 (WLs monitored in MW 1)
MW 1	7/7/2025	12:34	10.07	n/a	
MW 1	7/7/2025	12:42	10.03	n/a	
MW 1	7/7/2025	12:45	10.04	n/a	
MW 1	7/7/2025	12:55	10.01	n/a	
MW 1	7/9/2025	9:09	10.71	n/a	
MW 1	7/9/2025	9:10	10.62	n/a	
MW 1	7/9/2025	9:11	10.60	n/a	
MW 1	7/9/2025	9:12	10.61	n/a	
MW 1	7/9/2025	11:11	10.35	n/a	Well 15 Cycle Test - Cycle 1 On (WLs monitored in MW 1)
MW 1	7/9/2025	11:12	10.39	n/a	
MW 1	7/9/2025	11:13	10.40	n/a	
MW 1	7/9/2025	11:14	10.40	n/a	
MW 1	7/9/2025	12:03	10.26	n/a	
MW 1	7/9/2025	12:04	10.26	n/a	

Kalaeloa Aquifer Testing Field Data - MW 1 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
MW 1	7/9/2025	12:05	10.25	n/a	
MW 1	7/9/2025	14:03	9.92	n/a	
MW 1	7/9/2025	14:04	9.91	n/a	
MW 1	7/9/2025	14:05	9.92	n/a	
MW 1	7/9/2025	15:10	9.80	n/a	
MW 1	7/9/2025	15:11	9.79	n/a	
MW 1	7/9/2025	15:12	9.80	n/a	Well 15 Cycle Test - Cycle 1 Off (WLs monitored in MW 1)
MW 1	7/9/2025	16:46	9.58	n/a	
MW 1	7/9/2025	19:54	9.49	n/a	Well 15 Cycle Test - Cycle 2 On (WLs monitored in MW 1)
MW 1	7/10/2025	7:57	10.13	n/a	Well 15 Cycle Test - Cycle 2 Off (WLs monitored in MW 1)
MW 1	7/10/2025	8:35	10.33	n/a	
MW 1	7/10/2025	10:26	10.57	n/a	
MW 1	7/10/2025	11:35	10.44	n/a	Well 15 Cycle Test - Cycle 2 On (WLs monitored in MW 1)
MW 1	7/10/2025	12:04	10.42	n/a	
MW 1	7/10/2025	12:49	10.26	n/a	
MW 1	7/10/2025	13:26	10.20	n/a	
MW 1	7/10/2025	14:04	10.11	n/a	
MW 1	7/10/2025	14:34	9.97	n/a	Well 15 Cycle Test - Cycle 2 Off (WLs monitored in MW 1)
MW 1	7/12/2025	8:55	10.29	n/a	Well 13 120-hr Test (WLs monitored in MW 1)
MW 1	7/12/2025	8:56	10.30	n/a	
MW 1	7/12/2025	8:57	10.30	n/a	
MW 1	7/12/2025	10:30	10.49	n/a	
MW 1	7/14/2025	10:23	10.29	n/a	
MW 1	7/14/2025	10:24	10.29	n/a	
MW 1	7/14/2025	10:26	10.29	n/a	
MW 1	7/15/2025	8:11	10.07	n/a	
MW 1	7/15/2025	8:11	10.07	n/a	
MW 1	7/15/2025	8:12	10.07	n/a	
MW 1	7/16/2025	9:10	9.68	n/a	
MW 1	7/16/2025	9:23	9.94	n/a	
MW 1	7/16/2025	9:25	9.94	n/a	
MW 1	7/16/2025	13:22	9.97	n/a	
MW 1	7/16/2025	13:23	9.97	n/a	
MW 1	7/17/2025	9:49	9.94	n/a	
MW 1	7/17/2025	9:50	9.93	n/a	
MW 1	7/17/2025	11:24	9.84	n/a	
MW 1	7/22/2025	10:06	10.11	n/a	
MW 1	7/22/2025	11:59	9.20	n/a	
MW 1	7/28/2025	8:47	9.68	n/a	
MW 1	7/28/2025	8:48	9.65	n/a	
MW 1	7/28/2025	8:49	9.65	n/a	
MW 1	7/28/2025	9:45	9.97	n/a	Well 14 Step Test- Step 1 (WLs monitored in MW 1)
MW 1	7/28/2025	9:53	9.99	n/a	
MW 1	7/28/2025	13:44	10.02	n/a	Well 14 Step Test- Step 2 (WLs monitored in MW 1)
MW 1	7/28/2025	15:14	10.00	n/a	Well 14 Step Test- Step 3 (WLs monitored in MW 1)
MW 1	7/28/2025	16:24	9.78	n/a	Well 14 Step Test- Step 4 (WLs monitored in MW 1)
MW 1	7/28/2025	16:52	9.73	n/a	
MW 1	7/30/2025	10:07	9.49	n/a	Well 14 120-hr Test (WLs monitored in MW 1)
MW 1	7/30/2025	11:06	9.60	n/a	
MW 1	7/31/2025	9:45	9.60	n/a	
MW 1	7/31/2025	9:46	9.61	n/a	
MW 1	8/4/2025	8:43	10.01	n/a	

Kalaeloa Aquifer Testing Field Data - MW 1 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
MW 1	8/4/2025	10:18	9.97	n/a	
MW 1	8/4/2025	10:25	9.97	n/a	
MW 1	8/13/2025	9:20	9.53	n/a	Well 13 Cycle Test - Cycle 1 On (WLs monitored in MW 1)
MW 1	8/13/2025	10:16	9.59	n/a	
MW 1	8/13/2025	11:09	9.53	n/a	
MW 1	8/13/2025	14:27	9.67	n/a	
MW 1	8/13/2025	15:31	9.67	n/a	Well 13 Cycle Test - Cycle 1 Off at 15:00 (WLs monitored in MW 1)
MW 1	8/13/2025	16:13	9.65	n/a	
MW 1	8/13/2025	18:26	9.55	n/a	
MW 1	8/13/2025	20:11	9.60	n/a	Well 13 Cycle Test - Cycle 2 On at 19:00 (WLs monitored in MW 1)
MW 1	8/14/2025	7:00	9.35	n/a	Well 13 Cycle Test - Cycle 2 Off at 7:08 (WLs monitored in MW 1)
MW 1	8/14/2025	7:36	9.33	n/a	
MW 1	8/14/2025	8:09	9.29	n/a	
MW 1	8/14/2025	10:52	9.25	n/a	
MW 1	8/14/2025	11:22	9.27	n/a	Well 13 Cycle Test - Cycle 3 On at 11:00 (WLs monitored in MW 1)
MW 1	8/14/2025	11:46	9.45	n/a	
MW 1	8/14/2025	15:38	9.73	n/a	
MW 1	8/14/2025	16:16	9.66	n/a	Well 13 Cycle Test - Cycle 3 Off at 16:02 (WLs monitored in MW 1)
MW 1	8/16/2025	9:45	9.48	n/a	
MW 1	8/16/2025	10:38	9.32	n/a	Well 14 120-hr Test - Pump on at 10:00 (WLs monitored in MW 1)
MW 1	8/16/2025	11:28	9.27	n/a	
MW 1	8/16/2025	12:14	9.20	n/a	
MW 1	8/16/2025	13:24	8.78	n/a	
MW 1	8/18/2025	9:23	9.89	n/a	
MW 1	8/18/2025	10:55	9.59	n/a	
MW 1	8/19/2025	8:31	10.06	n/a	
MW 1	8/19/2025	8:32	10.06	n/a	
MW 1	8/20/2025	8:10	10.06	n/a	
MW 1	8/21/2025	8:00	9.79	n/a	
MW 1	8/21/2025	10:08	10.04	n/a	
MW 1	8/21/2025	10:37	10.01	n/a	Well 14 120-hr Test - Pump off at 10:10 (WLs monitored in MW 1)

Kalaeloa Aquifer Testing Field Data - MW 2 Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
MW 2	4/21/2025	10:42	9.53	n/a	
MW 2	4/26/2025	13:00	10.04	n/a	
MW 2	5/2/2025	11:02	10.21	n/a	
MW 2	5/2/2025	11:10	10.69	n/a	
MW 2	5/12/2025	12:29	9.31	n/a	
MW 2	5/15/2025	11:38	10.38	n/a	
MW 2	5/30/2025	15:25	10.15	n/a	
MW 2	6/6/2025	9:14	10.31	n/a	
MW 2	6/18/2025	11:12	10.03	n/a	Transducer slightly pulled out of well during measurement
MW 2	7/3/2025	7:56	10.22	n/a	Transducer slightly pulled out of well during measurement
MW 2	7/3/2025	7:57	10.22	n/a	Transducer slightly pulled out of well during measurement
MW 2	7/3/2025	7:58	10.22	n/a	Transducer slightly pulled out of well during measurement
MW 2	7/3/2025	11:38	9.92	n/a	Transducer slightly pulled out of well during measurement
MW 2	7/3/2025	12:02	9.91	n/a	Transducer slightly pulled out of well during measurement
MW 2	7/14/2025	11:15	10.24	n/a	
MW 2	7/14/2025	11:17	10.24	n/a	
MW 2	7/14/2025	11:20	10.25	n/a	
MW 2	7/15/2025	9:27	9.98	n/a	
MW 2	7/15/2025	9:28	9.98	n/a	
MW 2	7/15/2025	9:29	9.98	n/a	
MW 2	7/22/2025	12:10	9.53	n/a	
MW 2	8/13/2025	10:28	9.46	n/a	
MW 2	8/13/2025	10:29	9.46	n/a	
MW 2	8/13/2025	10:37	9.49	n/a	
MW 2	8/18/2025	9:44	9.77	n/a	
MW 2	8/19/2025	8:52	9.95	n/a	
MW 2	8/20/2025	8:19	9.93	n/a	
MW 2	8/21/2025	8:16	9.60	n/a	

Kalaeloa Aquifer Testing Field Data - Onsite Tide Gauge Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc pvc)	Pump Rate (GPM)	Notes
Tide Gauge	6/18/2025	10:52	13.42	n/a	
Tide Gauge	6/18/2025	10:54	13.66	n/a	
Tide Gauge	6/18/2025	10:56	13.72	n/a	
Tide Gauge	6/19/2025	11:22	13.58	n/a	
Tide Gauge	6/19/2025	11:22	13.35	n/a	
Tide Gauge	6/19/2025	11:23	13.30	n/a	
Tide Gauge	6/23/2025	11:48	13.36	n/a	
Tide Gauge	6/23/2025	11:49	12.89	n/a	
Tide Gauge	6/23/2025	11:49	12.94	n/a	
Tide Gauge	6/23/2025	11:50	13.57	n/a	
Tide Gauge	6/23/2025	11:51	13.70	n/a	
Tide Gauge	6/25/2025	10:57	14.14	n/a	
Tide Gauge	6/25/2025	10:58	14.11	n/a	
Tide Gauge	6/25/2025	10:59	14.18	n/a	
Tide Gauge	6/30/2025	13:45	14.30	n/a	
Tide Gauge	6/30/2025	13:45	14.43	n/a	
Tide Gauge	6/30/2025	13:48	14.53	n/a	
Tide Gauge	6/30/2025	13:49	14.27	n/a	
Tide Gauge	6/30/2025	13:50	14.23	n/a	
Tide Gauge	7/1/2025	10:53	14.03	n/a	
Tide Gauge	7/1/2025	10:54	13.96	n/a	
Tide Gauge	7/1/2025	10:54	14.13	n/a	
Tide Gauge	7/1/2025	10:55	13.67	n/a	
Tide Gauge	7/1/2025	11:16	14.16	n/a	
Tide Gauge	7/1/2025	11:17	13.99	n/a	
Tide Gauge	7/1/2025	11:18	14.10	n/a	
Tide Gauge	7/1/2025	11:19	13.77	n/a	
Tide Gauge	7/1/2025	11:20	14.10	n/a	
Tide Gauge	7/3/2025	8:16	13.99	n/a	
Tide Gauge	7/3/2025	8:17	14.39	n/a	
Tide Gauge	7/3/2025	8:19	14.24	n/a	
Tide Gauge	7/3/2025	8:20	14.09	n/a	
Tide Gauge	7/3/2025	8:24	14.23	n/a	
Tide Gauge	7/3/2025	11:44	13.43	n/a	
Tide Gauge	7/3/2025	11:45	13.91	n/a	
Tide Gauge	7/3/2025	11:46	13.76	n/a	
Tide Gauge	7/3/2025	11:51	13.27	n/a	Pull and redeploy transducer from 11:57-12:05
Tide Gauge	7/7/2025	9:05	14.53	n/a	
Tide Gauge	7/7/2025	9:06	14.60	n/a	
Tide Gauge	7/7/2025	9:06	14.34	n/a	
Tide Gauge	7/7/2025	9:46	14.35	n/a	
Tide Gauge	7/7/2025	9:46	14.74	n/a	
Tide Gauge	7/7/2025	9:47	14.43	n/a	
Tide Gauge	7/7/2025	9:47	14.00	n/a	
Tide Gauge	7/7/2025	9:48	14.21	n/a	
Tide Gauge	7/7/2025	10:22	13.67	n/a	
Tide Gauge	7/7/2025	10:22	14.41	n/a	
Tide Gauge	7/7/2025	10:23	14.49	n/a	
Tide Gauge	7/7/2025	11:00	14.04	n/a	
Tide Gauge	7/7/2025	11:00	14.09	n/a	
Tide Gauge	7/7/2025	12:05	13.79	n/a	
Tide Gauge	7/7/2025	12:06	13.29	n/a	

Kalaeloa Aquifer Testing Field Data - Onsite Tide Gauge Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc pvc)	Pump Rate (GPM)	Notes
Tide Gauge	7/7/2025	12:07	13.28	n/a	
Tide Gauge	7/7/2025	12:57	13.04	n/a	
Tide Gauge	7/7/2025	12:58	12.81	n/a	
Tide Gauge	7/7/2025	12:58	12.96	n/a	
Tide Gauge	7/7/2025	12:59	13.38	n/a	
Tide Gauge	7/9/2025	8:59	14.76	n/a	
Tide Gauge	7/9/2025	9:00	14.76	n/a	
Tide Gauge	7/9/2025	9:01	14.74	n/a	
Tide Gauge	7/9/2025	11:05	14.21	n/a	
Tide Gauge	7/9/2025	11:06	14.15	n/a	
Tide Gauge	7/9/2025	11:07	14.27	n/a	
Tide Gauge	7/9/2025	11:57	14.04	n/a	
Tide Gauge	7/9/2025	11:59	13.83	n/a	
Tide Gauge	7/9/2025	12:01	13.83	n/a	
Tide Gauge	7/9/2025	13:58	9.38	n/a	
Tide Gauge	7/9/2025	13:59	11.25	n/a	
Tide Gauge	7/9/2025	14:00	11.21	n/a	
Tide Gauge	7/9/2025	15:03	11.60	n/a	
Tide Gauge	7/9/2025	15:06	12.77	n/a	
Tide Gauge	7/9/2025	15:08	9.15	n/a	
Tide Gauge	7/9/2025	16:54	11.08	n/a	
Tide Gauge	7/9/2025	16:56	12.60	n/a	
Tide Gauge	7/9/2025	16:57	12.04	n/a	
Tide Gauge	7/9/2025	16:58	12.62	n/a	
Tide Gauge	7/9/2025	20:11	14.83	n/a	
Tide Gauge	7/9/2025	20:12	14.14	n/a	
Tide Gauge	7/9/2025	20:13	14.19	n/a	
Tide Gauge	7/9/2025	20:14	13.65	n/a	
Tide Gauge	7/10/2025	7:52	15.40	n/a	
Tide Gauge	7/10/2025	7:53	14.53	n/a	
Tide Gauge	7/10/2025	7:54	13.58	n/a	
Tide Gauge	7/10/2025	10:23	14.55	n/a	
Tide Gauge	7/10/2025	10:23	14.85	n/a	
Tide Gauge	7/10/2025	10:24	14.89	n/a	
Tide Gauge	7/10/2025	11:31	14.61	n/a	
Tide Gauge	7/10/2025	11:32	14.79	n/a	
Tide Gauge	7/10/2025	11:32	14.51	n/a	
Tide Gauge	7/10/2025	12:41	13.17	n/a	
Tide Gauge	7/10/2025	12:42	13.91	n/a	
Tide Gauge	7/10/2025	12:42	13.16	n/a	
Tide Gauge	7/10/2025	13:23	13.70	n/a	
Tide Gauge	7/10/2025	13:24	13.48	n/a	
Tide Gauge	7/10/2025	13:43	12.94	n/a	
Tide Gauge	7/10/2025	13:43	13.84	n/a	
Tide Gauge	7/10/2025	13:44	13.28	n/a	
Tide Gauge	7/12/2025	8:47	14.68	n/a	
Tide Gauge	7/12/2025	8:48	14.60	n/a	
Tide Gauge	7/12/2025	8:49	14.47	n/a	
Tide Gauge	7/12/2025	10:32	11.48	n/a	
Tide Gauge	7/12/2025	10:33	11.38	n/a	
Tide Gauge	7/12/2025	10:34	11.57	n/a	
Tide Gauge	7/14/2025	10:16	13.67	n/a	

Kalaeloa Aquifer Testing Field Data - Onsite Tide Gauge Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc pvc)	Pump Rate (GPM)	Notes
Tide Gauge	7/14/2025	10:17	13.82	n/a	
Tide Gauge	7/14/2025	10:18	13.81	n/a	
Tide Gauge	7/15/2025	8:51	13.68	n/a	
Tide Gauge	7/15/2025	8:51	13.08	n/a	
Tide Gauge	7/15/2025	8:52	13.04	n/a	
Tide Gauge	7/16/2025	9:02	12.62	n/a	
Tide Gauge	7/16/2025	9:03	12.34	n/a	
Tide Gauge	7/16/2025	9:04	12.31	n/a	
Tide Gauge	7/17/2025	9:53	11.95	n/a	
Tide Gauge	7/17/2025	9:54	11.91	n/a	
Tide Gauge	7/17/2025	9:55	11.90	n/a	
Tide Gauge	7/17/2025	10:46	14.53	n/a	
Tide Gauge	7/17/2025	10:53	14.54	n/a	
Tide Gauge	7/17/2025	10:58	14.53	n/a	
Tide Gauge	7/28/2025	8:41	13.82	n/a	
Tide Gauge	7/28/2025	8:42	13.87	n/a	
Tide Gauge	7/28/2025	8:43	13.16	n/a	
Tide Gauge	7/28/2025	9:48	13.74	n/a	
Tide Gauge	7/28/2025	9:49	14.21	n/a	
Tide Gauge	7/28/2025	9:50	13.91	n/a	
Tide Gauge	7/28/2025	9:50	14.31	n/a	
Tide Gauge	7/28/2025	9:51	14.02	n/a	
Tide Gauge	7/28/2025	13:47	14.05	n/a	
Tide Gauge	7/28/2025	13:49	13.94	n/a	
Tide Gauge	7/28/2025	13:50	14.02	n/a	
Tide Gauge	7/28/2025	15:07	13.12	n/a	
Tide Gauge	7/28/2025	15:07	13.26	n/a	
Tide Gauge	7/28/2025	15:08	13.76	n/a	
Tide Gauge	7/30/2025	9:59	11.88	n/a	Post-tsunami
Tide Gauge	7/30/2025	10:02	12.09	n/a	
Tide Gauge	7/31/2025	9:59	11.30	n/a	
Tide Gauge	7/31/2025	10:00	11.34	n/a	
Tide Gauge	7/31/2025	10:02	11.49	n/a	
Tide Gauge	8/4/2025	8:45	12.14	n/a	
Tide Gauge	8/4/2025	8:46	12.13	n/a	
Tide Gauge	8/4/2025	8:47	12.10	n/a	
Tide Gauge	8/4/2025	10:32	13.86	n/a	
Tide Gauge	8/4/2025	10:33	12.50	n/a	
Tide Gauge	8/4/2025	10:34	12.53	n/a	
Tide Gauge	8/6/2025	11:43	12.91	n/a	
Tide Gauge	8/6/2025	11:43	12.91	n/a	
Tide Gauge	8/6/2025	11:44	13.54	n/a	
Tide Gauge	8/6/2025	11:45	13.70	n/a	
Tide Gauge	8/6/2025	12:03	13.24	n/a	
Tide Gauge	8/6/2025	12:04	13.46	n/a	
Tide Gauge	8/6/2025	12:05	13.72	n/a	
Tide Gauge	8/13/2025	9:26	13.02	n/a	
Tide Gauge	8/13/2025	9:28	12.37	n/a	
Tide Gauge	8/13/2025	9:31	13.26	n/a	
Tide Gauge	8/13/2025	10:19	12.93	n/a	
Tide Gauge	8/13/2025	10:19	12.88	n/a	
Tide Gauge	8/13/2025	10:20	13.00	n/a	

Kalaeloa Aquifer Testing Field Data - Onsite Tide Gauge Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc pvc)	Pump Rate (GPM)	Notes
Tide Gauge	8/13/2025	11:11	11.85	n/a	
Tide Gauge	8/13/2025	11:12	11.85	n/a	
Tide Gauge	8/13/2025	11:12	11.85	n/a	
Tide Gauge	8/13/2025	14:35	12.78	n/a	
Tide Gauge	8/13/2025	14:36	12.81	n/a	
Tide Gauge	8/13/2025	14:36	12.84	n/a	
Tide Gauge	8/13/2025	15:37	12.70	n/a	
Tide Gauge	8/13/2025	15:38	12.65	n/a	
Tide Gauge	8/13/2025	15:38	12.69	n/a	
Tide Gauge	8/13/2025	16:15	12.70	n/a	
Tide Gauge	8/13/2025	16:16	12.68	n/a	
Tide Gauge	8/13/2025	16:16	12.69	n/a	
Tide Gauge	8/13/2025	18:31	11.98	n/a	
Tide Gauge	8/13/2025	18:32	11.67	n/a	
Tide Gauge	8/13/2025	18:33	11.67	n/a	
Tide Gauge	8/13/2025	20:16	11.61	n/a	
Tide Gauge	8/13/2025	20:17	11.71	n/a	
Tide Gauge	8/13/2025	20:18	11.72	n/a	
Tide Gauge	8/14/2025	7:03	11.81	n/a	
Tide Gauge	8/14/2025	7:03	11.81	n/a	
Tide Gauge	8/14/2025	7:03	11.81	n/a	
Tide Gauge	8/14/2025	7:43	11.74	n/a	
Tide Gauge	8/14/2025	7:44	11.74	n/a	
Tide Gauge	8/14/2025	7:44	11.74	n/a	
Tide Gauge	8/14/2025	8:11	11.74	n/a	
Tide Gauge	8/14/2025	8:11	11.74	n/a	
Tide Gauge	8/14/2025	8:11	11.74	n/a	
Tide Gauge	8/14/2025	10:54	11.81	n/a	
Tide Gauge	8/14/2025	10:55	11.80	n/a	
Tide Gauge	8/14/2025	10:55	11.75	n/a	
Tide Gauge	8/14/2025	11:24	11.67	n/a	
Tide Gauge	8/14/2025	11:25	11.66	n/a	
Tide Gauge	8/14/2025	11:26	11.66	n/a	
Tide Gauge	8/14/2025	16:00	13.65	n/a	
Tide Gauge	8/14/2025	16:19	13.24	n/a	
Tide Gauge	8/14/2025	16:20	13.77	n/a	
Tide Gauge	8/14/2025	16:21	13.53	n/a	
Tide Gauge	8/16/2025	9:51	11.37	n/a	
Tide Gauge	8/16/2025	9:53	11.37	n/a	
Tide Gauge	8/16/2025	9:55	11.32	n/a	
Tide Gauge	8/16/2025	10:43	11.31	n/a	
Tide Gauge	8/16/2025	10:44	11.29	n/a	
Tide Gauge	8/16/2025	10:44	11.31	n/a	
Tide Gauge	8/16/2025	12:21	11.17	n/a	
Tide Gauge	8/16/2025	12:22	11.23	n/a	
Tide Gauge	8/16/2025	12:22	11.20	n/a	
Tide Gauge	8/16/2025	13:29	11.17	n/a	
Tide Gauge	8/16/2025	13:29	11.18	n/a	
Tide Gauge	8/16/2025	13:30	11.19	n/a	
Tide Gauge	8/18/2025	9:33	13.67	n/a	
Tide Gauge	8/18/2025	9:34	13.59	n/a	
Tide Gauge	8/18/2025	9:35	13.62	n/a	

Kalaeloa Aquifer Testing Field Data - Onsite Tide Gauge Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc pvc)	Pump Rate (GPM)	Notes
Tide Gauge	8/19/2025	8:35	13.74	n/a	
Tide Gauge	8/19/2025	8:37	14.16	n/a	
Tide Gauge	8/19/2025	8:38	13.58	n/a	
Tide Gauge	8/19/2025	9:33	13.85	n/a	
Tide Gauge	8/19/2025	9:34	13.87	n/a	
Tide Gauge	8/19/2025	9:34	13.70	n/a	
Tide Gauge	8/20/2025	8:13	14.48	n/a	
Tide Gauge	8/20/2025	8:14	13.96	n/a	
Tide Gauge	8/20/2025	8:15	13.99	n/a	
Tide Gauge	8/21/2025	8:03	13.82	n/a	
Tide Gauge	8/21/2025	8:04	13.29	n/a	
Tide Gauge	8/21/2025	8:05	13.25	n/a	
Tide Gauge	8/21/2025	10:04	14.08	n/a	
Tide Gauge	8/21/2025	10:04	13.85	n/a	

Kalaeloa Aquifer Testing Field Data - KPEast and KPWest Manual Water Level Measurements					
Well Name	Date	Time	Manual WL (ft btoc)	Pump Rate (GPM)	Notes
KPEast	5/30/2025	14:58	6.19	n/a	
KPEast	7/1/2025	12:08	6.10	n/a	
KPEast	7/1/2025	12:19	6.04	n/a	
KPEast	8/29/2025	8:45	5.50	n/a	
KPWest	5/30/2025	15:04	5.91	n/a	
KPWest	7/1/2025	12:15	9.39	n/a	
KPWest	7/1/2025	12:20	9.38	n/a	
KPWest	8/29/2025	8:40	8.60	n/a	

Kalaeloa Aquifer Testing Field Data - Water Quality Horiba Readings										
Identification	Date	Time	Temp (°C)	Conductivity (mS/cm)	TDS (g/L)	pH	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Notes
Offshore 1	5/27/2025	12:22								Offshore 1 sample taken, 5 km offshore, 400 ft depth
Offshore 1	5/27/2025	12:39	24.48	51.4	30.8	7.06	0	215	7.77	Offshore 1
Offshore 2	5/27/2025	12:51								Offshore 2 sample taken, 5 km offshore, surface depth
Offshore 2	5/27/2025	12:53	26.26	53.5	32.1	7.99	0	154	11.29	Offshore 2
Offshore 3	5/27/2025	13:30	26.4	521		8.02	0	106	6.5	Offshore 3, immediately offshore of canal, surface depth
MW 1	7/22/2025	10:16								MW1, started purge pumping
MW 1	7/22/2025	10:23	23.84	15.7		6.71	0.11	5	10.11	MW 1, sulfur smell, clear
MW 1	7/22/2025	10:25	28.65	15.3		7.05	1.6	-14	5.56	MW 1, sulfur smell diminishing
MW 1	7/22/2025	10:27	28.51	15.1		7.03	1.1	-10	8.79	
MW 1	7/22/2025	10:29	28.45	15.1		7.04	2.4	-16	4.27	
MW 1	7/22/2025	10:35	28.9	14.8		7	6.8	-9	8.84	MW 1, sulfur smell nearly gone
MW 2	7/22/2025	12:11								MW2, started purge pumping
MW 2	7/22/2025	12:16	32.38	10.1		7.04	84.7	-89	10.32	MW2, sulfur smell
MW 2	7/22/2025	12:19	30.36	8.98		7.05	38	-72	5.75	
Well 15 Step Test	7/3/2025	9:49		50.2		7.26	0		3.21	
Well 15 Step Test	7/3/2025	9:54	19.55	50.5	32.42	7.35	0		3.2	
Well 15 Step Test	7/3/2025	9:59	17.3	51.2	33.17	7.46	0		6.49	
Well 15 Step Test	7/3/2025	10:03	17.25	52.5	33.54	7.44	0		6.5	
Well 15 Step Test	7/3/2025	10:09	17.3	51.6	33.98	7.45	0		6.59	
Well 15 Step Test	7/3/2025	11:15	20.48	49.4	32.72	7.46	1		5.32	
Well 15 Step Test	7/3/2025	13:09	20.1	50.1	33.34	7.45	0		4.59	
Well 15 Step Test	7/7/2025	8:51	20.54	48.5						
Well 15 Step Test	7/7/2025	9:02	23.24	49.4						
Well 15 Step Test	7/7/2025	9:09	20.28	49.6						
Well 15 Step Test	7/7/2025	9:21	19.27	50.3						
Well 15 Step Test	7/7/2025	9:30	17.67	50.6						
Well 15 Step Test	7/7/2025	9:40	22.05	51.1						
Well 15 Step Test	7/7/2025	9:49	16.78	51.2						
Well 15 Step Test	7/7/2025	10:12	18.06	49.5						
Well 15 Step Test	7/7/2025	10:17	20.44	50.9						
Well 15 Step Test	7/7/2025	10:30	21.42	50.6						
Well 15 Step Test	7/7/2025	10:42	22.88	50.7						
Well 15 Step Test	7/7/2025	11:00	22.35	50.2						
Well 15 Step Test	7/7/2025	11:28	18.00	50.7						
Well 15 Step Test	7/7/2025	11:39	21.58	50.5						
Well 15 Step Test	7/7/2025	11:53	20.19	50.8						
Well 15 Step Test	7/7/2025	12:13	18.35	49.6						
Well 15 Step Test	7/7/2025	12:25	23.01	50.7	30.4					
Well 15 Step Test	7/7/2025	12:41	18.96	48.9	29.7					
Well 15 Step Test	7/7/2025	12:45	16.67	50.0	30.4					
Well 15 Step Test	7/7/2025	13:03	17.63	50.2	30.1					
Well 15 Step Test	7/7/2025	13:15	17.50	51.0	30.4					
Well 15 Step Test	7/7/2025	13:36	17.60	49.9	30.3					
Well 15 - Cycle Test	7/9/2025	10:11	19.26	47.6	29.1	7.4	0	121	12.26	
Well 15 - Cycle Test	7/9/2025	10:22	18.61	49.2	29.9					
Well 15 - Cycle Test	7/9/2025	11:31	20.33	49.3	30.0					
Well 15 - Cycle Test	7/9/2025	12:48	20.23	49.1	29.9					
Well 15 - Cycle Test	7/9/2025	13:41	20.40	48.6	29.6					
Well 15 - Cycle Test	7/9/2025	19:24	17.56	50.7	30.4					
Well 15 - Cycle Test	7/9/2025	19:43	16.28	49.5	30.1					
Well 15 - Cycle Test	7/9/2025	19:59	16.25	50.8	30.5					
Well 15 - Cycle Test	7/9/2025	20:21	16.24	50.9	30.5					
Well 15 - Cycle Test	7/9/2025	20:30	16.55	50.3	30.1					
Well 15 - Cycle Test	7/9/2025	20:40	16.60	50.7	30.4					
Well 15 - Cycle Test	7/9/2025	20:50	16.45	50.6	30.4					
Well 15 - Cycle Test	7/9/2025	21:00	17.33	50.9	30.2					
Well 15 - Cycle Test	7/9/2025	21:15	18.03	50.8	30.4					
Well 15 - Cycle Test	7/9/2025	21:30	17.07	50.2	30.1					
Well 15 - Cycle Test	7/9/2025	21:45	17.43	50.7	30.1					
Well 15 - Cycle Test	7/9/2025	22:00	16.41	50.4	30.2					
Well 15 - Cycle Test	7/9/2025	22:15	17.03	50.3	30.2					
Well 15 - Cycle Test	7/9/2025	22:30	16.45	50.4	30.2					
Well 15 - Cycle Test	7/9/2025	22:45	10.11	51.1	30.0					
Well 15 - Cycle Test	7/9/2025	23:00	16.60	50.8	30.4					
Well 15 - Cycle Test	7/10/2025	0:00	16.80	30.2	30.1					
Well 15 - Cycle Test	7/10/2025	1:00	19.99	51.2	30.7					
Well 15 - Cycle Test	7/10/2025	2:00	20.14	51.0	30.6					
Well 15 - Cycle Test	7/10/2025	3:00	17.59	50.4	30.3					

Kalaeloa Aquifer Testing Field Data - Water Quality Horiba Readings										
Identification	Date	Time	Temp (°C)	Conductivity (mS/cm)	TDS (g/L)	pH	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Notes
Well 15 - Cycle Test	7/10/2025	4:00	20.12	50.9	30.6					
Well 15 - Cycle Test	7/10/2025	5:00	19.03	50.2	30.1					
Well 15 - Cycle Test	7/10/2025	6:00	20.04	50.9	30.6					
Well 15 - Cycle Test	7/10/2025	11:10	18.35	51.8	31.1					
Well 15 - Cycle Test	7/10/2025	11:41	17.51	52.8	30.8					
Well 15 - Cycle Test	7/10/2025	11:50	16.85	50.8	30.3					
Well 15 - Cycle Test	7/10/2025	12:12	17.87	47.4	28.9					
Well 15 - Cycle Test	7/10/2025	13:02	18.18	49.6	30.4					
Well 15 - Cycle Test	7/10/2025	13:59	19.34	51.2	30.7					
Well 15 - Cycle Test	7/10/2025	14:57	19.52	49.5	30.2					
Well 15 - 120hr Test	7/12/2025	9:50	18.44	49.0	29.7					
Well 15 - 120hr Test	7/12/2025	10:20	18.61	49.0	30.2					
Well 15 - 120hr Test	7/12/2025	10:50	19.30	48.7	29.6					
Well 15 - 120hr Test	7/12/2025	11:00	18.62	50.1	30.2					
Well 15 - 120hr Test	7/12/2025	11:10	18.50	49.5	30.2					
Well 15 - 120hr Test	7/12/2025	12:00	19.25	49.1	30.1					
Well 15 - 120hr Test	7/12/2025	13:00	20.14	48.3	31.4					
Well 15 - 120hr Test	7/12/2025	14:00	19.24	49.6	30.1					
Well 15 - 120hr Test	7/12/2025	15:00	19.35	49.9	30.2					
Well 15 - 120hr Test	7/12/2025	16:00	18.80	49.5	30.5					
Well 15 - 120hr Test	7/12/2025	17:00	19.11	49.6	30.4					
Well 15 - 120hr Test	7/12/2025	18:00	18.49	49.7	30.4					
Well 15 - 120hr Test	7/12/2025	19:00	18.12	49.9	30.5					
Well 15 - 120hr Test	7/12/2025	20:00	17.69	30.6	30.5					
Well 15 - 120hr Test	7/12/2025	21:00	17.43	49.7	30.3					
Well 15 - 120hr Test	7/12/2025	22:00	17.66	50.6	30.2					
Well 15 - 120hr Test	7/12/2025	23:00	17.50	50.5	30.3					
Well 15 - 120hr Test	7/13/2025	0:00	17.47	50.5	30.2					
Well 15 - 120hr Test	7/13/2025	1:00	16.23	50.9	30.5					
Well 15 - 120hr Test	7/13/2025	2:00	17.48	50.3	30.7					
Well 15 - 120hr Test	7/13/2025	3:00	16.11	50.4	30.5					
Well 15 - 120hr Test	7/13/2025	4:00	16.71	50.9	30.4					
Well 15 - 120hr Test	7/13/2025	5:00	16.50	50.7	30.4					
Well 15 - 120hr Test	7/13/2025	6:00	16.68	50.4	30.2					
Well 15 - 120hr Test	7/13/2025	7:00	17.14	50.2	30.1					
Well 15 - 120hr Test	7/13/2025	8:00	18.24	50.7	30.3					
Well 15 - 120hr Test	7/13/2025	9:00	18.65	49.8	30.0					
Well 15 - 120hr Test	7/13/2025	10:00	18.71	50.1	30.5					
Well 15 - 120hr Test	7/13/2025	11:00	18.88	50.1	30.2					
Well 15 - 120hr Test	7/13/2025	12:00	18.83	49.9	30.2					
Well 15 - 120hr Test	7/13/2025	13:00	19.04	49.6	30.1					
Well 15 - 120hr Test	7/13/2025	14:00	18.81	49.3	30.2					
Well 15 - 120hr Test	7/13/2025	15:00	18.86	49.8	30.3					
Well 15 - 120hr Test	7/13/2025	16:00	19.10	51.1	30.6					
Well 15 - 120hr Test	7/13/2025	17:00	18.34	51.2	30.8					
Well 15 - 120hr Test	7/13/2025	18:00	18.82	51.4	30.9					
Well 15 - 120hr Test	7/13/2025	19:00	18.65	50.4	30.2					
Well 15 - 120hr Test	7/13/2025	20:00	17.86	51.2	30.5					
Well 15 - 120hr Test	7/13/2025	21:00	17.70	49.7	30.3					
Well 15 - 120hr Test	7/13/2025	22:00	17.30	50.1	30.5					
Well 15 - 120hr Test	7/13/2025	23:00	17.36	50.1	30.0					
Well 15 - 120hr Test	7/14/2025	0:00	17.07	50.5	30.3					
Well 15 - 120hr Test	7/14/2025	1:00	17.03	50.3	30.1					
Well 15 - 120hr Test	7/14/2025	2:00	16.70	51.1	30.5					
Well 15 - 120hr Test	7/14/2025	3:00	16.74	50.6	30.2					
Well 15 - 120hr Test	7/14/2025	4:00	16.64	51.0	30.5					
Well 15 - 120hr Test	7/14/2025	5:00	16.58	50.7	30.4					
Well 15 - 120hr Test	7/14/2025	6:00	16.28	51.1	30.7					
Well 15 - 120hr Test	7/14/2025	7:00	16.51	50.8	30.5					
Well 15 - 120hr Test	7/14/2025	7:15	16.58	51.0	30.6					
Well 15 - 120hr Test	7/14/2025	7:30	16.92	50.1	30.3					
Well 15 - 120hr Test	7/14/2025	7:45	16.84	51.1	30.6					
Well 15 - 120hr Test	7/14/2025	8:00	17.24	51.8	31.0					
Well 15 - 120hr Test	7/14/2025	9:00	18.73	50.9	30.0					
Well 15 - 120hr Test	7/14/2025	11:00	19.21	43.1	26.3					
Well 15 - 120hr Test	7/14/2025	12:00	19.33	43.7	26.6					
Well 15 - 120hr Test	7/14/2025	13:00	19.05	44.0	27.0					
Well 15 - 120hr Test	7/14/2025	14:00	19.30	43.5	26.4					

Kalaeloa Aquifer Testing Field Data - Water Quality Horiba Readings										
Identification	Date	Time	Temp (°C)	Conductivity (mS/cm)	TDS (g/L)	pH	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Notes
Well 15 - 120hr Test	7/14/2025	15:00	19.61	43.8	26.6					
Well 15 - 120hr Test	7/14/2025	16:00	19.30	43.0	26.2					
Well 15 - 120hr Test	7/14/2025	17:00	19.74	44.1	26.9					
Well 15 - 120hr Test	7/14/2025	18:00	18.89	44.5	27.1					
Well 15 - 120hr Test	7/14/2025	19:00	18.54	44.9	27.4					
Well 15 - 120hr Test	7/14/2025	20:00	17.90	44.1	26.8					
Well 15 - 120hr Test	7/14/2025	21:00	17.92	43.8	26.6					
Well 15 - 120hr Test	7/14/2025	22:00	17.92	43.9	26.7					
Well 15 - 120hr Test	7/14/2025	23:00	17.96	43.6	26.5					
Well 15 - 120hr Test	7/15/2025	0:00	18.01	43.8	26.6					
Well 15 - 120hr Test	7/15/2025	1:00	17.93	43.7	26.6					
Well 15 - 120hr Test	7/15/2025	2:00	17.83	43.8	26.6					
Well 15 - 120hr Test	7/15/2025	3:00	17.54	43.7	26.6					
Well 15 - 120hr Test	7/15/2025	4:00	17.67	43.5	26.6					
Well 15 - 120hr Test	7/15/2025	5:00	17.48	47.8	26.6					
Well 15 - 120hr Test	7/15/2025	6:00	16.67	44.2	26.8					
Well 15 - 120hr Test	7/15/2025	7:00	17.91	43.4	26.5					
Well 15 - 120hr Test	7/15/2025	8:00	18.19	43.6	26.4					
Well 15 - 120hr Test	7/15/2025	9:00	18.54	44.1	26.8					
Well 15 - 120hr Test	7/15/2025	10:00	19.42	42.3	25.7					
Well 15 - 120hr Test	7/15/2025	11:00	19.31	42.6	25.9					
Well 15 - 120hr Test	7/15/2025	12:00	19.42	43.6	26.6					
Well 15 - 120hr Test	7/15/2025	13:00	20.93	43.5	26.6					
Well 15 - 120hr Test	7/15/2025	14:00	19.57	44.4	27.0					
Well 15 - 120hr Test	7/15/2025	15:00	19.51	43.2	26.2					
Well 15 - 120hr Test	7/15/2025	16:00	19.89	43.6	26.5					
Well 15 - 120hr Test	7/15/2025	17:00	19.35	43.2	26.2					
Well 15 - 120hr Test	7/15/2025	18:00	19.33	43.8	26.6					
Well 15 - 120hr Test	7/15/2025	19:00	18.61	43.7	26.6					
Well 15 - 120hr Test	7/15/2025	21:00	17.00	43.8	26.6					
Well 15 - 120hr Test	7/15/2025	22:00	17.15	43.8	26.6					
Well 15 - 120hr Test	7/15/2025	23:00	17.48	43.9	26.6					
Well 15 - 120hr Test	7/16/2025	0:00	16.94	44.4	26.9					
Well 15 - 120hr Test	7/16/2025	1:00	16.93	43.9	26.7					
Well 15 - 120hr Test	7/16/2025	2:00	17.41	43.9	26.8					
Well 15 - 120hr Test	7/16/2025	3:00	17.40	43.8	26.7					
Well 15 - 120hr Test	7/16/2025	4:00	17.05	44.1	26.8					
Well 15 - 120hr Test	7/16/2025	5:00	16.91	44.9	26.9					
Well 15 - 120hr Test	7/16/2025	6:00	16.84	45.1	27.3					
Well 15 - 120hr Test	7/16/2025	7:00	17.21	44.0	26.8					
Well 15 - 120hr Test	7/16/2025	8:00	18.17	43.8	26.7					
Well 15 - 120hr Test	7/16/2025	9:00	18.80	43.7	26.6					
Well 15 - 120hr Test	7/16/2025	10:00	19.85	43.6	26.2					
Well 15 - 120hr Test	7/16/2025	11:00	20.65	42.8	26.1					
Well 15 - 120hr Test	7/16/2025	12:00	20.14	43.5	26.4					
Well 15 - 120hr Test	7/16/2025	13:00	20.99	43.1	26.1					
Well 15 - 120hr Test	7/16/2025	14:00	20.91	42.7	26.0					
Well 15 - 120hr Test	7/16/2025	15:00	20.67	43.2	26.3					
Well 15 - 120hr Test	7/16/2025	16:00	20.60	43.2	26.2					
Well 15 - 120hr Test	7/16/2025	17:00	21.52	41.8	25.5					
Well 15 - 120hr Test	7/16/2025	18:00	20.56	42.9	26.1					
Well 15 - 120hr Test	7/16/2025	19:00	18.88	43.0	26.6					
Well 15 - 120hr Test	7/16/2025	21:00	17.48	43.3	26.3					
Well 15 - 120hr Test	7/16/2025	22:00	17.58	43.7	26.5					
Well 15 - 120hr Test	7/16/2025	23:00	17.39	43.8	26.6					
Well 15 - 120hr Test	7/17/2025	0:00	17.95	43.6	26.5					
Well 15 - 120hr Test	7/17/2025	1:00	17.69	43.1	26.4					
Well 15 - 120hr Test	7/17/2025	2:00	17.56	43.3	26.5					
Well 15 - 120hr Test	7/17/2025	3:00	18.76	43.3	26.4					
Well 15 - 120hr Test	7/17/2025	4:00	16.81	44.1	26.9					
Well 15 - 120hr Test	7/17/2025	5:00	17.82	43.8	26.7					
Well 15 - 120hr Test	7/17/2025	6:00	17.32	43.2	26.7					
Well 15 - 120hr Test	7/17/2025	7:00	17.92	43.5	26.5					
Well 15 - 120hr Test	7/17/2025	8:00	17.98	43.6	26.6					
Well 15 - 120hr Test	7/17/2025	9:00	17.77	43.9	26.7					
Well 15 - 120hr Test	7/17/2025	9:30	18.38	43.2	26.3					
Well 14 - Step Test	7/28/2025	9:40	27.44	6.97		6.97	0	69	7.07	Water observed clear, no odor
Well 14 - Step Test	7/28/2025	9:50	26.38	51.9		7.17	0	52	7.42	

Kalaeloa Aquifer Testing Field Data - Water Quality Horiba Readings										
Identification	Date	Time	Temp (°C)	Conductivity (mS/cm)	TDS (g/L)	pH	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Notes
Well 14 - Step Test	7/28/2025	9:54	26.4	53.1		7.25	0	56	7.35	
Well 14 - Step Test	7/28/2025	10:00	26.47	53.6		7.35	0	57	7.17	
Well 14 - Step Test	7/28/2025	10:05	26.96	53.5		7.42	0	55	7.13	
Well 14 - Step Test	7/28/2025	11:00	27	53.4		7.52	0	90	10	
Well 14 - Step Test	7/28/2025	11:31	28	47.4		7.55	0	68	7.44	
Well 14 - Step Test	7/28/2025	12:30	26.79	47.8		7.56	0	68	9.75	
Well 14 - Step Test	7/28/2025	13:06	26.88	47.4		7.59	0	81	9.76	
Well 14 - Step Test	7/28/2025	13:22	26.47	47.7		7.61	0	81	7.71	
Well 14 - Step Test	7/28/2025	13:56	26.76	47.6		7.58	0	64	9.19	
Well 14 - Step Test	7/28/2025	13:00	27.1	48		7.55	0	66	8.31	
Well 14 - Step Test	7/28/2025	14:48	26.54	47.6		7.53	0	29	7.98	
Well 14 - Step Test	7/28/2025	15:01	26.26	48		7.62	0	58	2.23	
Well 14 - Step Test	7/28/2025	15:23	26.39	47.4		7.43	0	105	8.73	
Well 14 - 120hr Test	7/30/2025	9:43	26.74	49.6	29.6	7.48				
Well 14 - 120hr Test	7/30/2025	10:10	27.63	48.4	29.5					
Well 14 - 120hr Test	7/30/2025	10:58	27.99	48.6	29.6					
Well 14 - 120hr Test	7/30/2025	14:30	28.59	46.7	28.3					
Well 14 - 120hr Test	7/30/2025	17:00	28.30	47.9	29.3					
Well 14 - 120hr Test	7/30/2025	20:00	26.28	49.0	29.9					
Well 14 - 120hr Test	7/30/2025	22:00	25.72	48.9	29.8					
Well 14 - 120hr Test	7/31/2025	0:00	25.35	49.2	30.0					
Well 14 - 120hr Test	7/31/2025	1:00	25.01	49.0	29.9					
Well 14 - 120hr Test	7/31/2025	2:00	24.95	49.0	29.9					
Well 14 - 120hr Test	7/31/2025	3:02	24.90	49.2	30.0					
Well 14 - 120hr Test	7/31/2025	4:00	24.94	49.2	30.0					
Well 14 - 120hr Test	7/31/2025	5:00	24.95	49.1	29.9					
Well 14 - 120hr Test	7/31/2025	6:00	24.91	49.1	29.9					
Well 14 - 120hr Test	7/31/2025	7:00	25.09	49.2	30.0					
Well 14 - 120hr Test	7/31/2025	9:00	25.96	48.9	29.8					
Well 14 - 120hr Test	7/31/2025	10:00	26.49	48.6	29.6					
Well 14 - 120hr Test	7/31/2025	11:00	26.02	40.2	29.4					
Well 14 - 120hr Test	7/31/2025	13:01	27.34	48.8	29.7					
Well 14 - 120hr Test	7/31/2025	15:00	28.02	48.1	29.2					
Well 14 - 120hr Test	7/31/2025	17:00	27.60	48.5	29.5					
Well 14 - 120hr Test	7/31/2025	19:00	26.28	49.1	30.0					
Well 14 - 120hr Test	7/31/2025	23:00	25.70	48.9	29.8					
Well 14 - 120hr Test	8/1/2025	1:00	25.35	49.1	30.0					
Well 14 - 120hr Test	8/1/2025	3:00	25.01	49.6	30.3					
Well 14 - 120hr Test	8/1/2025	5:00	25.01	49.3	30.1					
Well 14 - 120hr Test	8/1/2025	7:00	25.06	49.4	30.1					
Well 14 - 120hr Test	8/1/2025	9:30	27.32	49.3	30.1					
Well 14 - 120hr Test	8/1/2025	11:30	27.38	48.9	29.8					
Well 14 - 120hr Test	8/1/2025	14:00	27.89	49.2	30.0					
Well 14 - 120hr Test	8/1/2025	15:30	28.01	48.3	29.4					
Well 14 - 120hr Test	8/1/2025	17:30	27.02	48.9	29.8					
Well 14 - 120hr Test	8/1/2025	20:00	26.02	49.3	30.1					
Well 14 - 120hr Test	8/2/2025	0:00	25.37	49.7	30.3					
Well 14 - 120hr Test	8/2/2025	4:00	25.23	49.3	30.1					
Well 14 - 120hr Test	8/2/2025	8:00	26.14	49.0	29.9					
Well 14 - 120hr Test	8/2/2025	10:00	26.29	48.7	29.7					
Well 14 - 120hr Test	8/2/2025	12:00	27.40	48.2	29.4					
Well 14 - 120hr Test	8/2/2025	14:00	27.76	48.4	29.5					
Well 14 - 120hr Test	8/2/2025	16:01	28.12	48.5	29.5					
Well 14 - 120hr Test	8/2/2025	18:00	27.10	49.0	29.9					
Well 14 - 120hr Test	8/2/2025	19:00	26.30	49.1	29.4					
Well 14 - 120hr Test	8/2/2025	21:00	25.61	49.4	30.2					
Well 14 - 120hr Test	8/2/2025	23:00	25.33	49.5	30.2					
Well 14 - 120hr Test	8/3/2025	1:00	25.23	49.3	30.1					
Well 14 - 120hr Test	8/3/2025	3:00	25.06	49.4	30.1					
Well 14 - 120hr Test	8/3/2025	5:00	25.06	49.3	30.1					
Well 14 - 120hr Test	8/3/2025	8:00	25.59	49.5	30.2					
Well 14 - 120hr Test	8/3/2025	8:30	27.49	49.5	30.2					
Well 14 - 120hr Test	8/3/2025	9:30	26.50	49.4	30.1					
Well 14 - 120hr Test	8/3/2025	10:30	26.21	48.1	29.7					
Well 14 - 120hr Test	8/3/2025	11:30	26.36	48.4	29.5					
Well 14 - 120hr Test	8/3/2025	12:30	27.19	48.7	29.7					
Well 14 - 120hr Test	8/3/2025	13:30	27.49	48.7	29.7					
Well 14 - 120hr Test	8/3/2025	14:30	27.37	48.5	29.5					

Kalaeloa Aquifer Testing Field Data - Water Quality Horiba Readings										
Identification	Date	Time	Temp (°C)	Conductivity (mS/cm)	TDS (g/L)	pH	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Notes
Well 14 - 120hr Test	8/3/2025	15:30	27.77	48.7	29.7					
Well 14 - 120hr Test	8/3/2025	16:30	27.53	48.4	29.5					
Well 14 - 120hr Test	8/3/2025	17:29	26.79	48.9	29.8					
Well 14 - 120hr Test	8/3/2025	18:33	26.25	48.8	29.7					
Well 14 - 120hr Test	8/3/2025	20:00	25.64	49.1	30.0					
Well 14 - 120hr Test	8/3/2025	22:58	25.28	49.7	30.3					
Well 14 - 120hr Test	8/4/2025	0:15	25.19	49.5	30.2					
Well 14 - 120hr Test	8/4/2025	2:59	25.15	49.6	30.2					
Well 14 - 120hr Test	8/4/2025	4:00	25.19	49.4	30.2					
Well 14 - 120hr Test	8/4/2025	6:00	25.19	49.3	30.1					
Well 14 - 120hr Test	8/4/2025	8:00	25.62	49.3	30.1					
Well 14 - 120hr Test	8/4/2025	9:06	26.03	49.4	30.1	7.59	0.0	121	14.10	
Well 14 - 120hr Test	8/4/2025	9:29	26.07	49.1	30.0					
Well 13 - Step Test	8/11/2025	9:48	23.29	48.3		7.62	2.1		5.23	
Well 13 - Step Test	8/11/2025	9:51	21.42	49.0		7.30	4.7		4.3	
Well 13 - Step Test	8/11/2025	9:54	19.40	48.4		7.28	14		6.05	
Well 13 - Step Test	8/11/2025	9:58	17.45	49.7	30.2	7.22	4		3.5	
Well 13 - Step Test	8/11/2025	10:01	16.90	49.6	30.2	7.24	0.6		9.5	
Well 13 - Step Test	8/11/2025	10:06	17.21	50.1	30.4	7.25	0.6		3.87	
Well 13 - Step Test	8/11/2025	10:12	17.90	50.1	30.5	7.26	0		9.07	
Well 13 - Step Test	8/11/2025	10:15	16.10	51.9	31.0	7.29	1.5		9.41	
Well 13 - Step Test	8/11/2025	10:19	16.59	51.5	31.2	7.29	2.4		9.21	
Well 13 - Step Test	8/11/2025	11:22	16.63	50.8	30.2	7.51	0		11.9	
Well 13 - Step Test	8/11/2025	12:21	22.38	48.9	29.8	7.77				
Well 13 - Step Test	8/11/2025	14:49	22.64	47.3	28.8	7.63				
Well 13 - Step Test	8/11/2025	15:11	22.70	49.0	29.0	7.71				
Well 13 - Step Test	8/11/2025	15:32	22.90	49.4	30.1	7.71				
Well 13 - Cycle Test	8/13/2025	10:30	20.13	49.8	30.4	7.52	23.6		10.86	
Well 13 - Cycle Test	8/13/2025	10:45	67.05	49.6	30.2	7.68	18.2		9.48	
Well 13 - Cycle Test	8/13/2025	10:55	66.27	49.9	30.4	7.67	6.8		6.68	
Well 13 - Cycle Test	8/13/2025	11:31	19.48	48.3	29.3					
Well 13 - Cycle Test	8/13/2025	12:30	20.21	47.4	28.9					
Well 13 - Cycle Test	8/13/2025	13:30	19.70	47.7	29.0					
Well 13 - Cycle Test	8/13/2025	14:30	19.81	47.5	29.1					
Well 13 - Cycle Test	8/13/2025	19:30	19.17	49.7	30.3	7.65	10.3		5.65	
Well 13 - Cycle Test	8/13/2025	19:56	18.41	50.5	30.3	7.65	7.5		2.78	
Well 13 - Cycle Test	8/13/2025	22:59	18.77	49.9	30.3					
Well 13 - Cycle Test	8/14/2025	2:00	18.00	49.3	30.0	7.72			5.97	
Well 13 - Cycle Test	8/14/2025	11:13	24.75	49.0	29.9					
Well 13 - Cycle Test	8/14/2025	13:00	19.44	48.9	29.7					
Well 13 - Cycle Test	8/14/2025	15:01	20.93	48.4	29.5					
Well 13 - Cycle Test	8/14/2025	16:00	20.09	48.7	29.5					
Well 13 - 120hr Test	8/16/2025	11:10		49.4	30.2	7.57	0.0		4.80	
Well 13 - 120hr Test	8/16/2025	12:00	17.88	49.0	29.9	7.60	0.5		2.44	
Well 13 - 120hr Test	8/16/2025	13:15	18.45	48.5	29.3	7.67				
Well 13 - 120hr Test	8/16/2025	13:45	18.71	49.3	29.9					
Well 13 - 120hr Test	8/16/2025	14:15	18.80	49.7	30.0					
Well 13 - 120hr Test	8/16/2025	14:45	19.95	48.4	29.4					
Well 13 - 120hr Test	8/16/2025	15:15	20.15	47.8	29.3					
Well 13 - 120hr Test	8/16/2025	16:45	20.24	48.8	29.6					
Well 13 - 120hr Test	8/16/2025	20:00	19.38	49.9	30.4					
Well 13 - 120hr Test	8/17/2025	0:02	16.60	50.0	30.3	7.68			7.00	
Well 13 - 120hr Test	8/17/2025	5:00	17.20	49.7	30.3	7.74			10.80	
Well 13 - 120hr Test	8/17/2025	9:00	21.70	45.8	29.6					
Well 13 - 120hr Test	8/17/2025	13:00	19.75	48.3	31.02					
Well 13 - 120hr Test	8/17/2025	18:00	20.38	49.4	30.00					
Well 13 - 120hr Test	8/17/2025	23:02	18.34	49.2	31.82					
Well 13 - 120hr Test	8/18/2025	3:00	17.76	49.1	31.78					
Well 13 - 120hr Test	8/18/2025	4:59	17.59	49.3	31.80					
Well 13 - 120hr Test	8/18/2025	7:01	16.79	49.7	32.11					
Well 13 - 120hr Test	8/18/2025	13:00	19.65	47.6	29.00	7.71			11.37	
Well 13 - 120hr Test	8/18/2025	17:00	17.35	48.1	29.8	7.65			12.50	
Well 13 - 120hr Test	8/18/2025	20:00	18.82	49.2	29.8	7.80			10.82	
Well 13 - 120hr Test	8/19/2025	0:00	18.55	49.4	30.1					
Well 13 - 120hr Test	8/19/2025	2:00	18.55	49.4	30.1					
Well 13 - 120hr Test	8/19/2025	4:04	18.13	49.4	30.0					
Well 13 - 120hr Test	8/19/2025	6:00	18.29	49.4	30.1					
Well 13 - 120hr Test	8/19/2025	8:00	18.77	49.4	30.1					

Kalaeloa Aquifer Testing Field Data - Water Quality Horiba Readings										
Identification	Date	Time	Temp (°C)	Conductivity (mS/cm)	TDS (g/L)	pH	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Notes
Well 13 - 120hr Test	8/19/2025	11:00	19.26	47.6	28.7	7.76			11.61	
Well 13 - 120hr Test	8/19/2025	14:00	19.50	47.7	29.1	7.80			11.63	
Well 13 - 120hr Test	8/19/2025	19:00	18.90	49.8	30.4	7.75			11.91	
Well 13 - 120hr Test	8/19/2025	21:00	18.10	47.8	30.0					
Well 13 - 120hr Test	8/20/2025	1:01	23.33	45.0	27.4					
Well 13 - 120hr Test	8/20/2025	3:00	17.99	49.2	30.0					
Well 13 - 120hr Test	8/20/2025	8:58	19.06	48.5	29.3					
Well 13 - 120hr Test	8/20/2025	11:01	18.70	49.2	29.8					
Well 13 - 120hr Test	8/20/2025	16:00	19.99	49.1	29.8					
Well 13 - 120hr Test	8/20/2025	18:05	18.06	48.5	29.5					
Well 13 - 120hr Test	8/20/2025	20:00	17.80	49.5	30.2					
Well 13 - 120hr Test	8/20/2025	22:00	18.22	50.0	30.3					
Well 13 - 120hr Test	8/21/2025	0:00	18.46	49.7	30.2					
Well 13 - 120hr Test	8/21/2025	6:00	17.01	50.0	30.4					
Well 13 - 120hr Test	8/21/2025	8:53		46.7	22.2	30.40				

APPENDIX G

Aquifer Testing Photo Log

Aquifer Testing Photo Log

Photo of Well 13, facing North.

Photo of Well 14, facing north.

Photo of Well 15, facing northwest.

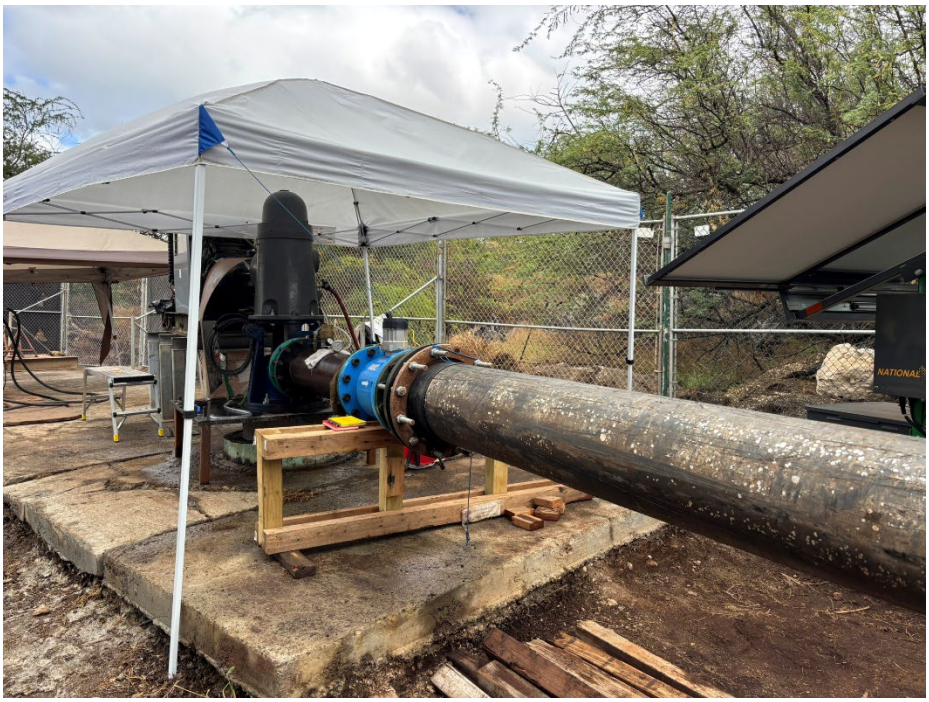
Photo of MW 1, located to the south portion of the KSDF project.

Photo of MW 2, located on Olai St.

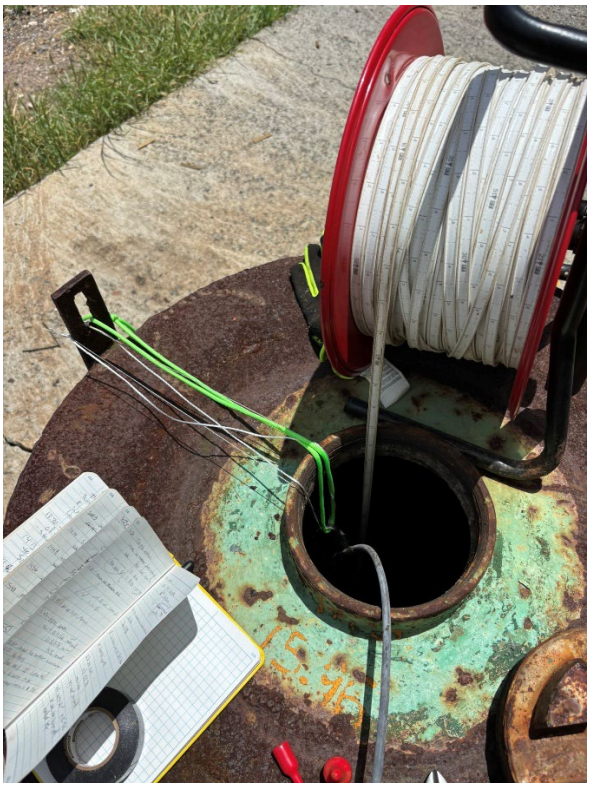
Photo of KP East (taller) and KP West (shorter) in nested well ABBEX-01 at Kalaeloa Partners.

Photo of onsite tide gauge located in the adjacent canal. The tide gauge was held in place with a weighted metal pipe and rope.

Photo of discharge piping. The setup included four outfall pipes, spaced approximately 25 ft apart. The ends of the outfall pipes were pinched to dissipate flow velocities.



Photos of aquifer testing set-up at Well 15.



Photos of instruments deployed in non-pumping wells. Water levels taken from a benchmark (black marker) on the lip of the well opening. The transducer was suspended in the well using wire and rope attached to the outside of the well housing. When manual measurements were not being taken, the well lid was gently placed back on the well with care to ensure the line suspending the transducer did not snap. The bar on top of the well was then locked into place.

Photo of transducer deployed in MW 1. For MW 1 and MW 2, the transducer cable was suspended with a parachute cord to the top of the PVC lid. A metal lip held the transducer cable at the same depth to make sure no transducer slipping occurred. Manual measurements were taken from the black mark on the lip of the PVC pipe.

APPENDIX H

Water Level Time Series Analysis

Application of Time Series Analysis to Isolate Tidal Effects on Groundwater Levels for Pumping Test Interpretation

H.1 Summary

In tidally influenced coastal aquifers, interpreting groundwater level changes during aquifer tests presents a challenge. Oscillations in hydraulic head driven by tidal forces can obscure or distort transient drawdown responses associated with aquifer testing, such as pumping tests or slug tests. Without properly accounting for tidal influences, estimates of aquifer parameters risk being biased or misleading, and conclusions regarding aquifer interaction may be unclear.

To address this, we applied time series analysis using the open-source Python package Pastas, building directly on methodologies described by Bakker and Schaars (2019) and Collenteur et al. (2019). Their work demonstrates the effectiveness of time series response function modeling for decomposing observed groundwater head fluctuations into components from individual stresses such as tides, rainfall, barometric pressure, and pumping. By defining aquifer stresses and fitting a calibrated model to historical observations, the tidal influence can effectively be removed from transient drawdown signatures caused by pumping.

As outlined by Bakker and Schaars (2019) and implemented through Pastas by Collenteur et al. (2019), time series analysis in hydrogeology involves constructing data-driven models where measured groundwater heads are expressed as the cumulative sum of responses to various stresses acting on the aquifer system over time. Each stress is paired with a response function, representing the aquifer's behavior to a unit input of that stress. Available response functions for Pastas are presented in Bakker and Schaars, 2019.

In this work:

- **Tidal fluctuations** were modeled using a Gamma response function, suitable for both recharge and periodic stresses.
- **Barometric pressure** was optionally included via an Exponential response function, to test whether it explained additional variance.
- **Noise modeling** via an ArNoiseModel (Pastas Documentation, 2024) process was also tested to assess serial correlation in model residuals.

This approach allows the decomposition of complex groundwater level signals into understandable components, providing both quantitative estimates of the relative influence of each stress and diagnostics on model performance, including Explained Variance (EVP), Root Mean Square Error (RMSE) and R^2.

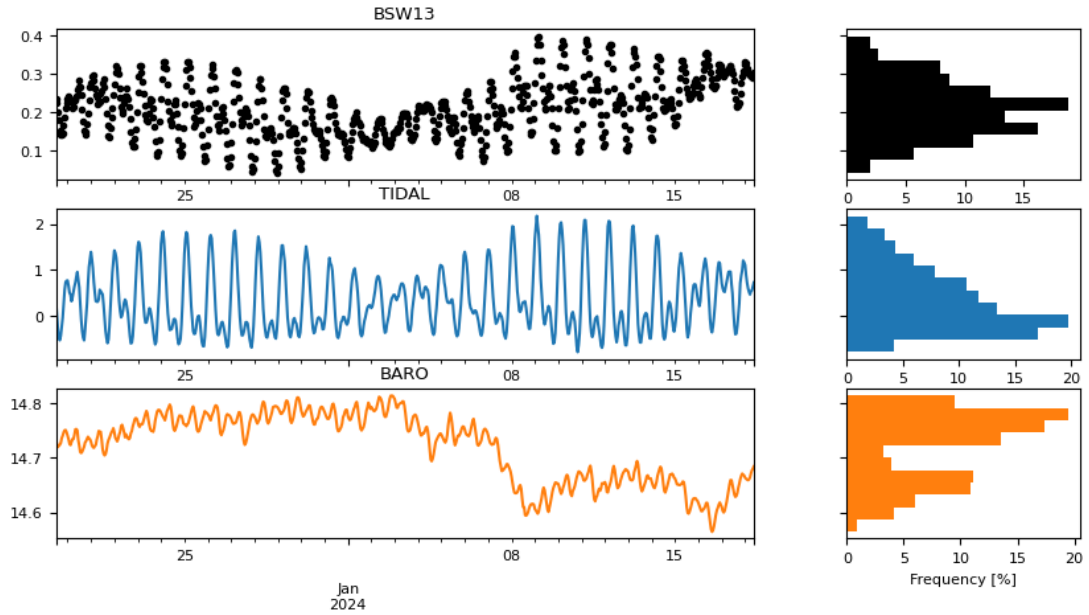
H.2 Preliminary Testing of the Method

The datasets used to test Pasta's ability to remove tidal signals consisted of hourly measurements from two observation wells (Well 13 and Well 14), tidal stage data, and barometric pressure. The total observation period spanned December 21, 2023, to January 20, 2024.

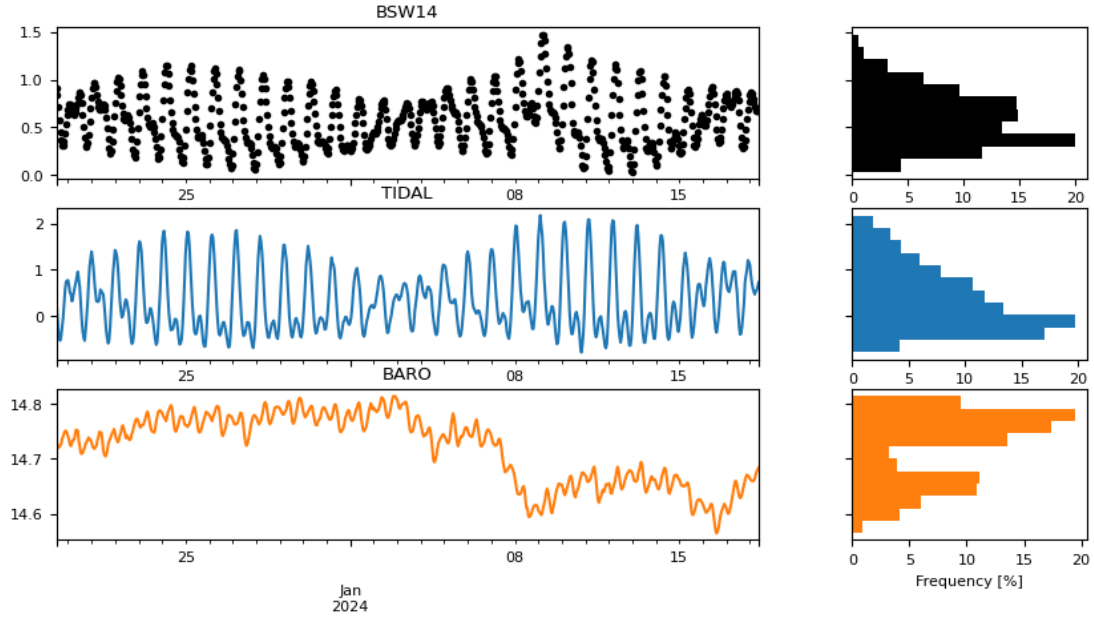
Figure 1 illustrates the observed groundwater levels from Well 13 and Well 14 alongside concurrent tidal stage and barometric pressure records over the measurement period. The time series plots clearly show periodic oscillations in both groundwater levels and tidal data, with approximate daily and twice-daily fluctuations consistent with diurnal and semidiurnal tidal cycles. This visual inspection highlights the predictable, cyclic structure in the tidal and groundwater data, which justifies the application of a time series response function modeling approach. It is important to note that the histograms on the right-hand side of each panel represent the distribution of observed values (amplitudes), not frequency spectra.

In modeling, the data from December 21, 2023, to January 10, 2024, were used for calibration. The remaining period (January 16 to January 20, 2024) served as an independent prediction period to assess the model's predictive performance on unseen data.

Each time series was resampled to a consistent hourly frequency. A 30-minute lag was applied to the tidal series based on cross-correlation analysis, accounting for the known aquifer response delay to tidal forcing.


BSW13
TIDAL
BARO
Jan
2024
Frequency [%]

(a)


BSW14
TIDAL
BARO
Jan
2024
Frequency [%]

(b)

Figure 1. Hourly time series of groundwater levels from monitoring well Well 13 (a) and Well 14 (b), tidal stage, and barometric pressure during December 21, 2023, to January 20, 2024. Histograms on the right show distributions of observed values for each dataset.

H.2.1 Model Construction

For each well, a Pastas model was constructed, incorporating tidal fluctuations using a Gamma response function. Barometric pressure was included in a separate model as a test variable with an Exponential response function. A noise model (ArNoiseModel) was evaluated but ultimately removed due to lack of improvement in model fit.

Model parameters were bounded using values consistent with hydrogeological interpretation and best practices from Collenteur et al. (2019). Solver settings included:

- Hourly time step
- 6-day warm-up period
- Solver: Pastas LmfitSolve, a robust non-linear least-squares optimization tool built on the LMFIT library. It uses the Levenberg-Marquardt algorithm and supports parameter bounds, constraints, and multiple minimization options. This solver is particularly advantageous for hydrogeological time series models, which often require flexible handling of parameter bounds and nonlinear parameter interdependencies (Pastas Documentation, 2024).

H.2.2 Results of Preliminary Testing

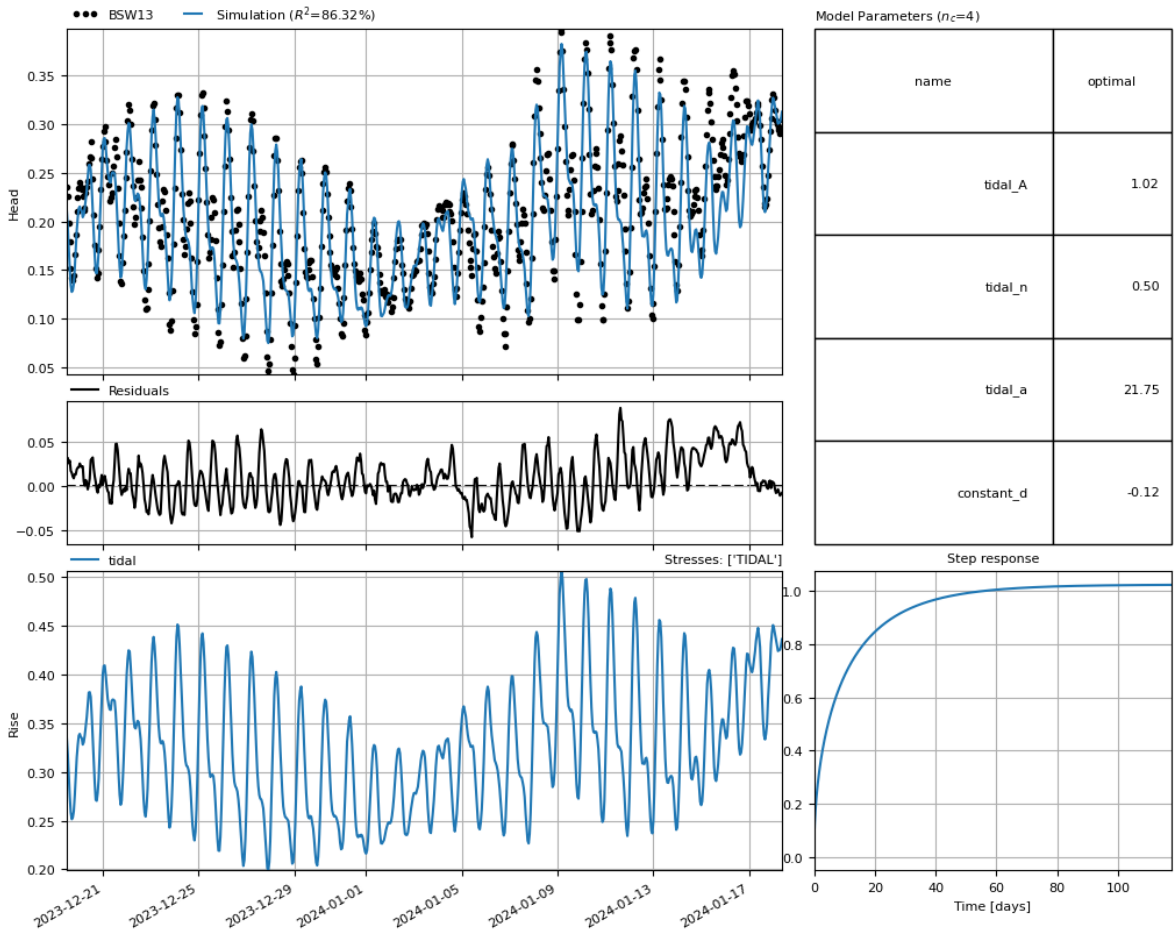
Model performance was evaluated using Explained Variance (EVP), Root Mean Square Error (RMSE), and the Coefficient of Determination (R^2) for both calibration and prediction periods. In addition, residuals were assessed for autocorrelation and normality.

The calibrated models provided strong agreement between simulated and observed groundwater heads during the fitting period, with an R^2 of 89 % and 97 % for Well 13 and Well 14, respectively.

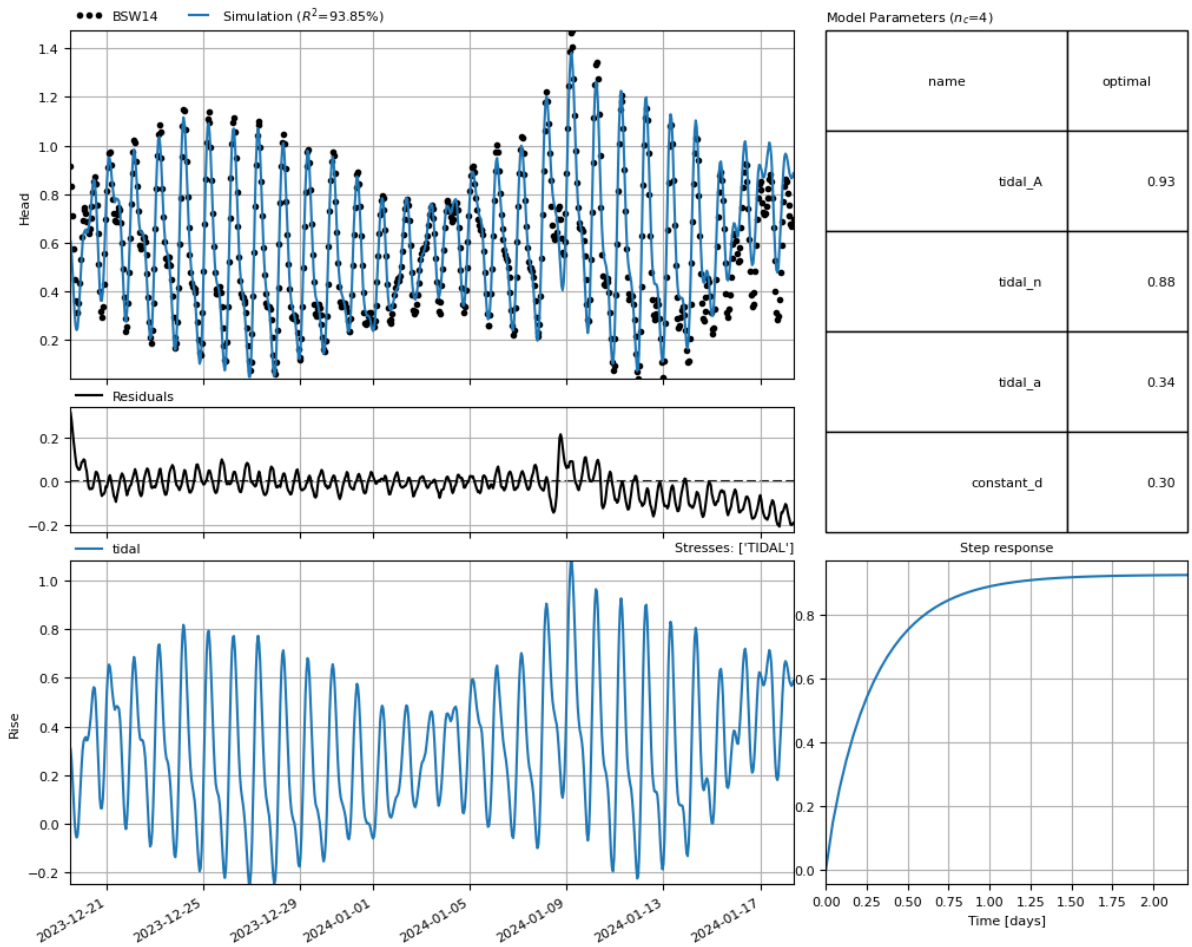
Residual analysis confirmed that tidal fluctuations accounted for the majority of short-term head variability in both wells. The residual series after removing the tidal component was clean and showed no significant remaining periodicity, suggesting the model would be suitable for isolating future pumping test drawdowns.

Autocorrelation testing using the Ljung-Box (Ljung and Box, 1978) and Durbin-Watson (Durbin and Watson, 1950) tests revealed strong autocorrelation in the residuals. This was an expected outcome given the periodic nature of the tidal influence, which introduces a predictable correlation between consecutive hourly observations as part of the daily tidal cycle.

Figure 2 presents the results of the time series analysis for Well 13 and Well 14, showing the observed groundwater levels, simulated head response to tidal forcing, and the residuals after removing the tidal component. The upper panel shows excellent agreement between the simulated and observed series, with an R^2 of 86.32 % and 93.85 % for Well 13 and Well 14, respectively. The middle panel displays the residuals, which indicates that the primary tidal influence was successfully removed, though some residual autocorrelation remains. The lower panel presents the applied tidal stress time series and the corresponding step response function, which illustrates the aquifer's dynamic response to a unit step in tidal stage. The model parameter estimates are summarized in the adjacent table, providing insight into the calibrated response function behavior.



(a)



(b)

Figure 2. Results of time series analysis for Well 13 (a) and Well 14 (b). Top panel: observed groundwater levels (black dotted line) and simulated head response to tidal fluctuations (blue line) over the fitting period. Middle panel: model residuals. Lower left: tidal stress time series. Lower right: fitted step response function for tidal stress using a Gamma response function. Model parameter estimates shown at upper right.

H.2.3 Noise and Barometric Models

Adding a noise model did not improve model fit and, in some cases, slightly degraded performance — a result consistent with observations by Collenteur et al. (2019) for high-frequency groundwater time series. In this analysis, the calibrated Gamma response function effectively captured the primary serial correlation structure within the groundwater head data, leaving limited residual autocorrelation to address.

The ArNoiseModel in Pastas accounts for residual autocorrelation by applying a first-order autoregressive (AR (1)) model to the residual series, using the formulation:

$v_t = \phi\, v_{t-1} + \varepsilon_t,$

where ϕ represents the autoregressive coefficient and ε_t is white noise. This approach is typically useful for addressing persistent autocorrelation not explained by the deterministic stress-response relationships in the model. However, in this case, the remaining autocorrelation in the residuals was largely attributable to the deterministic, periodic tidal signal — which had already been captured by the Gamma response function. As a result, adding the noise model contributed little improvement to model performance or residual diagnostics (Pastas Documentation, 2024).

Inclusion of barometric pressure as a stress yielded no tangible improvement in fit metrics. This result is likely due to the high covariance between barometric pressure and tidal fluctuations in the study area, as barometric influences often manifest indirectly through tidal level variations in coastal systems.

H.2.4 Conclusions of Preliminary Testing

This analysis confirms the practical value of time series response function modeling for pre-processing groundwater level data in tidally influenced coastal aquifers. The models successfully quantified and removed tidal effects, leaving a residual series suitable for interpreting future aquifer test responses.

Tidal fluctuations proved to be the dominant driver of short-term head variability in both observation wells during the period of observations. The tidal signal was effectively removed leaving small residuals for the calibration period. The residuals increased during the predictive period, indicating that predictions of tidal influence at a well based on the calibrated model are less reliable than when the calibration period includes the full record. Short-term predictions may be useful, but in practice the full observation data set should be used for calibration.

Noise modeling was found to be unnecessary as the calibrated response functions adequately captured autocorrelation. Barometric pressure effects were negligible after accounting for tidal fluctuations, consistent with the conceptual understanding that barometric fluctuations affect water levels partly through tidal interactions.

H.3 Analysis of 2025 Aquifer Testing

As discussed in Section 7 of the report, a total of four stresses were applied, including tidal stress and pumping stress for Wells 15, 14, and 13. In addition a linear trend was included in the analysis starting on July 29, 2025. Barometric pressure and precipitation were eliminated as stresses, based on the preliminary testing. The Gamma function was used to represent the effects of tidal stresses, in all cases.

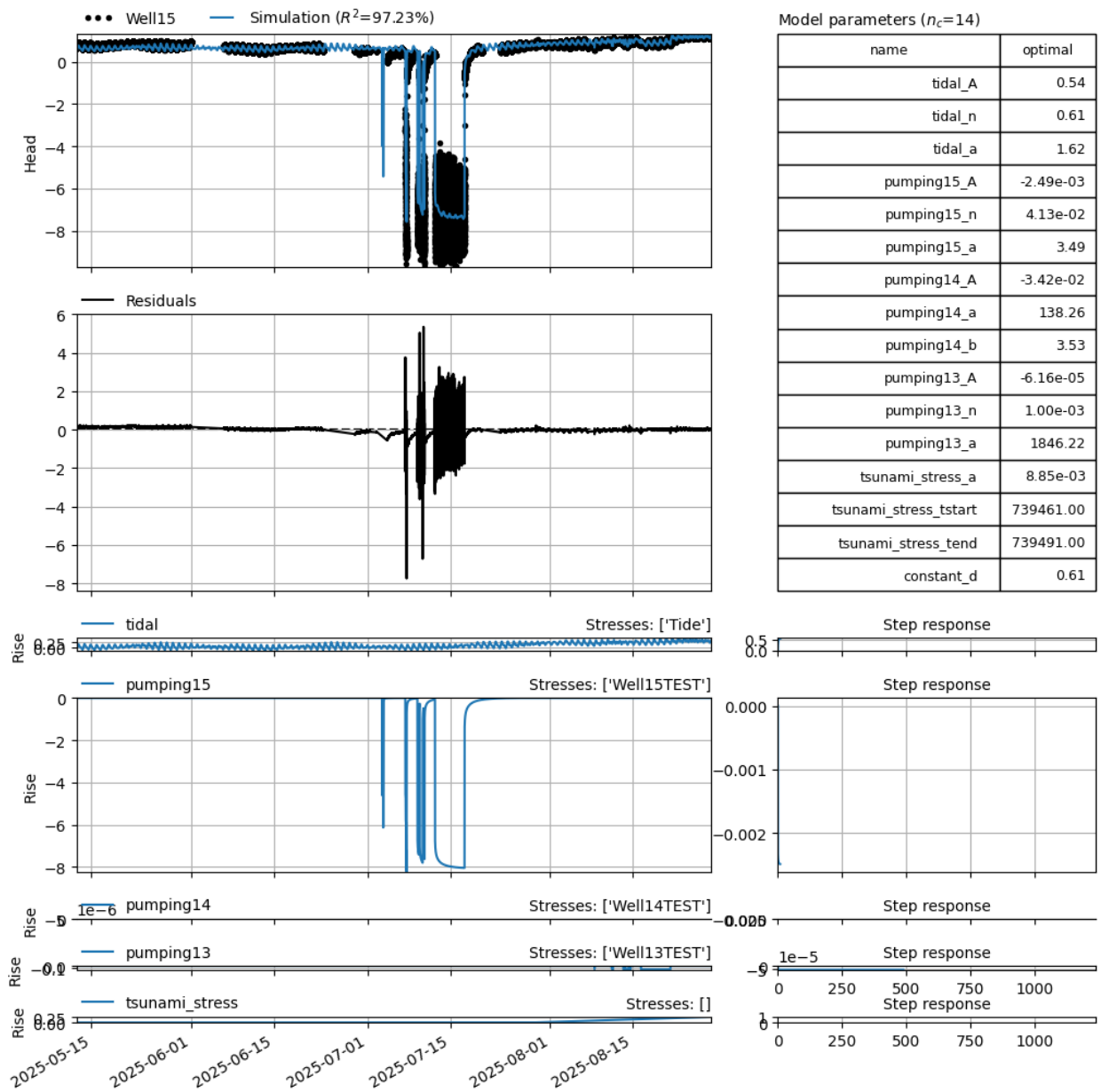
Both the Gamma function and the Hantush function were used to represent the effects of pumping stresses (see Bakker and Schaars, 2019).

In the sections below, all results are presented and summarized by the figures, which are direct output from the Pastas model. The box to the right summarizes the parameters evaluated for the response functions for each stress. On the left of each figure, the observations (black dots) are plotted over the model results (blue line) at the top. The residuals are plotted in the second frame on the left, followed by the components related to each stress.

In some cases, the time series were truncated prior to the observed linear trend beginning on July 19, 2025, to evaluate the effects of Well 15 pumping stresses. Then the full time series was analyzed through the period of the linear trend without including Well 15 pumping stresses. This was necessary to eliminate overparameterization of the time series which resulted in erroneous results.

H.3.1 Well 15 Time Series Analysis

The data for Well 15 was analyzed as a single complete time series extending from mid-May through August. All three pumping stresses are included along with a linear trend following the tsunami. Residuals are large during the pumping periods of Well 15, as the data during that period is extremely noisy, as described in Section 7 of the Final Report. Results show no impacts of the Well 14 pumping stress, and small impacts from Well 13. A small linear trend in the data with a maximum rise of 0.25 feet was detected.



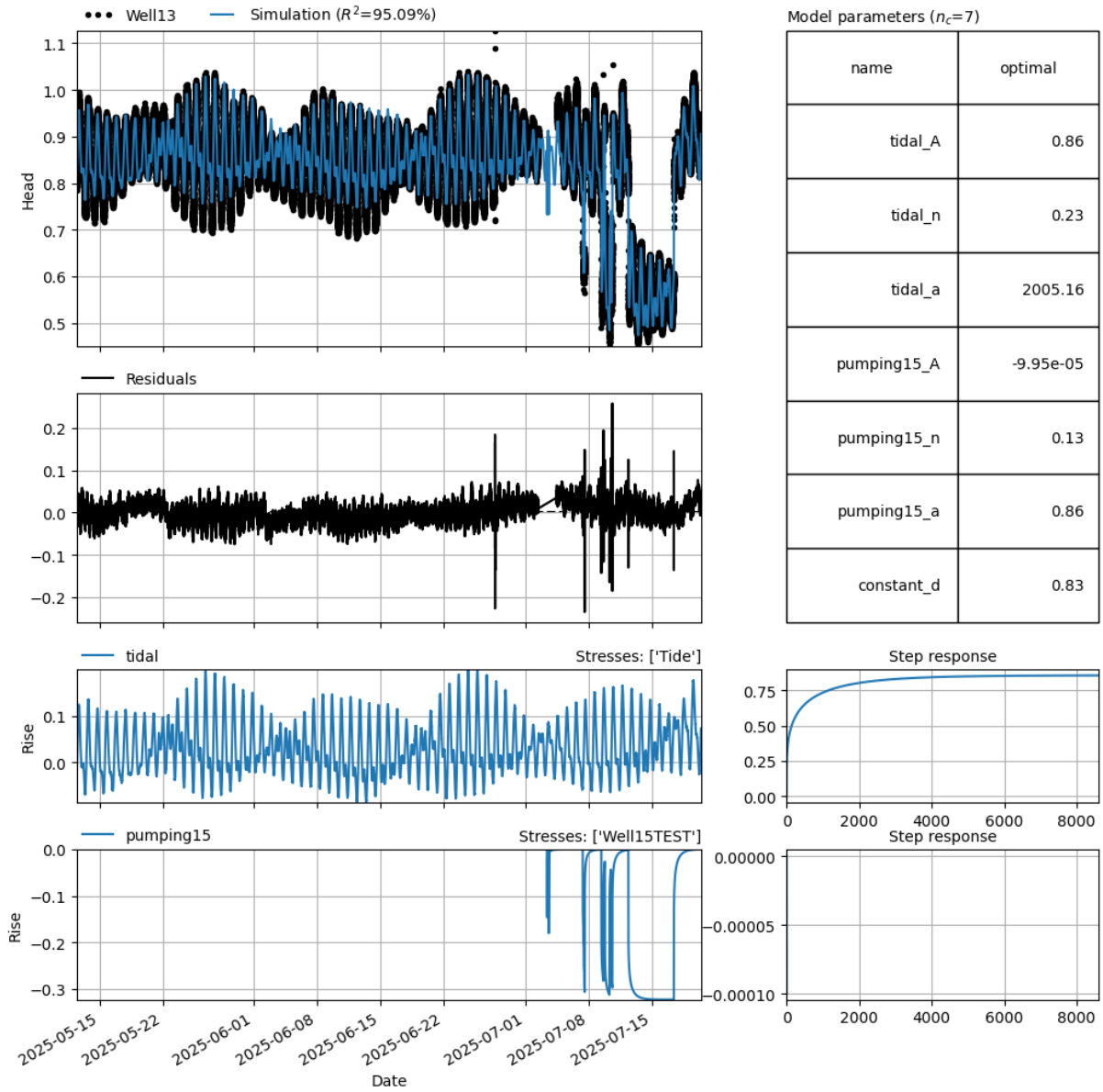
name	optimal
tidal_A	0.54
tidal_n	0.61
tidal_a	1.62
pumping15_A	-2.49e-03
pumping15_n	4.13e-02
pumping15_a	3.49
pumping14_A	-3.42e-02
pumping14_a	138.26
pumping14_b	3.53
pumping13_A	-6.16e-05
pumping13_n	1.00e-03
pumping13_a	1846.22
tsunami_stress_a	8.85e-03
tsunami_stress_tstart	739461.00
tsunami_stress_tend	739491.00
constant_d	0.61

Figure 3 Analysis of the Well 15 time series.

H.3.2 Well 13 Time Series Analysis

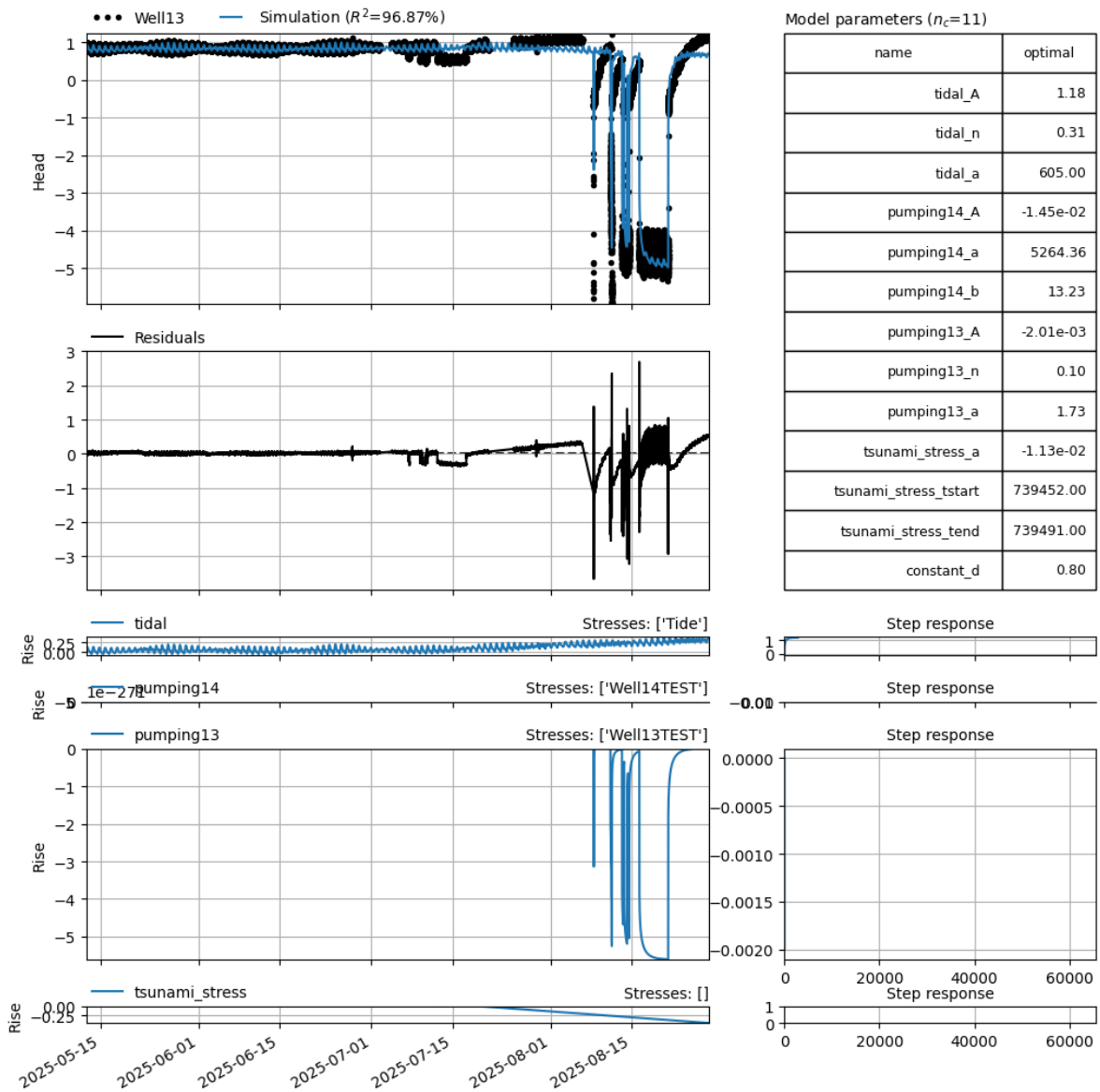
The data for Well 13 was analyzed with a truncated series to evaluate the impact of the Well 15 pumping stress. The full time series was then analyzed without consideration of the Well 15 pumping stress. When the Well 15 pumping stress was included in the analysis, the result was over-

parameterization which led to strange behavior of the calibrated response functions. Results for the truncated analysis are presented in Figure 4, followed by the full analysis period without the Well 15 pumping stress in Figure 5.



name	optimal
tidal_A	0.86
tidal_n	0.23
tidal_a	2005.16
pumping15_A	-9.95e-05
pumping15_n	0.13
pumping15_a	0.86
constant_d	0.83

Figure 4. Analysis of the truncated time series for Well 13.

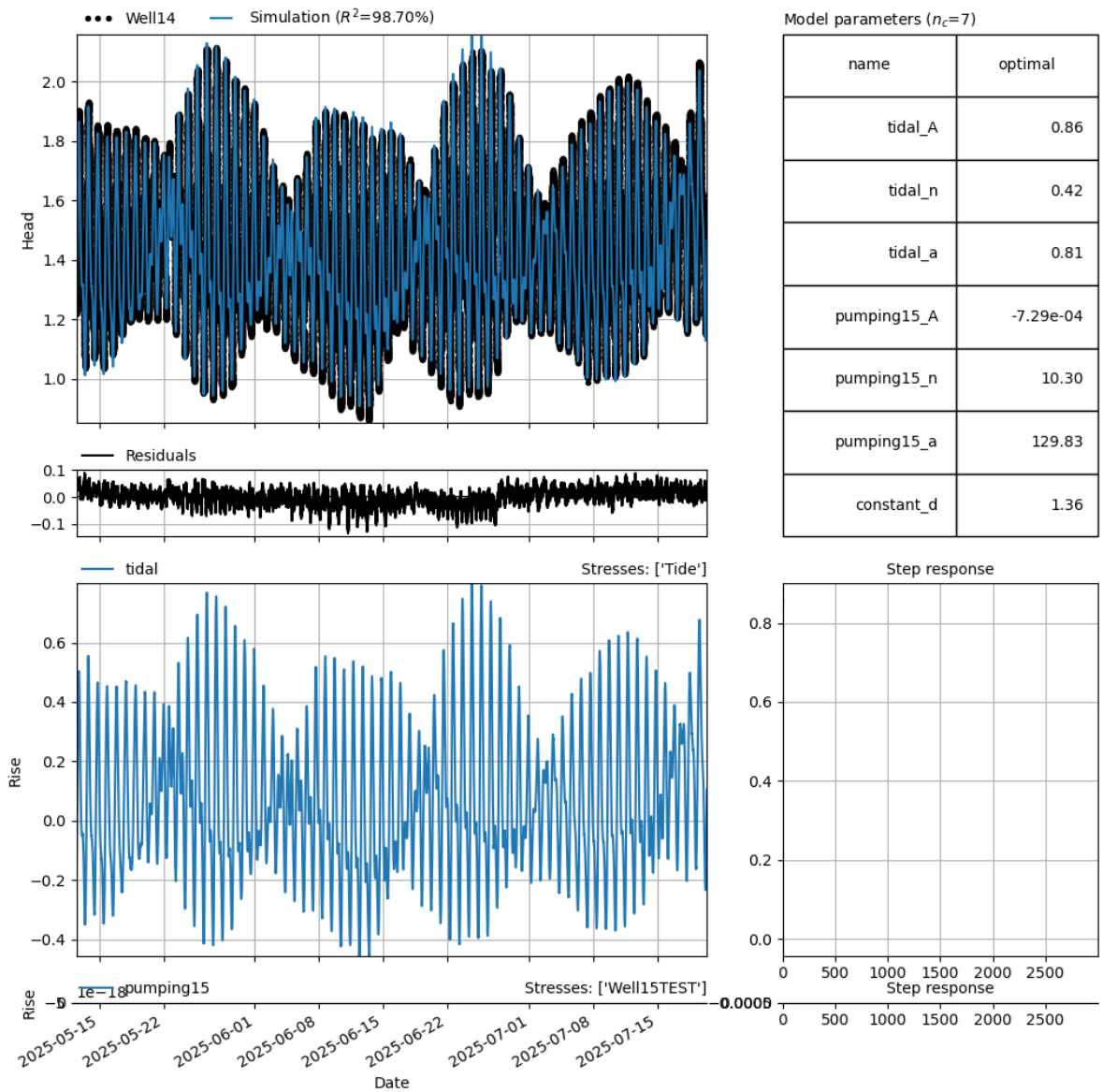


name	optimal
tidal_A	1.18
tidal_n	0.31
tidal_a	605.00
pumping14_A	-1.45e-02
pumping14_a	5264.36
pumping14_b	13.23
pumping13_A	-2.01e-03
pumping13_n	0.10
pumping13_a	1.73
tsunami_stress_a	-1.13e-02
tsunami_stress_tstart	739452.00
tsunami_stress_tend	739491.00
constant_d	0.80

Figure 5. Analysis of the full time series for Well 13, without Well 15 pumping stress included.

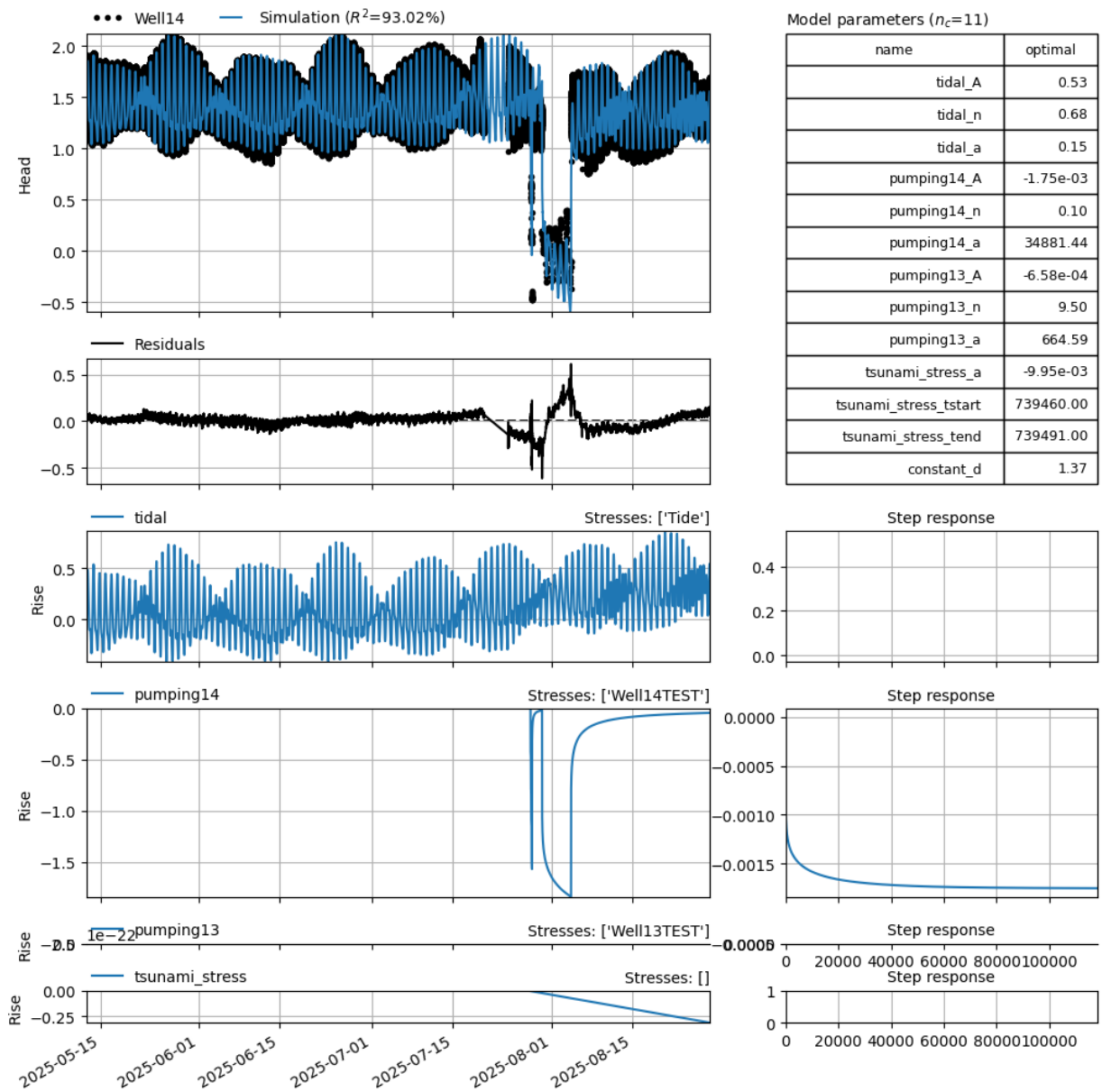
H.3.3 Well 14 Time Series Analysis

The Well 14 data was also analyzed with a truncated time series to assess impacts of the Well 15 pumping stress, and a complete time series without the Well 15 stress. In this case, the truncated analysis (Figure 5) indicates no impact on Well 14 from pumping Well 15, and leaving Well 15 stresses out of the complete series analysis is justified. The analysis of the complete time series (Figure 6) indicates no impact on Well 14 from pumping Well 13.



name	optimal
tidal_A	0.86
tidal_n	0.42
tidal_a	0.81
pumping15_A	-7.29e-04
pumping15_n	10.30
pumping15_a	129.83
constant_d	1.36

Figure 5. Analysis of the truncated time series for Well 14.



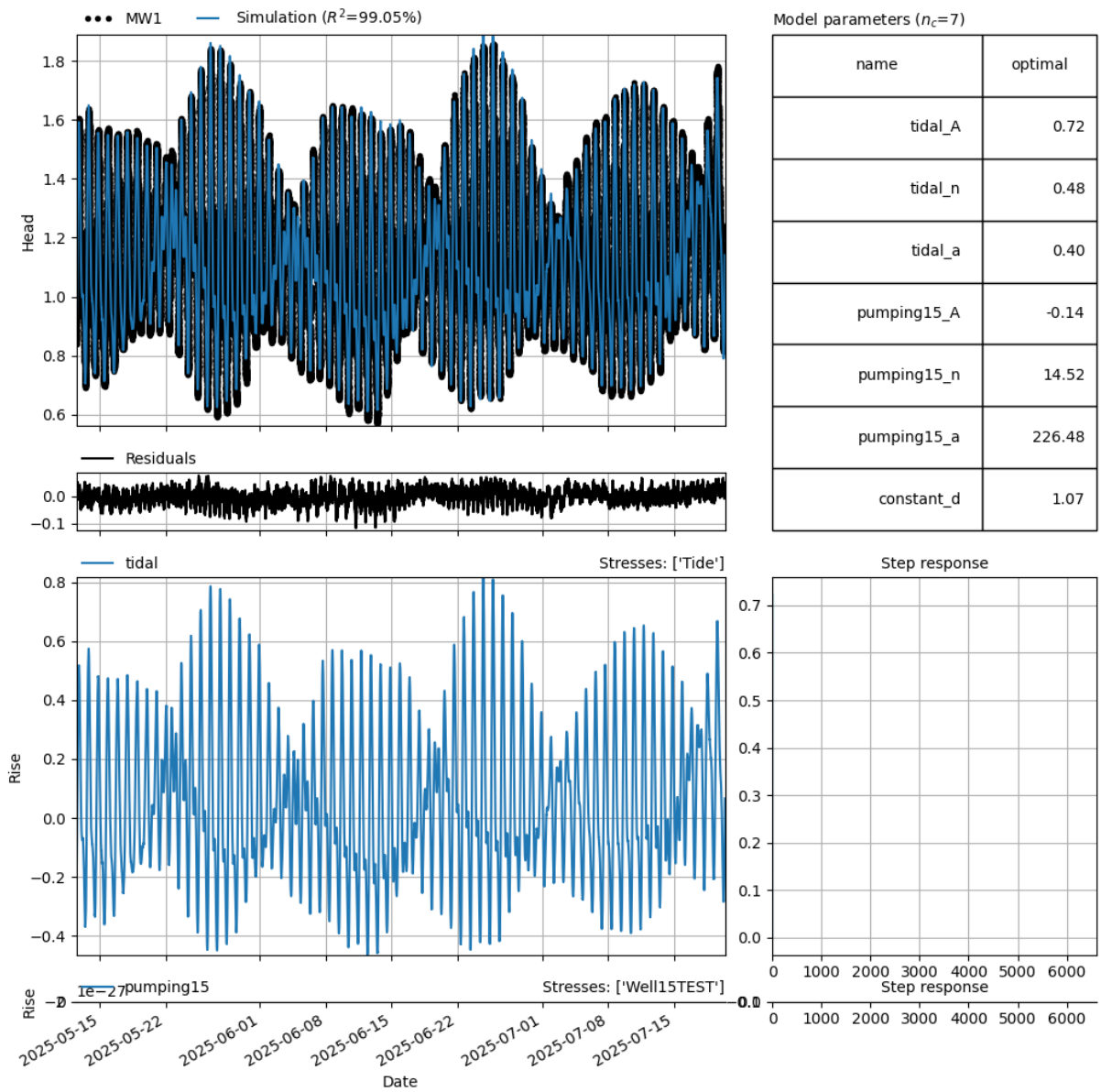
Model parameters (n_c=11)

name	optimal
tidal_A	0.53
tidal_n	0.68
tidal_a	0.15
pumping14_A	-1.75e-03
pumping14_n	0.10
pumping14_a	34881.44
pumping13_A	-6.58e-04
pumping13_n	9.50
pumping13_a	664.59
tsunami_stress_a	-9.95e-03
tsunami_stress_tstart	739460.00
tsunami_stress_tend	739491.00
constant_d	1.37

Figure 6. Analysis of the full time series for Well 14, without Well 15 pumping stress included.

H.3.4 MW 1 and MW 2 Time Series Analysis

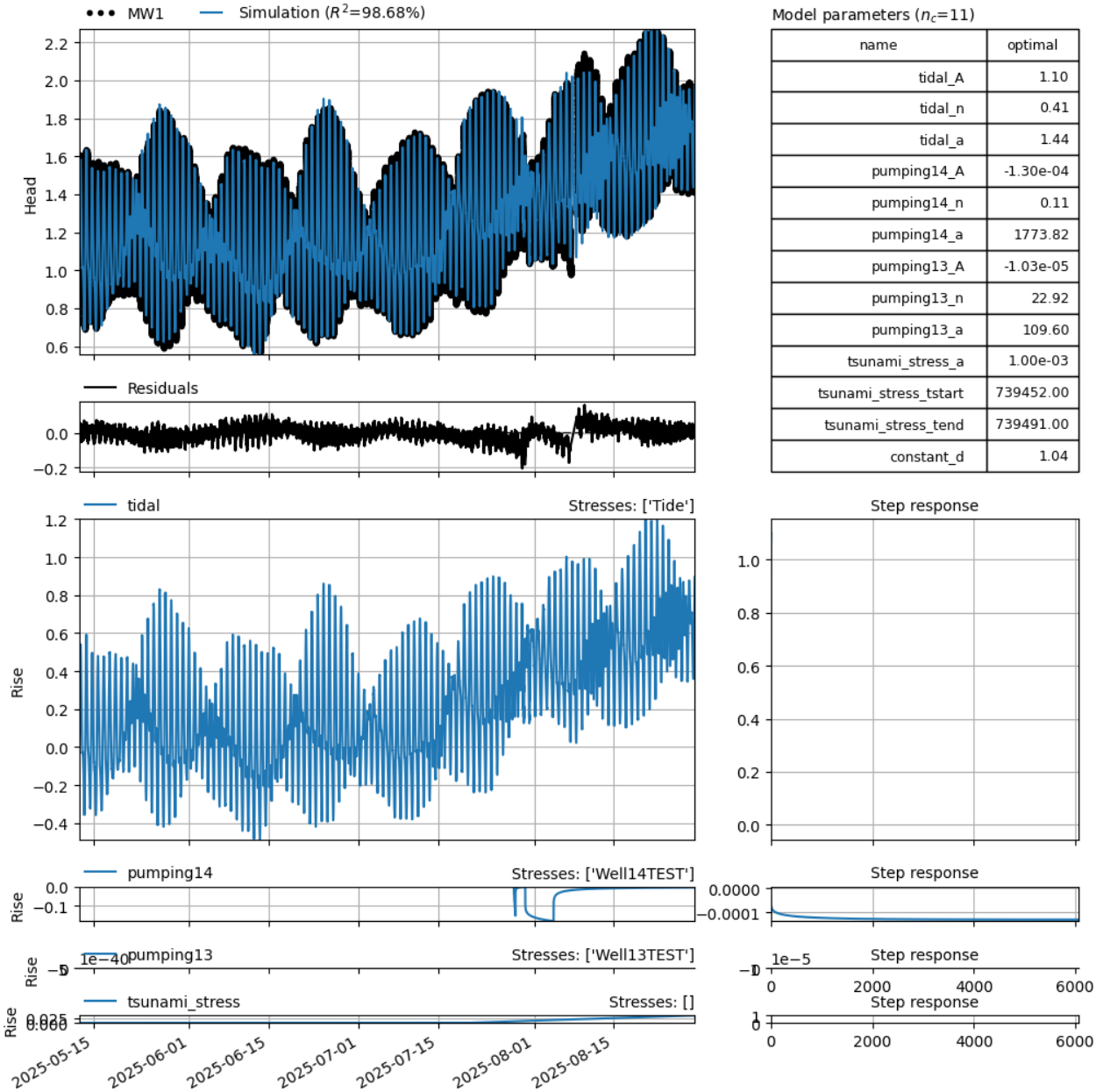
Like the analysis for Wells 13 and 14, the analysis for MW 1 and MW 2 includes a truncated series with Well 15 pumping, and an analysis of the complete series without including Well 15 pumping. Results for MW 1 and MW 2 show no impact from pumping Well 15 or Well 13, and small impacts from pumping Well 14. Results are shown in Figures 7-10 below.



Model parameters (n_c=7)

name	optimal
tidal_A	0.72
tidal_n	0.48
tidal_a	0.40
pumping15_A	-0.14
pumping15_n	14.52
pumping15_a	226.48
constant_d	1.07

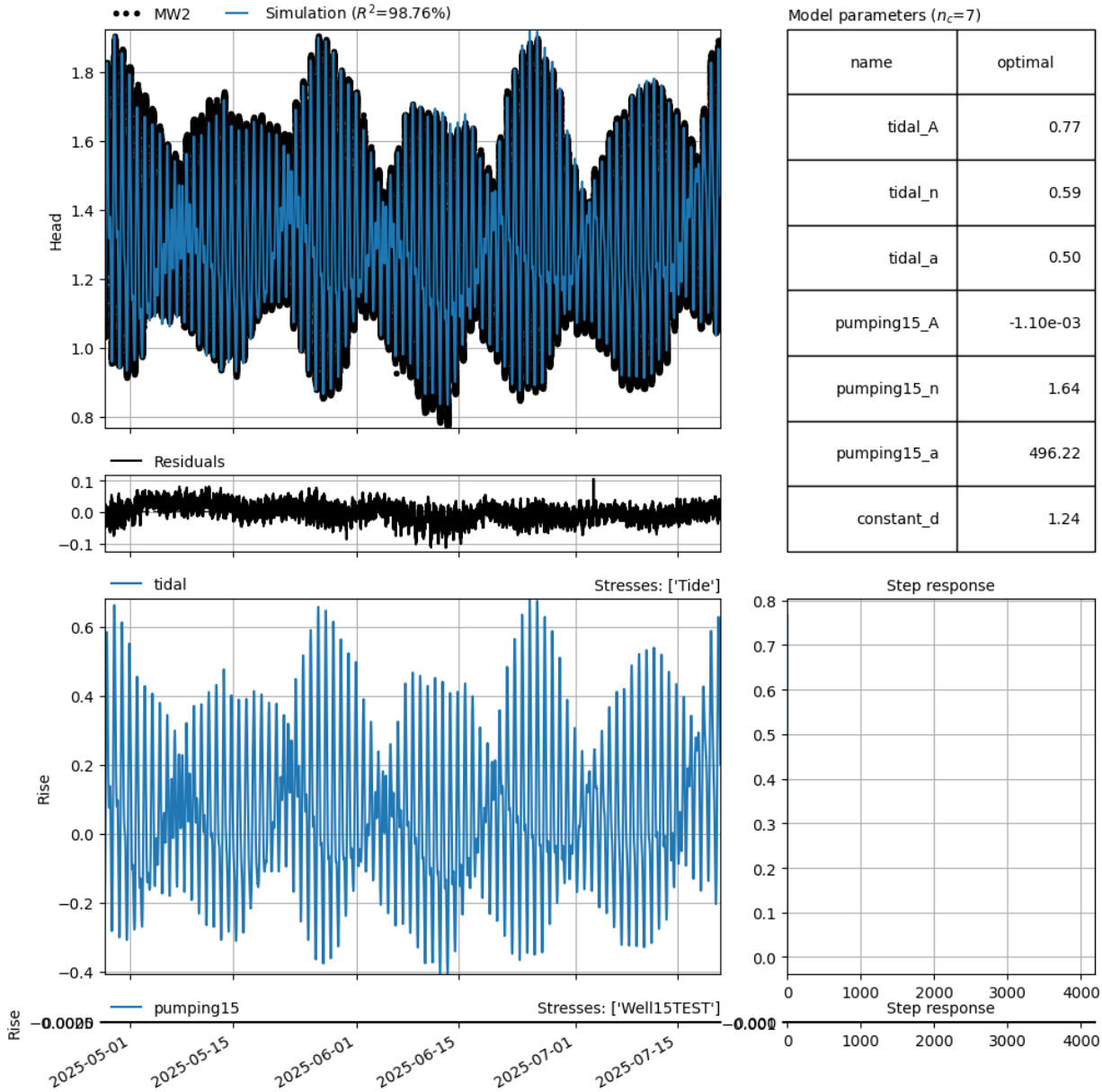
Figure 7. Analysis of the truncated time series for MW 1.



Model parameters (n_c=11)

name	optimal
tidal_A	1.10
tidal_n	0.41
tidal_a	1.44
pumping14_A	-1.30e-04
pumping14_n	0.11
pumping14_a	1773.82
pumping13_A	-1.03e-05
pumping13_n	22.92
pumping13_a	109.60
tsunami_stress_a	1.00e-03
tsunami_stress_tstart	739452.00
tsunami_stress_tend	739491.00
constant_d	1.04

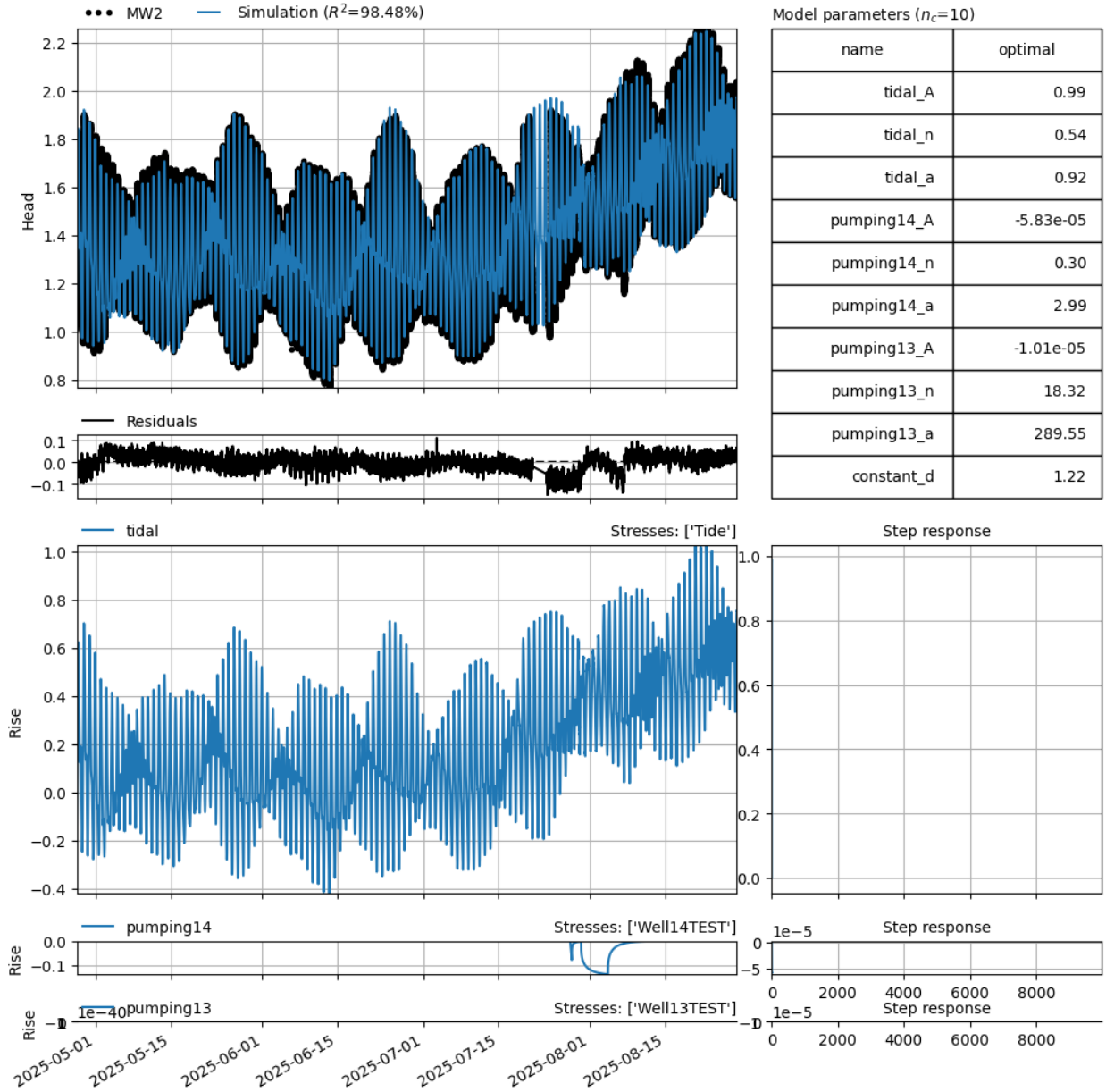
Figure 8. Analysis of the full time series for MW 1, without Well 15 pumping stress included.



Model parameters (n_c=7)

name	optimal
tidal_A	0.77
tidal_n	0.59
tidal_a	0.50
pumping15_A	-1.10e-03
pumping15_n	1.64
pumping15_a	496.22
constant_d	1.24

Figure 9. Analysis of the truncated time series for MW 2.



Model parameters (n_c=10)

name	optimal
tidal_A	0.99
tidal_n	0.54
tidal_a	0.92
pumping14_A	-5.83e-05
pumping14_n	0.30
pumping14_a	2.99
pumping13_A	-1.01e-05
pumping13_n	18.32
pumping13_a	289.55
constant_d	1.22

Figure 10. Analysis of the full time series for MW 2, without Well 15 pumping stress included. Note that no linear trend was needed in the analysis.

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APPENDIX I

Laboratory Results

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

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JOB DESCRIPTION

Kalealoa Desalination Project
MW 1

JOB NUMBER

380-162301-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Authorized for release by
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Maria.Lopez@et.eurofinsus.com
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Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 8
Client Sample Results 9
Surrogate Summary 17
Tracer Carrier Summary 20
QC Sample Results 21
QC Association Summary 51
Lab Chronicle 58
Certification Summary 60
Method Summary 63
Sample Summary 65
Chain of Custody 66
Field Data Sheets 74
Receipt Checklists 76

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
B	Analyte was found in the associated method blank.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-162301-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 7/23/2025 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 7.4°C.

Receipt Exceptions
Bottle for Sm4500_SiO2 was not received.
MW 1 (380-162301-1)

The following sample was received at the laboratory outside the required temperature criteria: MW 1 (380-162301-1). This does not meet regulatory requirements. The client was contacted regarding this issue, and the laboratory was instructed to proceed with analysis. (XWB4)

GC/MS VOA
Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-601839. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following sample was received preserved with hydrochloric acid: MW 1 (380-162301-1). The requested target analyte list contains 2-Chloroethyl vinyl ether which is an acid-labile compound that degrades in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-601826. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 625

Method 625.1: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 570-601826 and analytical batch 570-602379 recovered outside control limits for the following analyte(s): Benzidine and Hexachlorocyclopentadiene. Benzidine and Hexachlorocyclopentadiene have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-601826 and analytical batch 570-602379 recovered outside control limits for the following analytes: Benzidine and Benzoic acid.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics

Method 8015B_DRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-603849. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method: 8015B_DRO

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015C_DAI_GLY: The method blank for preparation batch 410-680235 contained Ethylene glycol above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 1640 - Dissolved: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 350-8663 and analytical batch 350-8697 were outside control limits: (380-162301-AE-1-B MS). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 6010D - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: MW 1 (380-162301-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6010D - Dissolved: The following sample was diluted due to the nature of the sample matrix: MW 1 (380-162301-1). Elevated reporting limits (RLs) are provided.

Method 6020 - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: MW 1 (380-162301-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6020 - Dissolved: The following sample was diluted due to the nature of the sample matrix: MW 1 (380-162301-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-602857.
The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-602857 and analytical batch 570-603475. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Alpha Spectroscopy
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 900.0: GAB prep batch 160-729202
Insufficient sample volume was available to preform a sample duplicate for the samples. A laboratory control sample duplicate

(LCS/LCSD) was prepared instead to demonstrate batch precision.

Method 900.0: Gross Alpha Beta Batch 729202

The detection goal was not met for the following sample due to a reduction of the sample size attributed to high residual mass: MW 1 (380-162301-1). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium-228 729204
The detection goal was not met for the following sample due to the reduced sample volume in prep attributed to the presence of matrix interferences: MW 1 (380-162301-1). Analytical results are reported with the detection limit achieved.

Method 905_Sr90: Strontium-90 Prep Batch 160-730442

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Due to matrix interference observed in the initial prep of the sample, the sample was prepared at a reduced aliquot, cooked dry, muffled in an oven, and digested to reduce organic interference before the procedure for water samples was continued.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Client Sample ID: MW 1 — Lab Sample ID: 380-162301-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
TPH as Crude Oil (C7-C44)	290		260		ug/L	1		8015B	Total/NA
Diesel Range Organics [C10-C28]	210		52		ug/L	1		8015B	Total/NA
Bromide	15		1.0		mg/L	10		300.0	Total/NA
Sulfate	680		10		mg/L	10		300.0	Total/NA
Chloride - DL	4600		200		mg/L	200		300.0	Total/NA
Mercury	2.0		0.50		ng/L	1		1631E	Dissolved
Arsenic	1.8		0.70		ug/L	1		1640	Dissolved
Copper	0.54		0.50		ug/L	1		1640	Dissolved
Lead	0.070		0.050		ug/L	1		1640	Dissolved
Barium	42		5.0		ug/L	10		1640	Dissolved
Iron	110		6.0		ug/L	1		1640	Dissolved
Manganese	120		0.50		ug/L	10		1640	Dissolved
Vanadium	13		1.0		ug/L	1		1640	Dissolved
Calcium	260		10		mg/L	5		6010D	Dissolved
Magnesium	320		2.5		mg/L	5		6010D	Dissolved
Potassium	100		10		mg/L	5		6010D	Dissolved
SiO2	38		2.7		mg/L	5		6010D	Dissolved
Sodium	2500		10		mg/L	5		6010D	Dissolved
Strontium	5.0		0.050		mg/L	5		6010D	Dissolved
HEM: Oil and Grease	1.3		0.97		mg/L	1		1664A	Total/NA
Total Kjeldahl Nitrogen	0.72		0.20		mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	21		10		mg/L	1		410.4	Total/NA
Salinity	9.4		2.0		psu	1		SM 2520B	Total/NA
Total Dissolved Solids	9000		100		mg/L	1		SM 2540C	Total/NA
Carbon, Non-Purgable Organic	1.0		0.50		mg/L	1		SM 5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Client Sample ID: MW 1

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162301-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/24/25 22:33	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/24/25 22:33	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/24/25 22:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/24/25 22:33	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/24/25 22:33	1
1,1-Dichloroethane	ND		1.0		ug/L			07/24/25 22:33	1
1,1-Dichloroethene	ND		1.0		ug/L			07/24/25 22:33	1
1,1-Dichloropropene	ND		1.0		ug/L			07/24/25 22:33	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/24/25 22:33	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/24/25 22:33	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/24/25 22:33	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/24/25 22:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/24/25 22:33	1
1,2-Dibromoethane	ND		1.0		ug/L			07/24/25 22:33	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/24/25 22:33	1
1,2-Dichloroethane	ND		0.50		ug/L			07/24/25 22:33	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/24/25 22:33	1
1,2-Dichloropropane	ND		1.0		ug/L			07/24/25 22:33	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/24/25 22:33	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/24/25 22:33	1
1,3-Dichloropropane	ND		1.0		ug/L			07/24/25 22:33	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/24/25 22:33	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/24/25 22:33	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/24/25 22:33	1
2,2-Dichloropropane	ND		1.0		ug/L			07/24/25 22:33	1
2-Butanone	ND		10		ug/L			07/24/25 22:33	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			07/24/25 22:33	1
2-Chlorotoluene	ND		1.0		ug/L			07/24/25 22:33	1
2-Hexanone	ND		10		ug/L			07/24/25 22:33	1
4-Chlorotoluene	ND		1.0		ug/L			07/24/25 22:33	1
4-Methyl-2-pentanone	ND		10		ug/L			07/24/25 22:33	1
Acetone	ND		12		ug/L			07/24/25 22:33	1
Benzene	ND		0.50		ug/L			07/24/25 22:33	1
Bromobenzene	ND		1.0		ug/L			07/24/25 22:33	1
Bromochloromethane	ND		1.0		ug/L			07/24/25 22:33	1
Bromodichloromethane	ND		1.0		ug/L			07/24/25 22:33	1
Bromoform	ND		1.0		ug/L			07/24/25 22:33	1
Bromomethane	ND		5.0		ug/L			07/24/25 22:33	1
Carbon disulfide	ND		10		ug/L			07/24/25 22:33	1
Carbon tetrachloride	ND		0.50		ug/L			07/24/25 22:33	1
Chlorobenzene	ND		1.0		ug/L			07/24/25 22:33	1
Chloroethane	ND		1.0		ug/L			07/24/25 22:33	1
Chloroform	ND		1.0		ug/L			07/24/25 22:33	1
Chloromethane	ND		1.0		ug/L			07/24/25 22:33	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/24/25 22:33	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/24/25 22:33	1
Dibromochloromethane	ND		1.0		ug/L			07/24/25 22:33	1
Dibromomethane	ND		1.0		ug/L			07/24/25 22:33	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/24/25 22:33	1

Client Sample ID: MW 1
Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162301-1
Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/24/25 22:33	1
Ethanol	ND		100		ug/L			07/24/25 22:33	1
Ethylbenzene	ND		1.0		ug/L			07/24/25 22:33	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			07/24/25 22:33	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/24/25 22:33	1
Isopropanol	ND		50		ug/L			07/24/25 22:33	1
Isopropylbenzene	ND		1.0		ug/L			07/24/25 22:33	1
m,p-Xylene	ND		1.0		ug/L			07/24/25 22:33	1
Methylene Chloride	ND		2.0		ug/L			07/24/25 22:33	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			07/24/25 22:33	1
Naphthalene	ND		10		ug/L			07/24/25 22:33	1
n-Butylbenzene	ND		1.0		ug/L			07/24/25 22:33	1
N-Propylbenzene	ND		1.0		ug/L			07/24/25 22:33	1
o-Xylene	ND		1.0		ug/L			07/24/25 22:33	1
p-Isopropyltoluene	ND		1.0		ug/L			07/24/25 22:33	1
sec-Butylbenzene	ND		1.0		ug/L			07/24/25 22:33	1
Styrene	ND		1.0		ug/L			07/24/25 22:33	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			07/24/25 22:33	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			07/24/25 22:33	1
tert-Butylbenzene	ND		1.0		ug/L			07/24/25 22:33	1
Tetrachloroethene	ND		1.0		ug/L			07/24/25 22:33	1
Tetrahydrofuran	ND		10		ug/L			07/24/25 22:33	1
Toluene	ND		1.0		ug/L			07/24/25 22:33	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/24/25 22:33	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/24/25 22:33	1
Trichloroethene	ND		1.0		ug/L			07/24/25 22:33	1
Trichlorofluoromethane	ND		5.0		ug/L			07/24/25 22:33	1
Trihalomethanes, Total	ND		1.0		ug/L			07/24/25 22:33	1
Vinyl acetate	ND		10		ug/L			07/24/25 22:33	1
Vinyl chloride	ND		0.50		ug/L			07/24/25 22:33	1
Xylenes, Total	ND		1.0		ug/L			07/24/25 22:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*07/24/25 22:33*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*07/24/25 22:33*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*07/24/25 22:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*60 - 140*		*07/24/25 22:33*	*1*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*07/24/25 22:33*	*1*
Dibromofluoromethane	*104*		*60 - 140*		*07/24/25 22:33*	*1*
Toluene-d8 (Surr)	*102*		*60 - 140*		*07/24/25 22:33*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		07/29/25 07:35	07/29/25 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*79*		*30 - 187*	*07/29/25 07:35*	*07/29/25 22:11*	*1*
Benzo(a)pyrene-d12 (Surr)	*73*		*32 - 194*	*07/29/25 07:35*	*07/29/25 22:11*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Client Sample ID: MW 1

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162301-1

Matrix: Water

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Methylnaphthalene-d10	*62*		*45 - 130*	*07/29/25 07:35*	*07/29/25 22:11*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
1,2-Dichlorobenzene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
1,3-Dichlorobenzene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
1,4-Dichlorobenzene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
1-Methylnaphthalene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2,4,5-Trichlorophenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2,4,6-Trichlorophenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2,4-Dichlorophenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2,4-Dimethylphenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2,4-Dinitrophenol	ND		48	ug/L		07/25/25 08:31	07/30/25 22:43	1
2,4-Dinitrotoluene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2,6-Dichlorophenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2,6-Dinitrotoluene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2-Chloronaphthalene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2-Chlorophenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2-Methylnaphthalene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2-Methylphenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2-Nitroaniline	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
2-Nitrophenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
3,3'-Dichlorobenzidine	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
3/4-Methylphenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
3-Nitroaniline	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
4,6-Dinitro-2-methylphenol	ND		48	ug/L		07/25/25 08:31	07/30/25 22:43	1
4-Bromophenyl phenyl ether	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
4-Chloro-3-methylphenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
4-Chloroaniline	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
4-Chlorophenyl phenyl ether	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
4-Nitroaniline	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
4-Nitrophenol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Acenaphthene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Acenaphthylene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Acetophenone	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Alpha-Terpineol	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Aniline	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Anthracene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Azobenzene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Benzidine	ND	*1 *-	48	ug/L		07/25/25 08:31	07/30/25 22:43	1
Benzo[a]anthracene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Benzo[a]pyrene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Benzo[b]fluoranthene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Benzo[g,h,i]perylene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Benzo[k]fluoranthene	ND		9.6	ug/L		07/25/25 08:31	07/30/25 22:43	1
Benzoic acid	ND	*1	48	ug/L		07/25/25 08:31	07/30/25 22:43	1

Client Sample ID: MW 1

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162301-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzyl alcohol	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Bis (2-chloroethoxy) methane	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
bis (2-chloroisopropyl) ether	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Bis(2-chloroethyl)ether	ND		24		ug/L		07/25/25 08:31	07/30/25 22:43	1
Bis(2-ethylhexyl) phthalate	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Butyl benzyl phthalate	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Carbazole	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Chrysene	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Dibenz(a,h)anthracene	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Dibenzofuran	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Diethyl phthalate	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Dimethyl phthalate	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Di-n-butyl phthalate	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Di-n-octyl phthalate	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Fluoranthene	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Fluorene	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Hexachloro-1,3-butadiene	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Hexachlorobenzene	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Hexachlorocyclopentadiene	ND	*-	24		ug/L		07/25/25 08:31	07/30/25 22:43	1
Hexachloroethane	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Indeno[1,2,3-cd]pyrene	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Isophorone	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Naphthalene	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
n-Decane	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Nitrobenzene	ND		24		ug/L		07/25/25 08:31	07/30/25 22:43	1
N-Nitrosodimethylamine	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
N-Nitrosodi-n-propylamine	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
N-Nitrosodiphenylamine	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
n-Octadecane	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Pentachlorophenol	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Phenanthrene	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Phenol	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Pyrene	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1
Pyridine	ND		9.6		ug/L		07/25/25 08:31	07/30/25 22:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*07/25/25 08:31*	*07/30/25 22:43*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*07/25/25 08:31*	*07/30/25 22:43*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*07/25/25 08:31*	*07/30/25 22:43*	*1*
2,3,7,8-TCDD TIC	*ND*		*ug/L*			*1746-01-6*	*07/25/25 08:31*	*07/30/25 22:43*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*07/25/25 08:31*	*07/30/25 22:43*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*07/25/25 08:31*	*07/30/25 22:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*103*		*33 - 139*	*07/25/25 08:31*	*07/30/25 22:43*	*1*
2-Fluorobiphenyl (Surr)	*83*		*33 - 126*	*07/25/25 08:31*	*07/30/25 22:43*	*1*
2-Fluorophenol (Surr)	*38*		*12 - 120*	*07/25/25 08:31*	*07/30/25 22:43*	*1*
Nitrobenzene-d5 (Surr)	*70*		*36 - 120*	*07/25/25 08:31*	*07/30/25 22:43*	*1*
Phenol-d6 (Surr)	*31*		*10 - 120*	*07/25/25 08:31*	*07/30/25 22:43*	*1*
p-Terphenyl-d14 (Surr)	*94*		*47 - 131*	*07/25/25 08:31*	*07/30/25 22:43*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Client Sample ID: MW 1

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162301-1

Matrix: Water

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			08/02/25 23:54	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			08/02/25 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*20 - 144*		*08/02/25 23:54*	*1*

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.010	ug/L		07/25/25 10:39	08/06/25 23:12	1
4,4'-DDE	ND		0.0051	ug/L		07/25/25 10:39	08/06/25 23:12	1
4,4'-DDT	ND		0.0051	ug/L		07/25/25 10:39	08/06/25 23:12	1
Aldrin	ND		0.0051	ug/L		07/25/25 10:39	08/06/25 23:12	1
alpha-BHC	ND		0.0020	ug/L		07/25/25 10:39	08/06/25 23:12	1
alpha-Chlordane	ND		0.051	ug/L		07/25/25 10:39	08/06/25 23:12	1
beta-BHC	ND		0.0076	ug/L		07/25/25 10:39	08/06/25 23:12	1
Chlordane	ND		0.051	ug/L		07/25/25 10:39	08/06/25 23:12	1
delta-BHC	ND		0.0051	ug/L		07/25/25 10:39	08/06/25 23:12	1
Dieldrin	ND		0.0051	ug/L		07/25/25 10:39	08/06/25 23:12	1
Endosulfan I	ND		0.0020	ug/L		07/25/25 10:39	08/06/25 23:12	1
Endosulfan II	ND		0.010	ug/L		07/25/25 10:39	08/06/25 23:12	1
Endosulfan sulfate	ND		0.0051	ug/L		07/25/25 10:39	08/06/25 23:12	1
Endrin	ND		0.0051	ug/L		07/25/25 10:39	08/06/25 23:12	1
Endrin aldehyde	ND		0.051	ug/L		07/25/25 10:39	08/06/25 23:12	1
Endrin ketone	ND		0.0051	ug/L		07/25/25 10:39	08/06/25 23:12	1
gamma-BHC (Lindane)	ND		0.0020	ug/L		07/25/25 10:39	08/06/25 23:12	1
gamma-Chlordane	ND		0.015	ug/L		07/25/25 10:39	08/06/25 23:12	1
Heptachlor	ND		0.0020	ug/L		07/25/25 10:39	08/06/25 23:12	1
Heptachlor epoxide	ND		0.010	ug/L		07/25/25 10:39	08/06/25 23:12	1
Methoxychlor	ND		0.010	ug/L		07/25/25 10:39	08/06/25 23:12	1
Toxaphene	ND		0.10	ug/L		07/25/25 10:39	08/06/25 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*80*		*20 - 154*	*07/25/25 10:39*	*08/06/25 23:12*	*1*
Tetrachloro-m-xylene (Surr)	*69*		*20 - 139*	*07/25/25 10:39*	*08/06/25 23:12*	*1*

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.10	ug/L		07/25/25 10:39	07/29/25 15:44	1
Aroclor-1221	ND		0.10	ug/L		07/25/25 10:39	07/29/25 15:44	1
Aroclor-1232	ND		0.10	ug/L		07/25/25 10:39	07/29/25 15:44	1
Aroclor-1242	ND		0.10	ug/L		07/25/25 10:39	07/29/25 15:44	1
Aroclor-1248	ND		0.10	ug/L		07/25/25 10:39	07/29/25 15:44	1
Aroclor-1254	ND		0.10	ug/L		07/25/25 10:39	07/29/25 15:44	1
Aroclor-1260	ND		0.10	ug/L		07/25/25 10:39	07/29/25 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*128*		*20 - 154*	*07/25/25 10:39*	*07/29/25 15:44*	*1*
Tetrachloro-m-xylene (Surr)	*60*		*20 - 139*	*07/25/25 10:39*	*07/29/25 15:44*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Client Sample ID: MW 1

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162301-1

Matrix: Water

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		07/28/25 23:29	07/29/25 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*102*		*46 - 136*	*07/28/25 23:29*	*07/29/25 13:37*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*97*		*46 - 136*	*07/28/25 23:29*	*07/29/25 13:37*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	**290**		260	ug/L		07/29/25 09:24	08/06/25 18:51	1
Diesel Range Organics [C10-C28]	**210**		52	ug/L		07/29/25 09:24	08/06/25 18:51	1
C24-C44	ND		260	ug/L		07/29/25 09:24	08/06/25 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*114*		*53 - 151*	*07/29/25 09:24*	*08/06/25 18:51*	*1*
n-Octacosane (Surr)	*114*		*53 - 151*	*07/29/25 09:24*	*08/06/25 18:51*	*1*

Method: SW846 8015C - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND	B	13	mg/L		08/04/25 10:29	08/04/25 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*64*		*10 - 130*	*08/04/25 10:29*	*08/04/25 18:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**15**		1.0	mg/L			07/29/25 08:01	10
Fluoride	ND		1.0	mg/L			07/29/25 08:01	10
Sulfate	**680**		10	mg/L			07/29/25 08:01	10

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4600**		200	mg/L			07/29/25 09:02	200

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**2.0**		0.50	ng/L			07/28/25 15:40	1

Method: EPA 1640 - Metals (ICPMS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.8**		0.70	ug/L		08/06/25 00:00	08/07/25 00:42	1
Cadmium	ND		0.020	ug/L		08/06/25 00:00	08/07/25 00:42	1
Chromium	ND		1.0	ug/L		08/06/25 00:00	08/07/25 00:42	1
Copper	**0.54**		0.50	ug/L		08/06/25 00:00	08/07/25 00:42	1
Lead	**0.070**		0.050	ug/L		08/06/25 00:00	08/07/25 00:42	1
Silver	ND		1.0	ug/L		08/06/25 00:00	08/07/25 00:42	1
Zinc	ND		1.0	ug/L		08/06/25 00:00	08/07/25 00:42	1
Aluminum	ND		5.0	ug/L		08/06/25 00:00	08/07/25 00:42	1
Barium	**42**		5.0	ug/L		08/06/25 00:00	08/07/25 10:35	10
Iron	**110**		6.0	ug/L		08/11/25 00:00	08/12/25 00:51	1
Manganese	**120**		0.50	ug/L		08/06/25 00:00	08/07/25 10:35	10
Selenium	ND		0.70	ug/L		08/06/25 00:00	08/07/25 00:42	1
Vanadium	**13**		1.0	ug/L		08/06/25 00:00	08/07/25 00:42	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Client Sample ID: MW 1

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162301-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**260**		10		mg/L			08/06/25 15:33	5
Iron	ND		2.5		mg/L			08/06/25 15:33	5
Lithium	ND		0.25		mg/L			08/06/25 15:33	5
Magnesium	**320**		2.5		mg/L			08/06/25 15:33	5
Potassium	**100**		10		mg/L			08/06/25 15:33	5
SiO2	**38**		2.7		mg/L			08/06/25 15:33	5
Sodium	**2500**		10		mg/L			08/06/25 15:33	5
Strontium	**5.0**		0.050		mg/L			08/06/25 15:33	5

Method: SW846 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		20		ug/L			08/05/25 17:19	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	**1.3**		0.97		mg/L		07/26/25 11:02	07/28/25 13:49	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.72**		0.20		mg/L		08/01/25 12:27	08/04/25 15:26	1
Chemical Oxygen Demand (EPA 410.4)	**21**		10		mg/L		08/03/25 08:40	08/03/25 08:20	1
Alkalinity, Total (As CaCO3) (SM 2320B)	ND		5.0		mg/L			08/04/25 19:48	1
Bicarbonate (as CaCO3) (SM 2320B)	ND		5.0		mg/L			08/04/25 19:48	1
Carbonate (as CaCO3) (SM 2320B)	ND		5.0		mg/L			08/04/25 19:48	1
Hydroxide (as CaCO3) (SM 2320B)	ND		5.0		mg/L			08/04/25 19:48	1
Salinity (SM 2520B)	**9.4**		2.0		psu			08/11/25 14:18	1
Total Dissolved Solids (SM 2540C)	**9000**		100		mg/L			07/28/25 21:14	1
Carbon, Non-Purgable Organic (SM 5310C)	**1.0**		0.50		mg/L			08/18/25 20:01	1

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	43.0	U G	30.0	30.3	4.00	46.8	pCi/L	07/28/25 07:56	07/29/25 18:19	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.84**		0.637	0.659	1.00	0.679	pCi/L	07/28/25 08:03	08/19/25 21:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*30 - 110*	*07/28/25 08:03*	*08/19/25 21:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.171	U G	0.625	0.625	1.00	1.12	pCi/L	07/28/25 08:06	08/19/25 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*30 - 110*	*07/28/25 08:06*	*08/19/25 11:57*	*1*

Client Sample ID: MW 1

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162301-1

Matrix: Water

Method: EPA 904.0 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	84.1		30 - 110	07/28/25 08:06	08/19/25 11:57	1

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.357	U	1.75	1.75	3.00	1.87	pCi/L	08/04/25 11:23	08/18/25 15:05	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Sr Carrier	62.9		30 - 110	08/04/25 11:23	08/18/25 15:05	1
Y Carrier	96.1		30 - 110	08/04/25 11:23	08/18/25 15:05	1

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.01**		0.892	0.908	5.00	1.12	pCi/L		08/20/25 12:37	1

Method: SM7110C - Gross Alpha by Co-Precipitation

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	**4.23**		1.39	1.47	3.00	0.836	pCi/L	08/06/25 08:27	08/07/25 15:36	1

Method: HASL U-02-RC - Uranium, Method U02

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Uranium-234	**0.684**		0.282	0.288	1.00	0.135	pCi/L	08/05/25 13:07	08/10/25 12:04	1
Uranium-235	0.0621	U	0.0977	0.0978	1.00	0.139	pCi/L	08/05/25 13:07	08/10/25 12:04	1
Uranium-238	**0.407**		0.213	0.216	1.00	0.111	pCi/L	08/05/25 13:07	08/10/25 12:04	1
Total Uranium	**1.15**		0.367	0.373	1.00	0.139	pCi/L	08/05/25 13:07	08/10/25 12:04	1

Tracer	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Uranium-232	68.1		30 - 110	08/05/25 13:07	08/10/25 12:04	1

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
380-162301-1	MW 1	107	99	104	102
LCS 570-601839/1002	Lab Control Sample	110	101	104	100
LCSD 570-601839/3	Lab Control Sample Dup	113	100	105	101
MB 570-601839/6	Method Blank	108	94	106	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-162301-1	MW 1	103	83	38	70	31	94
LCS 570-601826/2-A	Lab Control Sample	103	94	54	87	35	100
LCSD 570-601826/3-A	Lab Control Sample Dup	103	87	57	84	38	104
MB 570-601826/1-A	Method Blank	97	96	53	88	32	91

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FLN10	BAPd12	MNPd10
Lab Sample ID	Client Sample ID	(30-187)	(32-194)	(45-130)
380-162301-1	MW 1	79	73	62
LCS 410-677485/2-A	Lab Control Sample	77	76	57
LCSD 410-677485/3-A	Lab Control Sample Dup	67	68	57
MB 410-677485/1-A	Method Blank	72	68	56

Surrogate Legend

FLN10 = Fluoranthene-d10 (Surr)
BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB1 (20-144)							
380-162301-1	MW 1	87							
LCS 570-606201/35	Lab Control Sample	91							
LCSD 570-606201/36	Lab Control Sample Dup	90							
MB 570-606201/37	Method Blank	87							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB2 (20-154)	TCX1 (20-139)						
LCS 570-602264/2-A	Lab Control Sample	82	63						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB2 (20-154)	TCX2 (20-139)						
LCSD 570-602264/3-A	Lab Control Sample Dup	76	59						
MB 570-602264/1-A	Method Blank	86	69						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX2 (20-139)						
380-162301-1	MW 1	80	69						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)						
380-162301-1	MW 1	128	60						
LCS 570-602264/4-A	Lab Control Sample	89	64						
LCSD 570-602264/5-A	Lab Control Sample Dup	94	63						

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)
MB 570-602264/1-A	Method Blank	97	66

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)
380-162301-1	MW 1	102	97
LCS 410-677413/2-A	Lab Control Sample	105	102
LCSD 410-677413/3-A	Lab Control Sample Dup	105	103
MB 410-677413/1-A	Method Blank	103	100

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	OTCSN1 (53-151)	OTCSN1 (53-151)
380-162301-1	MW 1	114	114
LCS 570-603849/2-A	Lab Control Sample	111	111
LCS 570-603849/4-A	Lab Control Sample	100	100
LCSD 570-603849/3-A	Lab Control Sample Dup	101	101
LCSD 570-603849/5-A	Lab Control Sample Dup	110	110
MB 570-603849/1-A	Method Blank	104	104

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015C - Glycols- Direct Injection (GC/FID)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	14BD1 (10-130)
380-162301-1	MW 1	64
LCS 410-680235/2-A	Lab Control Sample	90
MB 410-680235/1-A	Method Blank	76

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

14BD = 1,4-Butanediol

Tracer/Carrier Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba (30-110)							
380-162301-1	MW 1	92.9							
LCS 160-729203/2-A	Lab Control Sample	88.4							
MB 160-729203/1-A	Method Blank	87.2							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)						
380-162301-1	MW 1	92.9	84.1						
LCS 160-729204/2-A	Lab Control Sample	88.4	81.1						
MB 160-729204/1-A	Method Blank	87.2	74.8						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)						
380-162301-1	MW 1	62.9	96.1						
LCS 160-730442/2-A	Lab Control Sample	81.4	96.8						
LCSD 160-730442/3-A	Lab Control Sample Dup	84.7	93.5						
MB 160-730442/1-A	Method Blank	79.3	93.5						

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: U-02-RC - Uranium, Method U02

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	U-232 (30-110)							
380-162301-1	MW 1	68.1							
LCS 160-730590/2-A	Lab Control Sample	70.6							
MB 160-730590/1-A	Method Blank	75.7							

Tracer/Carrier Legend

U-232 = Uranium-232

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-601839/6
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/24/25 18:38	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/24/25 18:38	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/24/25 18:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/24/25 18:38	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/24/25 18:38	1
1,1-Dichloroethane	ND		1.0		ug/L			07/24/25 18:38	1
1,1-Dichloroethene	ND		1.0		ug/L			07/24/25 18:38	1
1,1-Dichloropropene	ND		1.0		ug/L			07/24/25 18:38	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/24/25 18:38	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/24/25 18:38	1
1,2-Dibromoethane	ND		1.0		ug/L			07/24/25 18:38	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,2-Dichloroethane	ND		0.50		ug/L			07/24/25 18:38	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/24/25 18:38	1
1,2-Dichloropropane	ND		1.0		ug/L			07/24/25 18:38	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,3-Dichloropropane	ND		1.0		ug/L			07/24/25 18:38	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/24/25 18:38	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/24/25 18:38	1
2,2-Dichloropropane	ND		1.0		ug/L			07/24/25 18:38	1
2-Butanone	ND		10		ug/L			07/24/25 18:38	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			07/24/25 18:38	1
2-Chlorotoluene	ND		1.0		ug/L			07/24/25 18:38	1
2-Hexanone	ND		10		ug/L			07/24/25 18:38	1
4-Chlorotoluene	ND		1.0		ug/L			07/24/25 18:38	1
4-Methyl-2-pentanone	ND		10		ug/L			07/24/25 18:38	1
Acetone	ND		12		ug/L			07/24/25 18:38	1
Benzene	ND		0.50		ug/L			07/24/25 18:38	1
Bromobenzene	ND		1.0		ug/L			07/24/25 18:38	1
Bromochloromethane	ND		1.0		ug/L			07/24/25 18:38	1
Bromodichloromethane	ND		1.0		ug/L			07/24/25 18:38	1
Bromoform	ND		1.0		ug/L			07/24/25 18:38	1
Bromomethane	ND		5.0		ug/L			07/24/25 18:38	1
Carbon disulfide	ND		10		ug/L			07/24/25 18:38	1
Carbon tetrachloride	ND		0.50		ug/L			07/24/25 18:38	1
Chlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
Chloroethane	ND		1.0		ug/L			07/24/25 18:38	1
Chloroform	ND		1.0		ug/L			07/24/25 18:38	1
Chloromethane	ND		1.0		ug/L			07/24/25 18:38	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/24/25 18:38	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/24/25 18:38	1
Dibromochloromethane	ND		1.0		ug/L			07/24/25 18:38	1
Dibromomethane	ND		1.0		ug/L			07/24/25 18:38	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-601839/6
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			07/24/25 18:38	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/24/25 18:38	1
Ethanol	ND		100		ug/L			07/24/25 18:38	1
Ethylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			07/24/25 18:38	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/24/25 18:38	1
Isopropanol	ND		50		ug/L			07/24/25 18:38	1
Isopropylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
m,p-Xylene	ND		1.0		ug/L			07/24/25 18:38	1
Methylene Chloride	ND		2.0		ug/L			07/24/25 18:38	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			07/24/25 18:38	1
Naphthalene	ND		10		ug/L			07/24/25 18:38	1
n-Butylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
N-Propylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
o-Xylene	ND		1.0		ug/L			07/24/25 18:38	1
p-Isopropyltoluene	ND		1.0		ug/L			07/24/25 18:38	1
sec-Butylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
Styrene	ND		1.0		ug/L			07/24/25 18:38	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			07/24/25 18:38	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			07/24/25 18:38	1
tert-Butylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
Tetrachloroethene	ND		1.0		ug/L			07/24/25 18:38	1
Tetrahydrofuran	ND		10		ug/L			07/24/25 18:38	1
Toluene	ND		1.0		ug/L			07/24/25 18:38	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/24/25 18:38	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/24/25 18:38	1
Trichloroethene	ND		1.0		ug/L			07/24/25 18:38	1
Trichlorofluoromethane	ND		5.0		ug/L			07/24/25 18:38	1
Trihalomethanes, Total	ND		1.0		ug/L			07/24/25 18:38	1
Vinyl acetate	ND		10		ug/L			07/24/25 18:38	1
Vinyl chloride	ND		0.50		ug/L			07/24/25 18:38	1
Xylenes, Total	ND		1.0		ug/L			07/24/25 18:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*60 - 140*		*07/24/25 18:38*	*1*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*07/24/25 18:38*	*1*
Dibromofluoromethane	*106*		*60 - 140*		*07/24/25 18:38*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*07/24/25 18:38*	*1*

Lab Sample ID: LCS 570-601839/1002
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			20.0	21.5		ug/L		108	60 - 140		
1,1,1-Trichloroethane			20.0	21.6		ug/L		108	70 - 130		
1,1,2,2-Tetrachloroethane			20.0	20.4		ug/L		102	60 - 140		
1,1,2-Trichloro-1,2,2-trifluoroetha ne			20.0	20.6		ug/L		103	60 - 140		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-601839/1002
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	20.0	21.6		ug/L		108	70 - 130
1,1-Dichloroethane	20.0	21.7		ug/L		108	70 - 130
1,1-Dichloroethene	20.0	22.2		ug/L		111	50 - 150
1,1-Dichloropropene	20.0	21.1		ug/L		106	60 - 140
1,2,3-Trichlorobenzene	20.0	19.6		ug/L		98	60 - 140
1,2,3-Trichloropropane	20.0	23.1		ug/L		116	60 - 140
1,2,4-Trichlorobenzene	20.0	19.0		ug/L		95	60 - 140
1,2,4-Trimethylbenzene	20.0	20.4		ug/L		102	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	22.7		ug/L		114	60 - 140
1,2-Dibromoethane	20.0	21.3		ug/L		107	60 - 140
1,2-Dichlorobenzene	20.0	20.4		ug/L		102	65 - 135
1,2-Dichloroethane	20.0	21.9		ug/L		109	70 - 130
1,2-Dichloropropane	20.0	21.6		ug/L		108	35 - 165
1,3,5-Trimethylbenzene	20.0	20.9		ug/L		104	60 - 140
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	70 - 130
1,3-Dichloropropane	20.0	21.2		ug/L		106	60 - 140
1,4-Dichlorobenzene	20.0	19.9		ug/L		100	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	21.1		ug/L		105	60 - 140
2,2-Dichloropropane	20.0	20.6		ug/L		103	60 - 140
2-Butanone	20.0	19.4		ug/L		97	60 - 140
2-Chloroethyl vinyl ether	20.0	19.7		ug/L		99	1 - 225
2-Chlorotoluene	20.0	20.9		ug/L		104	60 - 140
2-Hexanone	20.0	16.1		ug/L		80	60 - 140
4-Chlorotoluene	20.0	20.3		ug/L		101	60 - 140
4-Methyl-2-pentanone	20.0	18.1		ug/L		91	60 - 140
Acetone	20.0	21.5		ug/L		108	60 - 140
Benzene	20.0	21.2		ug/L		106	65 - 135
Bromobenzene	20.0	20.5		ug/L		103	60 - 140
Bromochloromethane	20.0	22.6		ug/L		113	60 - 140
Bromodichloromethane	20.0	21.6		ug/L		108	65 - 135
Bromoform	20.0	20.6		ug/L		103	70 - 130
Bromomethane	20.0	18.9		ug/L		95	15 - 185
Carbon disulfide	20.0	22.0		ug/L		110	60 - 140
Carbon tetrachloride	20.0	22.6		ug/L		113	70 - 130
Chlorobenzene	20.0	20.5		ug/L		103	65 - 135
Chloroethane	20.0	20.3		ug/L		101	40 - 160
Chloroform	20.0	21.5		ug/L		107	70 - 135
Chloromethane	20.0	19.8		ug/L		99	1 - 205
cis-1,2-Dichloroethene	20.0	20.9		ug/L		105	60 - 140
cis-1,3-Dichloropropene	20.0	21.6		ug/L		108	25 - 175
Dibromochloromethane	20.0	20.6		ug/L		103	70 - 135
Dibromomethane	20.0	21.3		ug/L		107	60 - 140
Dichlorodifluoromethane	20.0	19.7		ug/L		99	60 - 140
Di-isopropyl ether (DIPE)	20.0	21.6		ug/L		108	60 - 140
Ethanol	200	198		ug/L		99	60 - 140
Ethylbenzene	20.0	21.0		ug/L		105	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	20.8		ug/L		104	60 - 140
Hexachloro-1,3-butadiene	20.0	19.4		ug/L		97	60 - 140
Isopropanol	100	85.6		ug/L		86	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-601839/1002
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	20.0	20.9		ug/L		104	60 - 140
m,p-Xylene	40.0	42.6		ug/L		107	60 - 140
Methylene Chloride	20.0	21.3		ug/L		107	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	20.6		ug/L		103	60 - 140
Naphthalene	20.0	17.9		ug/L		89	60 - 140
n-Butylbenzene	20.0	19.5		ug/L		97	60 - 140
N-Propylbenzene	20.0	21.5		ug/L		107	60 - 140
o-Xylene	20.0	20.4		ug/L		102	60 - 140
p-Isopropyltoluene	20.0	20.0		ug/L		100	60 - 140
sec-Butylbenzene	20.0	20.2		ug/L		101	60 - 140
Styrene	20.0	21.3		ug/L		106	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	19.6		ug/L		98	60 - 140
tert-Butyl alcohol (TBA)	100	93.3		ug/L		93	60 - 140
tert-Butylbenzene	20.0	19.7		ug/L		99	60 - 140
Tetrachloroethene	20.0	20.7		ug/L		103	70 - 130
Tetrahydrofuran	20.0	20.5		ug/L		102	60 - 140
Toluene	20.0	20.3		ug/L		102	70 - 130
trans-1,2-Dichloroethene	20.0	21.5		ug/L		107	70 - 130
trans-1,3-Dichloropropene	20.0	22.1		ug/L		110	50 - 150
Trichloroethene	20.0	20.7		ug/L		103	65 - 135
Trichlorofluoromethane	20.0	19.9		ug/L		100	50 - 150
Vinyl acetate	20.0	19.6		ug/L		98	60 - 140
Vinyl chloride	20.0	20.3		ug/L		102	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*110*		*60 - 140*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*
Dibromofluoromethane	*104*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Lab Sample ID: LCSD 570-601839/3
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	21.1		ug/L		106	60 - 140	2	30
1,1,1-Trichloroethane	20.0	21.6		ug/L		108	70 - 130	0	36
1,1,2,2-Tetrachloroethane	20.0	21.2		ug/L		106	60 - 140	4	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	20.6		ug/L		103	60 - 140	0	30
1,1,2-Trichloroethane	20.0	21.8		ug/L		109	70 - 130	1	45
1,1-Dichloroethane	20.0	22.3		ug/L		112	70 - 130	3	40
1,1-Dichloroethene	20.0	22.3		ug/L		111	50 - 150	1	32
1,1-Dichloropropene	20.0	21.0		ug/L		105	60 - 140	0	30
1,2,3-Trichlorobenzene	20.0	20.3		ug/L		102	60 - 140	4	30
1,2,3-Trichloropropane	20.0	23.3		ug/L		116	60 - 140	1	30
1,2,4-Trichlorobenzene	20.0	19.8		ug/L		99	60 - 140	4	30
1,2,4-Trimethylbenzene	20.0	21.1		ug/L		105	60 - 140	3	30
1,2-Dibromo-3-Chloropropane	20.0	22.4		ug/L		112	60 - 140	1	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-601839/3
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane	20.0	21.2		ug/L		106	60 - 140	1	30
1,2-Dichlorobenzene	20.0	21.0		ug/L		105	65 - 135	3	57
1,2-Dichloroethane	20.0	22.2		ug/L		111	70 - 130	1	49
1,2-Dichloropropane	20.0	21.6		ug/L		108	35 - 165	0	55
1,3,5-Trimethylbenzene	20.0	20.7		ug/L		104	60 - 140	1	30
1,3-Dichlorobenzene	20.0	20.6		ug/L		103	70 - 130	4	43
1,3-Dichloropropane	20.0	21.1		ug/L		105	60 - 140	0	30
1,4-Dichlorobenzene	20.0	20.4		ug/L		102	65 - 135	3	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	20.7		ug/L		104	60 - 140	2	30
2,2-Dichloropropane	20.0	20.7		ug/L		103	60 - 140	0	30
2-Butanone	20.0	22.4		ug/L		112	60 - 140	14	30
2-Chloroethyl vinyl ether	20.0	20.7		ug/L		103	1 - 225	5	71
2-Chlorotoluene	20.0	20.2		ug/L		101	60 - 140	3	30
2-Hexanone	20.0	19.8		ug/L		99	60 - 140	21	30
4-Chlorotoluene	20.0	21.3		ug/L		107	60 - 140	5	30
4-Methyl-2-pentanone	20.0	18.4		ug/L		92	60 - 140	1	30
Acetone	20.0	21.5		ug/L		108	60 - 140	0	30
Benzene	20.0	21.5		ug/L		108	65 - 135	1	61
Bromobenzene	20.0	20.6		ug/L		103	60 - 140	1	30
Bromochloromethane	20.0	22.5		ug/L		113	60 - 140	1	30
Bromodichloromethane	20.0	21.9		ug/L		110	65 - 135	2	56
Bromoform	20.0	21.0		ug/L		105	70 - 130	2	42
Bromomethane	20.0	18.1		ug/L		90	15 - 185	4	61
Carbon disulfide	20.0	21.7		ug/L		109	60 - 140	1	30
Carbon tetrachloride	20.0	22.7		ug/L		113	70 - 130	0	41
Chlorobenzene	20.0	20.3		ug/L		102	65 - 135	1	53
Chloroethane	20.0	21.4		ug/L		107	40 - 160	5	78
Chloroform	20.0	22.1		ug/L		110	70 - 135	3	30
Chloromethane	20.0	20.4		ug/L		102	1 - 205	3	60
cis-1,2-Dichloroethene	20.0	21.9		ug/L		109	60 - 140	4	30
cis-1,3-Dichloropropene	20.0	21.8		ug/L		109	25 - 175	1	58
Dibromochloromethane	20.0	20.5		ug/L		103	70 - 135	0	50
Dibromomethane	20.0	21.8		ug/L		109	60 - 140	2	30
Dichlorodifluoromethane	20.0	21.4		ug/L		107	60 - 140	8	30
Di-isopropyl ether (DIPE)	20.0	22.2		ug/L		111	60 - 140	3	30
Ethanol	200	211		ug/L		105	60 - 140	6	30
Ethylbenzene	20.0	20.7		ug/L		103	60 - 140	1	63
Ethyl-t-butyl ether (ETBE)	20.0	21.2		ug/L		106	60 - 140	2	30
Hexachloro-1,3-butadiene	20.0	19.9		ug/L		99	60 - 140	2	30
Isopropanol	100	106		ug/L		106	60 - 140	22	30
Isopropylbenzene	20.0	20.6		ug/L		103	60 - 140	1	30
m,p-Xylene	40.0	42.2		ug/L		105	60 - 140	1	30
Methylene Chloride	20.0	21.9		ug/L		109	60 - 140	2	28
Methyl-t-Butyl Ether (MTBE)	20.0	21.4		ug/L		107	60 - 140	4	30
Naphthalene	20.0	18.5		ug/L		92	60 - 140	3	30
n-Butylbenzene	20.0	20.3		ug/L		101	60 - 140	4	30
N-Propylbenzene	20.0	21.3		ug/L		106	60 - 140	1	30
o-Xylene	20.0	20.4		ug/L		102	60 - 140	0	30
p-Isopropyltoluene	20.0	20.7		ug/L		103	60 - 140	3	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-601839/3
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
sec-Butylbenzene			20.0	20.4		ug/L		102	60 - 140	1	30
Styrene			20.0	21.0		ug/L		105	60 - 140	1	30
Tert-amyl-methyl ether (TAME)			20.0	19.9		ug/L		100	60 - 140	2	30
tert-Butyl alcohol (TBA)			100	89.9		ug/L		90	60 - 140	4	30
tert-Butylbenzene			20.0	20.1		ug/L		101	60 - 140	2	30
Tetrachloroethene			20.0	20.3		ug/L		101	70 - 130	2	39
Tetrahydrofuran			20.0	21.6		ug/L		108	60 - 140	5	30
Toluene			20.0	20.8		ug/L		104	70 - 130	2	41
trans-1,2-Dichloroethene			20.0	21.7		ug/L		108	70 - 130	1	45
trans-1,3-Dichloropropene			20.0	22.0		ug/L		110	50 - 150	0	86
Trichloroethene			20.0	20.9		ug/L		104	65 - 135	1	48
Trichlorofluoromethane			20.0	21.4		ug/L		107	50 - 150	7	84
Vinyl acetate			20.0	21.1		ug/L		106	60 - 140	8	30
Vinyl chloride			20.0	21.2		ug/L		106	5 - 195	4	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*113*		*60 - 140*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*
Dibromofluoromethane	*105*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-601826/1-A
Matrix: Water
Analysis Batch: 602379

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601826

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
1,2-Dichlorobenzene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
1,3-Dichlorobenzene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
1,4-Dichlorobenzene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
1-Methylnaphthalene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2,4,5-Trichlorophenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2,4,6-Trichlorophenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2,4-Dichlorophenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2,4-Dimethylphenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2,4-Dinitrophenol	ND		50		ug/L		07/24/25 14:01	07/25/25 22:27	1
2,4-Dinitrotoluene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2,6-Dichlorophenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2,6-Dinitrotoluene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2-Chloronaphthalene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2-Chlorophenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2-Methylnaphthalene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2-Methylphenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2-Nitroaniline	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
2-Nitrophenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-601826/1-A
Matrix: Water
Analysis Batch: 602379

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601826

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
3/4-Methylphenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
3-Nitroaniline	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		07/24/25 14:01	07/25/25 22:27	1
4-Bromophenyl phenyl ether	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
4-Chloro-3-methylphenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
4-Chloroaniline	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
4-Nitroaniline	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
4-Nitrophenol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Acenaphthene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Acenaphthylene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Acetophenone	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Alpha-Terpineol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Aniline	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Anthracene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Azobenzene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Benzidine	ND		50		ug/L		07/24/25 14:01	07/25/25 22:27	1
Benzo[a]anthracene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Benzo[a]pyrene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Benzo[b]fluoranthene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Benzo[g,h,i]perylene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Benzo[k]fluoranthene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Benzoic acid	ND		50		ug/L		07/24/25 14:01	07/25/25 22:27	1
Benzyl alcohol	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Bis(2-chloroethyl)ether	ND		25		ug/L		07/24/25 14:01	07/25/25 22:27	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Butyl benzyl phthalate	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Carbazole	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Chrysene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Dibenz(a,h)anthracene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Dibenzofuran	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Diethyl phthalate	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Dimethyl phthalate	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Di-n-butyl phthalate	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Di-n-octyl phthalate	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Fluoranthene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Fluorene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Hexachloro-1,3-butadiene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Hexachlorobenzene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Hexachlorocyclopentadiene	ND		25		ug/L		07/24/25 14:01	07/25/25 22:27	1
Hexachloroethane	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Isophorone	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Naphthalene	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
n-Decane	ND		10		ug/L		07/24/25 14:01	07/25/25 22:27	1
Nitrobenzene	ND		25		ug/L		07/24/25 14:01	07/25/25 22:27	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-601826/1-A
Matrix: Water
Analysis Batch: 602379

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601826

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		10	ug/L		07/24/25 14:01	07/25/25 22:27	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		07/24/25 14:01	07/25/25 22:27	1
N-Nitrosodiphenylamine	ND		10	ug/L		07/24/25 14:01	07/25/25 22:27	1
n-Octadecane	ND		10	ug/L		07/24/25 14:01	07/25/25 22:27	1
Pentachlorophenol	ND		10	ug/L		07/24/25 14:01	07/25/25 22:27	1
Phenanthrene	ND		10	ug/L		07/24/25 14:01	07/25/25 22:27	1
Phenol	ND		10	ug/L		07/24/25 14:01	07/25/25 22:27	1
Pyrene	ND		10	ug/L		07/24/25 14:01	07/25/25 22:27	1
Pyridine	ND		10	ug/L		07/24/25 14:01	07/25/25 22:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*97*		*33 - 139*	*07/24/25 14:01*	*07/25/25 22:27*	*1*
2-Fluorobiphenyl (Surr)	*96*		*33 - 126*	*07/24/25 14:01*	*07/25/25 22:27*	*1*
2-Fluorophenol (Surr)	*53*		*12 - 120*	*07/24/25 14:01*	*07/25/25 22:27*	*1*
Nitrobenzene-d5 (Surr)	*88*		*36 - 120*	*07/24/25 14:01*	*07/25/25 22:27*	*1*
Phenol-d6 (Surr)	*32*		*10 - 120*	*07/24/25 14:01*	*07/25/25 22:27*	*1*
p-Terphenyl-d14 (Surr)	*91*		*47 - 131*	*07/24/25 14:01*	*07/25/25 22:27*	*1*

Lab Sample ID: LCS 570-601826/2-A
Matrix: Water
Analysis Batch: 602379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601826

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	100	91.3		ug/L		91	57 - 130
1,2-Dichlorobenzene	100	74.6		ug/L		75	50 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	71.6		ug/L		72	57 - 120
1,3-Dichlorobenzene	100	71.9		ug/L		72	46 - 120
1,4-Dichlorobenzene	100	70.7		ug/L		71	47 - 120
1-Methylnaphthalene	100	90.7		ug/L		91	63 - 120
2,4,5-Trichlorophenol	100	105		ug/L		105	62 - 120
2,4,6-Trichlorophenol	100	107		ug/L		107	52 - 129
2,4-Dichlorophenol	100	105		ug/L		105	53 - 122
2,4-Dimethylphenol	100	83.9		ug/L		84	42 - 120
2,4-Dinitrophenol	100	56.3		ug/L		56	1 - 173
2,4-Dinitrotoluene	100	97.6		ug/L		98	48 - 127
2,6-Dichlorophenol	100	103		ug/L		103	64 - 120
2,6-Dinitrotoluene	100	100		ug/L		100	68 - 137
2-Chloronaphthalene	100	89.9		ug/L		90	65 - 120
2-Chlorophenol	100	86.4		ug/L		86	36 - 120
2-Methylnaphthalene	100	88.6		ug/L		89	60 - 120
2-Methylphenol	100	70.3		ug/L		70	55 - 120
2-Nitroaniline	100	82.5		ug/L		82	53 - 120
2-Nitrophenol	100	103		ug/L		103	45 - 167
3,3'-Dichlorobenzidine	100	89.6		ug/L		90	8 - 213
3/4-Methylphenol	200	128		ug/L		64	41 - 120
3-Nitroaniline	100	92.0		ug/L		92	62 - 120
4,6-Dinitro-2-methylphenol	100	78.2		ug/L		78	53 - 130
4-Bromophenyl phenyl ether	100	99.0		ug/L		99	65 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-601826/2-A
Matrix: Water
Analysis Batch: 602379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601826

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Chloro-3-methylphenol	100	85.5		ug/L		86	41 - 128
4-Chloroaniline	100	87.1		ug/L		87	53 - 120
4-Chlorophenyl phenyl ether	100	91.8		ug/L		92	38 - 145
4-Nitroaniline	100	99.0		ug/L		99	61 - 120
4-Nitrophenol	100	36.7		ug/L		37	13 - 129
Acenaphthene	100	89.9		ug/L		90	60 - 132
Acenaphthylene	100	89.6		ug/L		90	54 - 126
Acetophenone	100	77.7		ug/L		78	45 - 120
Alpha-Terpineol	100	63.9		ug/L		64	60 - 140
Aniline	100	59.7		ug/L		60	50 - 120
Anthracene	100	90.1		ug/L		90	43 - 120
Azobenzene	100	71.6		ug/L		72	57 - 120
Benzidine	100	17.1	J *-	ug/L		17	20 - 143
Benzo[a]anthracene	100	95.8		ug/L		96	42 - 133
Benzo[a]pyrene	100	102		ug/L		102	32 - 148
Benzo[b]fluoranthene	100	105		ug/L		105	42 - 140
Benzo[g,h,i]perylene	100	98.0		ug/L		98	1 - 195
Benzo[k]fluoranthene	100	98.7		ug/L		99	25 - 146
Benzoic acid	100	46.3	J	ug/L		46	20 - 120
Benzyl alcohol	100	66.0		ug/L		66	47 - 120
Bis (2-chloroethoxy) methane	100	83.0		ug/L		83	49 - 165
bis (2-chloroisopropyl) ether	100	66.0		ug/L		66	63 - 139
Bis(2-chloroethyl)ether	100	73.7		ug/L		74	43 - 126
Bis(2-ethylhexyl) phthalate	100	97.4		ug/L		97	29 - 137
Butyl benzyl phthalate	100	94.9		ug/L		95	1 - 140
Chrysene	100	97.5		ug/L		97	44 - 140
Dibenz(a,h)anthracene	100	100		ug/L		100	1 - 200
Dibenzofuran	100	94.4		ug/L		94	61 - 120
Diethyl phthalate	100	90.5		ug/L		90	1 - 120
Dimethyl phthalate	100	93.0		ug/L		93	1 - 120
Di-n-butyl phthalate	100	93.0		ug/L		93	8 - 120
Di-n-octyl phthalate	100	99.4		ug/L		99	19 - 132
Fluoranthene	100	86.5		ug/L		87	43 - 121
Fluorene	100	90.6		ug/L		91	70 - 120
Hexachloro-1,3-butadiene	100	78.1		ug/L		78	38 - 120
Hexachlorobenzene	100	83.8		ug/L		84	8 - 142
Hexachlorocyclopentadiene	100	50.0		ug/L		50	46 - 135
Hexachloroethane	100	56.9		ug/L		57	55 - 120
Indeno[1,2,3-cd]pyrene	100	92.4		ug/L		92	1 - 151
Isophorone	100	79.8		ug/L		80	47 - 180
Naphthalene	100	85.6		ug/L		86	36 - 120
Nitrobenzene	100	85.0		ug/L		85	54 - 158
N-Nitrosodimethylamine	100	43.2		ug/L		43	38 - 120
N-Nitrosodi-n-propylamine	100	72.8		ug/L		73	14 - 198
N-Nitrosodiphenylamine	100	118		ug/L		118	79 - 127
Pentachlorophenol	100	78.8		ug/L		79	38 - 152
Phenanthrene	100	90.5		ug/L		90	65 - 120
Phenol	100	36.6		ug/L		37	17 - 120
Pyrene	100	100		ug/L		100	70 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-601826/2-A
Matrix: Water
Analysis Batch: 602379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601826

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Pyridine			100	39.1		ug/L		39	27 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*103*		*33 - 139*
2-Fluorobiphenyl (Surr)	*94*		*33 - 126*
2-Fluorophenol (Surr)	*54*		*12 - 120*
Nitrobenzene-d5 (Surr)	*87*		*36 - 120*
Phenol-d6 (Surr)	*35*		*10 - 120*
p-Terphenyl-d14 (Surr)	*100*		*47 - 131*

Lab Sample ID: LCSD 570-601826/3-A
Matrix: Water
Analysis Batch: 602379

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 601826

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			100	86.9		ug/L		87	57 - 130	5	30
1,2-Dichlorobenzene			100	73.0		ug/L		73	50 - 120	2	20
1,2-Diphenylhydrazine(as Azobenzene)			100	72.1		ug/L		72	57 - 120	1	20
1,3-Dichlorobenzene			100	69.6		ug/L		70	46 - 120	3	20
1,4-Dichlorobenzene			100	69.2		ug/L		69	47 - 120	2	20
1-Methylnaphthalene			100	89.0		ug/L		89	63 - 120	2	20
2,4,5-Trichlorophenol			100	95.4		ug/L		95	62 - 120	9	20
2,4,6-Trichlorophenol			100	103		ug/L		103	52 - 129	4	35
2,4-Dichlorophenol			100	105		ug/L		105	53 - 122	0	30
2,4-Dimethylphenol			100	85.2		ug/L		85	42 - 120	1	35
2,4-Dinitrophenol			100	59.6		ug/L		60	1 - 173	6	79
2,4-Dinitrotoluene			100	91.9		ug/L		92	48 - 127	6	25
2,6-Dichlorophenol			100	102		ug/L		102	64 - 120	1	20
2,6-Dinitrotoluene			100	96.6		ug/L		97	68 - 137	4	29
2-Chloronaphthalene			100	84.0		ug/L		84	65 - 120	7	15
2-Chlorophenol			100	87.8		ug/L		88	36 - 120	2	37
2-Methylnaphthalene			100	84.6		ug/L		85	60 - 120	5	20
2-Methylphenol			100	74.8		ug/L		75	55 - 120	6	20
2-Nitroaniline			100	79.5		ug/L		80	53 - 120	4	20
2-Nitrophenol			100	99.6		ug/L		100	45 - 167	3	33
3,3'-Dichlorobenzidine			100	89.6		ug/L		90	8 - 213	0	65
3/4-Methylphenol			200	133		ug/L		66	41 - 120	3	20
3-Nitroaniline			100	89.2		ug/L		89	62 - 120	3	20
4,6-Dinitro-2-methylphenol			100	84.9		ug/L		85	53 - 130	8	122
4-Bromophenyl phenyl ether			100	102		ug/L		102	65 - 120	3	26
4-Chloro-3-methylphenol			100	88.7		ug/L		89	41 - 128	4	44
4-Chloroaniline			100	91.1		ug/L		91	53 - 120	4	20
4-Chlorophenyl phenyl ether			100	86.7		ug/L		87	38 - 145	6	36
4-Nitroaniline			100	91.3		ug/L		91	61 - 120	8	20
4-Nitrophenol			100	33.4		ug/L		33	13 - 129	9	79
Acenaphthene			100	83.6		ug/L		84	60 - 132	7	29
Acenaphthylene			100	85.3		ug/L		85	54 - 126	5	45
Acetophenone			100	80.3		ug/L		80	45 - 120	3	20

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-601826/3-A
Matrix: Water
Analysis Batch: 602379

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 601826

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alpha-Terpineol	100	66.4		ug/L		66	60 - 140	4	30
Aniline	100	66.4		ug/L		66	50 - 120	11	20
Anthracene	100	85.6		ug/L		86	43 - 120	5	40
Azobenzene	100	72.1		ug/L		72	57 - 120	1	20
Benzidine	100	32.2	J *1	ug/L		32	20 - 143	61	30
Benzo[a]anthracene	100	92.0		ug/L		92	42 - 133	4	32
Benzo[a]pyrene	100	96.1		ug/L		96	32 - 148	6	43
Benzo[b]fluoranthene	100	95.8		ug/L		96	42 - 140	9	43
Benzo[g,h,i]perylene	100	94.2		ug/L		94	1 - 195	4	61
Benzo[k]fluoranthene	100	95.0		ug/L		95	25 - 146	4	38
Benzoic acid	100	28.7	J *1	ug/L		29	20 - 120	47	20
Benzyl alcohol	100	70.2		ug/L		70	47 - 120	6	20
Bis (2-chloroethoxy) methane	100	81.3		ug/L		81	49 - 165	2	32
bis (2-chloroisopropyl) ether	100	65.5		ug/L		66	63 - 139	1	46
Bis(2-chloroethyl)ether	100	76.8		ug/L		77	43 - 126	4	65
Bis(2-ethylhexyl) phthalate	100	98.2		ug/L		98	29 - 137	1	50
Butyl benzyl phthalate	100	97.2		ug/L		97	1 - 140	2	36
Chrysene	100	93.1		ug/L		93	44 - 140	5	53
Dibenz(a,h)anthracene	100	96.4		ug/L		96	1 - 200	4	75
Dibenzofuran	100	88.1		ug/L		88	61 - 120	7	20
Diethyl phthalate	100	86.2		ug/L		86	1 - 120	5	60
Dimethyl phthalate	100	90.0		ug/L		90	1 - 120	3	110
Di-n-butyl phthalate	100	90.1		ug/L		90	8 - 120	3	28
Di-n-octyl phthalate	100	95.8		ug/L		96	19 - 132	4	42
Fluoranthene	100	75.8		ug/L		76	43 - 121	13	40
Fluorene	100	84.7		ug/L		85	70 - 120	7	23
Hexachloro-1,3-butadiene	100	72.5		ug/L		73	38 - 120	7	38
Hexachlorobenzene	100	83.4		ug/L		83	8 - 142	0	33
Hexachlorocyclopentadiene	100	45.4	*-	ug/L		45	46 - 135	10	20
Hexachloroethane	100	54.6		ug/L		55	55 - 120	4	32
Indeno[1,2,3-cd]pyrene	100	87.6		ug/L		88	1 - 151	5	60
Isophorone	100	78.3		ug/L		78	47 - 180	2	56
Naphthalene	100	81.6		ug/L		82	36 - 120	5	39
Nitrobenzene	100	82.4		ug/L		82	54 - 158	3	37
N-Nitrosodimethylamine	100	46.1		ug/L		46	38 - 120	6	20
N-Nitrosodi-n-propylamine	100	75.0		ug/L		75	14 - 198	3	52
N-Nitrosodiphenylamine	100	126		ug/L		126	79 - 127	6	20
Pentachlorophenol	100	74.5		ug/L		74	38 - 152	6	52
Phenanthrene	100	86.8		ug/L		87	65 - 120	4	24
Phenol	100	39.6		ug/L		40	17 - 120	8	39
Pyrene	100	103		ug/L		103	70 - 120	3	30
Pyridine	100	40.7		ug/L		41	27 - 120	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*103*		*33 - 139*
2-Fluorobiphenyl (Surr)	*87*		*33 - 126*
2-Fluorophenol (Surr)	*57*		*12 - 120*
Nitrobenzene-d5 (Surr)	*84*		*36 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-601826/3-A
Matrix: Water
Analysis Batch: 602379

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 601826

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Phenol-d6 (Surr)	*38*		*10 - 120*
p-Terphenyl-d14 (Surr)	*104*		*47 - 131*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 410-677485/1-A
Matrix: Water
Analysis Batch: 677827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 677485

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		07/29/25 07:35	07/29/25 19:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*72*		*30 - 187*	*07/29/25 07:35*	*07/29/25 19:20*	*1*
Benzo(a)pyrene-d12 (Surr)	*68*		*32 - 194*	*07/29/25 07:35*	*07/29/25 19:20*	*1*
1-Methylnaphthalene-d10	*56*		*45 - 130*	*07/29/25 07:35*	*07/29/25 19:20*	*1*

Lab Sample ID: LCS 410-677485/2-A
Matrix: Water
Analysis Batch: 677827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 677485

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			1.00	0.424		ug/L		42	18 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*77*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*76*		*32 - 194*
1-Methylnaphthalene-d10	*57*		*45 - 130*

Lab Sample ID: LCSD 410-677485/3-A
Matrix: Water
Analysis Batch: 677827

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 677485

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			1.00	0.348		ug/L		35	18 - 130	20	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*67*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*68*		*32 - 194*
1-Methylnaphthalene-d10	*57*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-606201/37
Matrix: Water
Analysis Batch: 606201

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50		ug/L			08/02/25 22:39	1
Gasoline Range Organics (C4-C12)	ND		50		ug/L			08/02/25 22:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*20 - 144*		*08/02/25 22:39*	*1*

Lab Sample ID: LCS 570-606201/35
Matrix: Water
Analysis Batch: 606201

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			2000	1920		ug/L		96	71 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*20 - 144*

Lab Sample ID: LCSD 570-606201/36
Matrix: Water
Analysis Batch: 606201

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2000	1890		ug/L		95	71 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*20 - 144*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-602264/1-A
Matrix: Water
Analysis Batch: 604292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602264

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0067		ug/L		07/25/25 10:39	07/30/25 14:55	1
4,4'-DDE	ND		0.0033		ug/L		07/25/25 10:39	07/30/25 14:55	1
4,4'-DDT	ND		0.0033		ug/L		07/25/25 10:39	07/30/25 14:55	1
Aldrin	ND		0.0033		ug/L		07/25/25 10:39	07/30/25 14:55	1
alpha-BHC	ND		0.0013		ug/L		07/25/25 10:39	07/30/25 14:55	1
alpha-Chlordane	ND		0.033		ug/L		07/25/25 10:39	07/30/25 14:55	1
beta-BHC	ND		0.0050		ug/L		07/25/25 10:39	07/30/25 14:55	1
Chlordane	ND		0.033		ug/L		07/25/25 10:39	07/30/25 14:55	1
delta-BHC	ND		0.0033		ug/L		07/25/25 10:39	07/30/25 14:55	1
Dieldrin	ND		0.0033		ug/L		07/25/25 10:39	07/30/25 14:55	1
Endosulfan I	ND		0.0013		ug/L		07/25/25 10:39	07/30/25 14:55	1
Endosulfan II	ND		0.0067		ug/L		07/25/25 10:39	07/30/25 14:55	1
Endosulfan sulfate	ND		0.0033		ug/L		07/25/25 10:39	07/30/25 14:55	1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 570-602264/1-A
Matrix: Water
Analysis Batch: 604292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602264

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin	ND		0.0033	ug/L		07/25/25 10:39	07/30/25 14:55	1
Endrin aldehyde	ND		0.033	ug/L		07/25/25 10:39	07/30/25 14:55	1
Endrin ketone	ND		0.0033	ug/L		07/25/25 10:39	07/30/25 14:55	1
gamma-BHC (Lindane)	ND		0.0013	ug/L		07/25/25 10:39	07/30/25 14:55	1
gamma-Chlordane	ND		0.010	ug/L		07/25/25 10:39	07/30/25 14:55	1
Heptachlor	ND		0.0013	ug/L		07/25/25 10:39	07/30/25 14:55	1
Heptachlor epoxide	ND		0.0067	ug/L		07/25/25 10:39	07/30/25 14:55	1
Methoxychlor	ND		0.0067	ug/L		07/25/25 10:39	07/30/25 14:55	1
Toxaphene	ND		0.067	ug/L		07/25/25 10:39	07/30/25 14:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*86*		*20 - 154*	*07/25/25 10:39*	*07/30/25 14:55*	*1*
Tetrachloro-m-xylene (Surr)	*69*		*20 - 139*	*07/25/25 10:39*	*07/30/25 14:55*	*1*

Lab Sample ID: LCS 570-602264/2-A
Matrix: Water
Analysis Batch: 604292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602264

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0333	0.0233		ug/L		70	31 - 141
4,4'-DDE	0.0333	0.0211		ug/L		63	30 - 145
4,4'-DDT	0.0333	0.0228		ug/L		68	25 - 160
Aldrin	0.0333	0.0181		ug/L		54	42 - 140
alpha-BHC	0.0333	0.0182		ug/L		54	37 - 140
alpha-Chlordane	0.0333	0.0211	J	ug/L		63	45 - 140
beta-BHC	0.0333	0.0196		ug/L		59	17 - 147
delta-BHC	0.0333	0.0168		ug/L		50	19 - 140
Dieldrin	0.0333	0.0222		ug/L		67	36 - 146
Endosulfan I	0.0333	0.0201		ug/L		60	45 - 153
Endosulfan II	0.0333	0.0229		ug/L		69	1 - 202
Endosulfan sulfate	0.0333	0.0221		ug/L		66	26 - 144
Endrin	0.0333	0.0224		ug/L		67	30 - 147
Endrin aldehyde	0.0333	ND		ug/L		60	50 - 135
Endrin ketone	0.0333	0.0225		ug/L		68	60 - 140
gamma-BHC (Lindane)	0.0333	0.0187		ug/L		56	32 - 140
gamma-Chlordane	0.0333	0.0203		ug/L		61	45 - 140
Heptachlor	0.0333	0.0173		ug/L		52	34 - 140
Heptachlor epoxide	0.0333	0.0205		ug/L		61	37 - 142
Methoxychlor	0.0333	0.0223		ug/L		67	50 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*82*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*63*		*20 - 139*

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 570-602264/3-A
Matrix: Water
Analysis Batch: 604292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 602264

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.0333	0.0222		ug/L		67	31 - 141	5	39
4,4'-DDE			0.0333	0.0202		ug/L		61	30 - 145	4	35
4,4'-DDT			0.0333	0.0216		ug/L		65	25 - 160	6	42
Aldrin			0.0333	0.0177		ug/L		53	42 - 140	3	35
alpha-BHC			0.0333	0.0177		ug/L		53	37 - 140	2	36
alpha-Chlordane			0.0333	0.0196	J	ug/L		59	45 - 140	7	35
beta-BHC			0.0333	0.0186		ug/L		56	17 - 147	5	44
delta-BHC			0.0333	0.0155		ug/L		47	19 - 140	8	52
Dieldrin			0.0333	0.0211		ug/L		63	36 - 146	5	49
Endosulfan I			0.0333	0.0196		ug/L		59	45 - 153	3	28
Endosulfan II			0.0333	0.0217		ug/L		65	1 - 202	6	53
Endosulfan sulfate			0.0333	0.0217		ug/L		65	26 - 144	2	38
Endrin			0.0333	0.0211		ug/L		63	30 - 147	6	48
Endrin aldehyde			0.0333	ND		ug/L		65	50 - 135	9	25
Endrin ketone			0.0333	0.0221		ug/L		66	60 - 140	2	30
gamma-BHC (Lindane)			0.0333	0.0187		ug/L		56	32 - 140	0	39
gamma-Chlordane			0.0333	0.0196		ug/L		59	45 - 140	4	35
Heptachlor			0.0333	0.0174		ug/L		52	34 - 140	1	43
Heptachlor epoxide			0.0333	0.0187		ug/L		56	37 - 142	9	26
Methoxychlor			0.0333	0.0210		ug/L		63	50 - 135	6	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*76*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*59*		*20 - 139*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-602264/1-A
Matrix: Water
Analysis Batch: 603939

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602264

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.067		ug/L		07/25/25 10:39	07/29/25 16:03	1
Aroclor-1221	ND		0.067		ug/L		07/25/25 10:39	07/29/25 16:03	1
Aroclor-1232	ND		0.067		ug/L		07/25/25 10:39	07/29/25 16:03	1
Aroclor-1242	ND		0.067		ug/L		07/25/25 10:39	07/29/25 16:03	1
Aroclor-1248	ND		0.067		ug/L		07/25/25 10:39	07/29/25 16:03	1
Aroclor-1254	ND		0.067		ug/L		07/25/25 10:39	07/29/25 16:03	1
Aroclor-1260	ND		0.067		ug/L		07/25/25 10:39	07/29/25 16:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*97*		*20 - 154*	*07/25/25 10:39*	*07/29/25 16:03*	*1*
Tetrachloro-m-xylene (Surr)	*66*		*20 - 139*	*07/25/25 10:39*	*07/29/25 16:03*	*1*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 570-602264/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603939 — **Prep Batch: 602264**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			0.133	0.108		ug/L		81	50 - 140		
Aroclor-1260			0.133	0.137		ug/L		103	8 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*89*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*64*		*20 - 139*

Lab Sample ID: LCSD 570-602264/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603939 — **Prep Batch: 602264**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor-1016			0.133	0.115		ug/L		86	50 - 140	6	36
Aroclor-1260			0.133	0.171		ug/L		128	8 - 140	22	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*94*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*63*		*20 - 139*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-677413/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677684 — **Prep Batch: 677413**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L		07/28/25 23:29	07/29/25 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*103*		*46 - 136*	*07/28/25 23:29*	*07/29/25 12:29*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*100*		*46 - 136*	*07/28/25 23:29*	*07/29/25 12:29*	*1*

Lab Sample ID: LCS 410-677413/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677684 — **Prep Batch: 677413**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene Dibromide			0.129	0.135		ug/L		104	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*105*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*102*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-677413/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677684 — **Prep Batch: 677413**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide			0.129	0.140		ug/L		108	60 - 140	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*105*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*103*		*46 - 136*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-603849/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 607769 — **Prep Batch: 603849**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250		ug/L		07/29/25 09:22	08/06/25 17:45	1
Diesel Range Organics [C10-C28]	ND		50		ug/L		07/29/25 09:22	08/06/25 17:45	1
C24-C44	ND		250		ug/L		07/29/25 09:22	08/06/25 17:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*104*		*53 - 151*	*07/29/25 09:22*	*08/06/25 17:45*	*1*

Lab Sample ID: LCS 570-603849/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605388 — **Prep Batch: 603849**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			4000	4850		ug/L		121	65 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*111*		*53 - 151*

Lab Sample ID: LCS 570-603849/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 607769 — **Prep Batch: 603849**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Crude Oil (C7-C44)			4000	3340		ug/L		84	43 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*100*		*53 - 151*

Lab Sample ID: LCSD 570-603849/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605388 — **Prep Batch: 603849**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			4000	4330		ug/L		108	65 - 129	11	30

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 570-603849/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605388 — **Prep Batch: 603849**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	101		53 - 151

Lab Sample ID: LCSD 570-603849/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 607769 — **Prep Batch: 603849**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Crude Oil (C7-C44)			4000	3380		ug/L		84	43 - 131	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	110		53 - 151

Method: 8015C - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 410-680235/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 680325 — **Prep Batch: 680235**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	16.0	B	13		mg/L		08/04/25 10:29	08/04/25 15:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Butanediol	76		10 - 130	08/04/25 10:29	08/04/25 15:20	1

Lab Sample ID: LCS 410-680235/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 680325 — **Prep Batch: 680235**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene glycol			99.8	94.9		mg/L		95	75 - 124		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Butanediol	90		10 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-603730/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603730

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10		mg/L			07/29/25 06:29	1
Chloride	ND		1.0		mg/L			07/29/25 06:29	1
Fluoride	ND		0.10		mg/L			07/29/25 06:29	1
Sulfate	ND		1.0		mg/L			07/29/25 06:29	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 570-603730/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603730

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	5.15		mg/L		103	90 - 110
Chloride	50.0	50.0		mg/L		100	90 - 110
Fluoride	2.50	2.67		mg/L		107	90 - 110
Sulfate	50.0	48.0		mg/L		96	90 - 110

Lab Sample ID: LCSD 570-603730/7 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603730

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	5.14		mg/L		103	90 - 110	0	15
Chloride	50.0	49.9		mg/L		100	90 - 110	0	15
Fluoride	2.50	2.68		mg/L		107	90 - 110	0	15
Sulfate	50.0	48.3		mg/L		97	90 - 110	1	15

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-8442/18 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8442

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			07/28/25 14:17	1

Lab Sample ID: MB 350-8442/19 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8442

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			07/28/25 14:21	1

Lab Sample ID: MB 350-8442/20 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8442

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			07/28/25 14:25	1

Lab Sample ID: LCS 350-8442/25 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8442

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.84		ng/L		97	77 - 123

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: LCSD 350-8442/26
Matrix: Water
Analysis Batch: 8442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			5.00	4.91		ng/L		98	77 - 123	1	24

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-8663/1-A
Matrix: Water
Analysis Batch: 8697

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8663

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:04	1
Cadmium	ND		0.020		ug/L		08/06/25 00:00	08/06/25 23:04	1
Chromium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Copper	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:04	1
Lead	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:04	1
Silver	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Zinc	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Aluminum	ND		5.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Barium	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:04	1
Manganese	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:04	1
Selenium	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:04	1
Vanadium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1

Lab Sample ID: MB 350-8663/2-A
Matrix: Water
Analysis Batch: 8697

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8663

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:18	1
Cadmium	ND		0.020		ug/L		08/06/25 00:00	08/06/25 23:18	1
Chromium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Copper	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:18	1
Lead	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:18	1
Silver	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Zinc	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Aluminum	ND		5.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Barium	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:18	1
Manganese	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:18	1
Selenium	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:18	1
Vanadium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1

Lab Sample ID: LCS 350-8663/3-A
Matrix: Water
Analysis Batch: 8697

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8663

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			12.5	11.4		ug/L		91	70 - 130		
Cadmium			1.25	1.24		ug/L		100	70 - 130		
Chromium			12.5	12.1		ug/L		97	70 - 130		
Copper			12.5	12.3		ug/L		99	70 - 130		

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-8663/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.50	2.63		ug/L		105	70 - 130
Silver	6.25	5.94		ug/L		95	70 - 130
Zinc	12.5	12.7		ug/L		101	70 - 130
Aluminum	125	118		ug/L		94	70 - 130
Barium	12.5	11.9		ug/L		95	70 - 130
Manganese	12.5	12.1		ug/L		97	70 - 130
Selenium	12.5	11.6		ug/L		93	70 - 130
Vanadium	12.5	12.2		ug/L		98	70 - 130

Lab Sample ID: LCSD 350-8663/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	11.3		ug/L		90	70 - 130	1	20
Cadmium	1.25	1.22		ug/L		98	70 - 130	2	20
Chromium	12.5	11.9		ug/L		95	70 - 130	1	20
Copper	12.5	12.1		ug/L		97	70 - 130	2	20
Lead	2.50	2.60		ug/L		104	70 - 130	1	20
Silver	6.25	6.06		ug/L		97	70 - 130	2	20
Zinc	12.5	12.5		ug/L		100	70 - 130	1	20
Aluminum	125	121		ug/L		97	70 - 130	2	20
Barium	12.5	12.0		ug/L		96	70 - 130	1	20
Manganese	12.5	12.2		ug/L		98	70 - 130	0	20
Selenium	12.5	11.7		ug/L		94	70 - 130	1	20
Vanadium	12.5	12.6		ug/L		101	70 - 130	3	20

Lab Sample ID: MB 350-8770/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		6.0	ug/L		08/11/25 00:00	08/11/25 22:44	1

Lab Sample ID: LCS 350-8770/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	62.5	56.7		ug/L		91	70 - 130

Lab Sample ID: LCSD 350-8770/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	62.5	59.5		ug/L		95	70 - 130	5	20

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 380-162301-1 MS
Matrix: Water
Analysis Batch: 8697

Client Sample ID: MW 1
Prep Type: Dissolved
Prep Batch: 8663

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.8		12.5	15.2		ug/L		107	50 - 150
Cadmium	ND		1.25	1.18		ug/L		95	50 - 150
Chromium	ND		12.5	12.6		ug/L		98	50 - 150
Copper	0.54		12.5	12.8		ug/L		98	50 - 150
Lead	0.070		2.50	2.55		ug/L		99	50 - 150
Silver	ND		6.25	6.30		ug/L		92	50 - 150
Zinc	ND		12.5	13.7		ug/L		104	50 - 150
Aluminum	ND		125	121		ug/L		96	50 - 150
Selenium	ND		12.5	12.8		ug/L		103	50 - 150
Vanadium	13		12.5	25.6		ug/L		104	50 - 150

Lab Sample ID: 380-162301-1 MS
Matrix: Water
Analysis Batch: 8697

Client Sample ID: MW 1
Prep Type: Dissolved
Prep Batch: 8663

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	42		12.5	50.6		ug/L		72	50 - 150
Manganese	120		12.5	120	4	ug/L		34	50 - 150

Lab Sample ID: 380-162301-1 MSD
Matrix: Water
Analysis Batch: 8697

Client Sample ID: MW 1
Prep Type: Dissolved
Prep Batch: 8663

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.8		12.5	14.9		ug/L		105	50 - 150	2	20
Cadmium	ND		1.25	1.18		ug/L		95	50 - 150	0	20
Chromium	ND		12.5	12.6		ug/L		98	50 - 150	0	20
Copper	0.54		12.5	12.7		ug/L		97	50 - 150	1	20
Lead	0.070		2.50	2.50		ug/L		97	50 - 150	2	20
Silver	ND		6.25	6.55		ug/L		96	50 - 150	4	20
Zinc	ND		12.5	13.7		ug/L		104	50 - 150	0	20
Aluminum	ND		125	120		ug/L		96	50 - 150	1	20
Selenium	ND		12.5	12.8		ug/L		102	50 - 150	0	20
Vanadium	13		12.5	24.9		ug/L		99	50 - 150	3	20

Lab Sample ID: 380-162301-1 MSD
Matrix: Water
Analysis Batch: 8697

Client Sample ID: MW 1
Prep Type: Dissolved
Prep Batch: 8663

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	42		12.5	52.8		ug/L		90	50 - 150	10	20
Manganese	120		12.5	126	4	ug/L		79	50 - 150	6	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 570-607221/1-A
Matrix: Water
Analysis Batch: 607956

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		2.0		mg/L			08/06/25 14:54	1
Iron	ND		0.50		mg/L			08/06/25 14:54	1
Lithium	ND		0.050		mg/L			08/06/25 14:54	1
Magnesium	ND		0.50		mg/L			08/06/25 14:54	1
Potassium	ND		2.0		mg/L			08/06/25 14:54	1
SiO2	ND		0.54		mg/L			08/06/25 14:54	1
Sodium	ND		2.0		mg/L			08/06/25 14:54	1
Strontium	ND		0.010		mg/L			08/06/25 14:54	1

Lab Sample ID: LCS 570-607221/2-A
Matrix: Water
Analysis Batch: 607956

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium			2.50	2.59		mg/L		104	80 - 120		
Iron			0.500	0.526		mg/L		105	80 - 120		
Lithium			0.500	0.512		mg/L		102	80 - 120		
Magnesium			2.50	2.63		mg/L		105	80 - 120		
Potassium			5.00	5.07		mg/L		101	80 - 120		
SiO2			5.38	5.61		mg/L		104	80 - 120		
Sodium			5.00	5.12		mg/L		102	80 - 120		
Strontium			0.500	0.507		mg/L		101	80 - 120		

Lab Sample ID: LCSD 570-607221/3-A
Matrix: Water
Analysis Batch: 607956

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium			2.50	2.56		mg/L		102	80 - 120	1	20
Iron			0.500	0.511		mg/L		102	80 - 120	3	20
Lithium			0.500	0.505		mg/L		101	80 - 120	1	20
Magnesium			2.50	2.52		mg/L		101	80 - 120	4	20
Potassium			5.00	4.98		mg/L		100	80 - 120	2	20
SiO2			5.38	5.42		mg/L		101	80 - 120	3	20
Sodium			5.00	5.01		mg/L		100	80 - 120	2	20
Strontium			0.500	0.495		mg/L		99	80 - 120	3	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-607199/1-A
Matrix: Water
Analysis Batch: 607416

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L			08/05/25 17:27	1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-607199/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	80.0	80.9		ug/L		101	80 - 120

Lab Sample ID: LCSD 570-607199/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium	80.0	84.2		ug/L		105	80 - 120	4	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-602857/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603475 — **Prep Batch: 602857**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0	mg/L		07/26/25 11:01	07/28/25 13:49	1

Lab Sample ID: LCS 570-602857/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603475 — **Prep Batch: 602857**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM: Oil and Grease	40.0	31.60		mg/L		79	78 - 114

Lab Sample ID: LCSD 570-602857/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603475 — **Prep Batch: 602857**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease	40.0	34.60		mg/L		87	78 - 114	9	18

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-605732/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	mg/L		08/01/25 12:27	08/04/25 15:19	1

Lab Sample ID: LCS 570-605732/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	5.00	5.24		mg/L		105	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCSD 570-605732/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen			5.00	5.28		mg/L		106	90 - 110	1	20

Method: 410.4 - COD

Lab Sample ID: MB 570-606240/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L		08/03/25 08:40	08/03/25 08:19	1

Lab Sample ID: LCS 570-606240/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chemical Oxygen Demand			50.0	49.9		mg/L		100	90 - 110		

Lab Sample ID: LCSD 570-606240/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand			50.0	49.9		mg/L		100	90 - 110	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 570-606867/10 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606867

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		5.0		mg/L			08/04/25 17:34	1
Bicarbonate (as CaCO3)	ND		5.0		mg/L			08/04/25 17:34	1
Carbonate (as CaCO3)	ND		5.0		mg/L			08/04/25 17:34	1
Hydroxide (as CaCO3)	ND		5.0		mg/L			08/04/25 17:34	1

Lab Sample ID: LCS 570-606867/8 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606867

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity, Total (As CaCO3)			106	105		mg/L		99	78 - 110		

Lab Sample ID: LCSD 570-606867/9 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606867

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)			106	96.3		mg/L		91	78 - 110	8	10

Method: SM 2520B - Salinity

Lab Sample ID: LCS 570-609968/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609968

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Salinity	35.0	36.6		psu		105	95 - 105

Lab Sample ID: LCSD 570-609968/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609968

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Salinity	35.0	36.5		psu		104	95 - 105	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-603667/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603667

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	mg/L			07/28/25 21:14	1

Lab Sample ID: LCS 570-603667/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603667

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	972		mg/L		97	85 - 110

Lab Sample ID: LCSD 570-603667/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603667

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	974		mg/L		97	85 - 110	0	10

Lab Sample ID: 380-162301-1 DU — **Client Sample ID: MW 1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603667

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	9000		9520		mg/L		5	8

Method: SM 5310C - TOC

Lab Sample ID: MB 570-613731/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 613731

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic	ND		0.50	mg/L			08/18/25 16:00	1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: LCS 570-613731/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 613731

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon, Non-Purgable Organic	5.03	5.07		mg/L		101	85 - 115

Lab Sample ID: LCSD 570-613731/8 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 613731

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic	5.03	5.12		mg/L		102	85 - 115	1	15

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-729202/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	0.1638	U	0.525	0.525	4.00	0.889	pCi/L	07/28/25 07:56	07/29/25 18:20	1

Lab Sample ID: LCSB 160-729202/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Beta	69.5	70.67		7.60	4.00	0.972	pCi/L	102	75 - 125

Lab Sample ID: LCSBD 160-729202/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	Spike Added	LCSBD Result	LCSBD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Gross Beta	69.5	67.86		7.33	4.00	1.01	pCi/L	98	75 - 125	4	25

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-729203/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732633 — **Prep Batch: 729203**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.09497	U	0.180	0.181	1.00	0.321	pCi/L	07/28/25 08:03	08/19/25 21:46	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*30 - 110*	*07/28/25 08:03*	*08/19/25 21:46*	*1*

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-729203/2-A
Matrix: Water
Analysis Batch: 732633

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 729203

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.57	8.382		1.13	1.00	0.291	pCi/L	88	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.4*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-729204/1-A
Matrix: Water
Analysis Batch: 732633

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 729204

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2363	U	0.389	0.390	1.00	0.664	pCi/L	07/28/25 08:06	08/19/25 11:57	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*30 - 110*	*07/28/25 08:06*	*08/19/25 11:57*	*1*
Y Carrier	*74.8*		*30 - 110*	*07/28/25 08:06*	*08/19/25 11:57*	*1*

Lab Sample ID: LCS 160-729204/2-A
Matrix: Water
Analysis Batch: 732633

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 729204

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.15	10.94		1.46	1.00	0.544	pCi/L	120	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.4*		*30 - 110*
Y Carrier	*81.1*		*30 - 110*

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-730442/1-A
Matrix: Water
Analysis Batch: 732445

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 730442

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	-0.1749	U	0.132	0.133	3.00	0.272	pCi/L	08/04/25 11:23	08/18/25 15:05	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*79.3*		*30 - 110*	*08/04/25 11:23*	*08/18/25 15:05*	*1*
Y Carrier	*93.5*		*30 - 110*	*08/04/25 11:23*	*08/18/25 15:05*	*1*

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: LCS 160-730442/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732445 — **Prep Batch: 730442**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Strontium-90			6.94	6.252		0.681	3.00	0.226	pCi/L	90	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*81.4*		*30 - 110*
Y Carrier	*96.8*		*30 - 110*

Lab Sample ID: LCSD 160-730442/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732445 — **Prep Batch: 730442**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Strontium-90			6.94	6.441		0.697	3.00	0.250	pCi/L	93	75 - 125	3	25

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Sr Carrier	*84.7*		*30 - 110*
Y Carrier	*93.5*		*30 - 110*

Method: SM7110C - Gross Alpha by Co-Precipitation

Lab Sample ID: MB 160-730803/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 730988 — **Prep Batch: 730803**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.9634		0.792	0.800	3.00	0.742	pCi/L	08/06/25 08:27	08/07/25 15:35	1

Lab Sample ID: LCS 160-730803/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 730988 — **Prep Batch: 730803**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Alpha			39.6	45.56		6.26	3.00	0.576	pCi/L	115	80 - 120		

Method: U-02-RC - Uranium, Method U02

Lab Sample ID: MB 160-730590/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 731065 — **Prep Batch: 730590**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Uranium-234	0.001550	U	0.0538	0.0538	1.00	0.160	pCi/L	08/05/25 13:07	08/08/25 20:33	1
Uranium-235	0.0000	U	0.0116	0.0116	1.00	0.0926	pCi/L	08/05/25 13:07	08/08/25 20:33	1
Uranium-238	-0.009280	U	0.0131	0.0131	1.00	0.129	pCi/L	08/05/25 13:07	08/08/25 20:33	1
Total Uranium	0.001550	U	0.05657	0.05657	1.00	0.160	pCi/L	08/05/25 13:07	08/08/25 20:33	1

Method: U-02-RC - Uranium, Method U02 (Continued)

Tracer	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Uranium-232	75.7		30 - 110	08/05/25 13:07	08/08/25 20:33	1

Lab Sample ID: LCS 160-730590/2-A
Matrix: Water
Analysis Batch: 731066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 730590

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Uranium-234			12.7	14.03		1.69	1.00	0.120	pCi/L	111	75 - 125		
Uranium-238			12.9	12.69		1.57	1.00	0.0790	pCi/L	98	75 - 125		

Tracer	LCS %Yield	LCS Qualifier	Limits
Uranium-232	70.6		30 - 110

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

GC/MS VOA

Analysis Batch: 601839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	624.1	
MB 570-601839/6	Method Blank	Total/NA	Water	624.1	
LCS 570-601839/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-601839/3	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 601826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	625.1	
MB 570-601826/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-601826/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-601826/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 602379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-601826/1-A	Method Blank	Total/NA	Water	625.1	601826
LCS 570-601826/2-A	Lab Control Sample	Total/NA	Water	625.1	601826
LCSD 570-601826/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	601826

Analysis Batch: 604563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	625.1	601826

Prep Batch: 677485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	625.1	
MB 410-677485/1-A	Method Blank	Total/NA	Water	625.1	
LCS 410-677485/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 410-677485/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 677827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	625.1 SIM	677485
MB 410-677485/1-A	Method Blank	Total/NA	Water	625.1 SIM	677485
LCS 410-677485/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	677485
LCSD 410-677485/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	677485

GC VOA

Analysis Batch: 606201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	8015B	
MB 570-606201/37	Method Blank	Total/NA	Water	8015B	
LCS 570-606201/35	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-606201/36	Lab Control Sample Dup	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 602264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	608	

GC Semi VOA (Continued)

Prep Batch: 602264 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-602264/1-A	Method Blank	Total/NA	Water	608	
LCS 570-602264/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 570-602264/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-602264/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 570-602264/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Prep Batch: 603849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	3510C	
MB 570-603849/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-603849/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 570-603849/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-603849/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 570-603849/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 603939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	608.3	602264
MB 570-602264/1-A	Method Blank	Total/NA	Water	608.3	602264
LCS 570-602264/4-A	Lab Control Sample	Total/NA	Water	608.3	602264
LCSD 570-602264/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	602264

Analysis Batch: 604292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-602264/1-A	Method Blank	Total/NA	Water	608.3	602264
LCS 570-602264/2-A	Lab Control Sample	Total/NA	Water	608.3	602264
LCSD 570-602264/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	602264

Analysis Batch: 605388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-603849/2-A	Lab Control Sample	Total/NA	Water	8015B	603849
LCSD 570-603849/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	603849

Analysis Batch: 607769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	8015B	603849
MB 570-603849/1-A	Method Blank	Total/NA	Water	8015B	603849
LCS 570-603849/4-A	Lab Control Sample	Total/NA	Water	8015B	603849
LCSD 570-603849/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	603849

Analysis Batch: 607971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	608.3	602264

Prep Batch: 677413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	8011	
MB 410-677413/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-677413/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-677413/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

GC Semi VOA

Analysis Batch: 677684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	8011	677413
MB 410-677413/1-A	Method Blank	Total/NA	Water	8011	677413
LCS 410-677413/2-A	Lab Control Sample	Total/NA	Water	8011	677413
LCSD 410-677413/3-A	Lab Control Sample Dup	Total/NA	Water	8011	677413

Prep Batch: 680235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	8015 DAI Prep	
MB 410-680235/1-A	Method Blank	Total/NA	Water	8015 DAI Prep	
LCS 410-680235/2-A	Lab Control Sample	Total/NA	Water	8015 DAI Prep	

Analysis Batch: 680325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	8015C	680235
MB 410-680235/1-A	Method Blank	Total/NA	Water	8015C	680235
LCS 410-680235/2-A	Lab Control Sample	Total/NA	Water	8015C	680235

HPLC/IC

Analysis Batch: 603730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	300.0	
380-162301-1 - DL	MW 1	Total/NA	Water	300.0	
MB 570-603730/5	Method Blank	Total/NA	Water	300.0	
LCS 570-603730/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-603730/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Analysis Batch: 8442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Dissolved	Water	1631E	
MB 350-8442/18	Method Blank	Total/NA	Water	1631E	
MB 350-8442/19	Method Blank	Total/NA	Water	1631E	
MB 350-8442/20	Method Blank	Total/NA	Water	1631E	
LCS 350-8442/25	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-8442/26	Lab Control Sample Dup	Total/NA	Water	1631E	

Prep Batch: 8663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Dissolved	Water	1640	
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
380-162301-1 MS	MW 1	Dissolved	Water	1640	
380-162301-1 MSD	MW 1	Dissolved	Water	1640	

Analysis Batch: 8697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Dissolved	Water	1640	8663
380-162301-1	MW 1	Dissolved	Water	1640	8663

Metals (Continued)

Analysis Batch: 8697 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	8663
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	8663
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	8663
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	8663
380-162301-1 MS	MW 1	Dissolved	Water	1640	8663
380-162301-1 MS	MW 1	Dissolved	Water	1640	8663
380-162301-1 MSD	MW 1	Dissolved	Water	1640	8663
380-162301-1 MSD	MW 1	Dissolved	Water	1640	8663

Prep Batch: 8770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Dissolved	Water	1640	
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Dissolved	Water	1640	8770
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	8770
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	8770
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	8770

Filtration Batch: 607199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Dissolved	Water	Filtration	
MB 570-607199/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-607199/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-607199/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Filtration Batch: 607221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Dissolved	Water	Filtration	
MB 570-607221/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Analysis Batch: 607416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Dissolved	Water	6020	607199
MB 570-607199/1-A	Method Blank	Dissolved	Water	6020	607199
LCS 570-607199/2-A	Lab Control Sample	Dissolved	Water	6020	607199
LCSD 570-607199/3-A	Lab Control Sample Dup	Dissolved	Water	6020	607199

Analysis Batch: 607956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-607221/1-A	Method Blank	Dissolved	Water	6010D	607221
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	6010D	607221
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	6010D	607221

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Metals

Analysis Batch: 608021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Dissolved	Water	6010D	607221

General Chemistry

Prep Batch: 602857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	1664A	
MB 570-602857/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-602857/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-602857/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 603475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	1664A	602857
MB 570-602857/1-A	Method Blank	Total/NA	Water	1664A	602857
LCS 570-602857/2-A	Lab Control Sample	Total/NA	Water	1664A	602857
LCSD 570-602857/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	602857

Analysis Batch: 603667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	SM 2540C	
MB 570-603667/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-603667/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-603667/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
380-162301-1 DU	MW 1	Total/NA	Water	SM 2540C	

Prep Batch: 605732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	351.2	
MB 570-605732/3-A	Method Blank	Total/NA	Water	351.2	
LCS 570-605732/4-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-605732/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	

Prep Batch: 606240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	410.4	
MB 570-606240/3-A	Method Blank	Total/NA	Water	410.4	
LCS 570-606240/4-A	Lab Control Sample	Total/NA	Water	410.4	
LCSD 570-606240/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 606279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	410.4	606240
MB 570-606240/3-A	Method Blank	Total/NA	Water	410.4	606240
LCS 570-606240/4-A	Lab Control Sample	Total/NA	Water	410.4	606240
LCSD 570-606240/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	606240

Analysis Batch: 606746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	351.2	605732
MB 570-605732/3-A	Method Blank	Total/NA	Water	351.2	605732

General Chemistry (Continued)

Analysis Batch: 606746 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-605732/4-A	Lab Control Sample	Total/NA	Water	351.2	605732
LCSD 570-605732/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	605732

Analysis Batch: 606867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	SM 2320B	
MB 570-606867/10	Method Blank	Total/NA	Water	SM 2320B	
LCS 570-606867/8	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 570-606867/9	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 609968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	SM 2520B	
LCS 570-609968/3	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 570-609968/4	Lab Control Sample Dup	Total/NA	Water	SM 2520B	

Analysis Batch: 613731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	SM 5310C	
MB 570-613731/6	Method Blank	Total/NA	Water	SM 5310C	
LCS 570-613731/7	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 570-613731/8	Lab Control Sample Dup	Total/NA	Water	SM 5310C	

Rad

Prep Batch: 729202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	Evaporation	
MB 160-729202/1-A	Method Blank	Total/NA	Water	Evaporation	
LCSB 160-729202/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSBD 160-729202/3-A	Lab Control Sample Dup	Total/NA	Water	Evaporation	

Prep Batch: 729203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	PrecSep-21	
MB 160-729203/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-729203/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 729204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	PrecSep_0	
MB 160-729204/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-729204/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 730442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	PrecSep-7	
MB 160-730442/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-730442/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	
LCSD 160-730442/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-7	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Rad

Prep Batch: 730590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	ExtChrom	
MB 160-730590/1-A	Method Blank	Total/NA	Water	ExtChrom	
LCS 160-730590/2-A	Lab Control Sample	Total/NA	Water	ExtChrom	

Prep Batch: 730803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162301-1	MW 1	Total/NA	Water	Coprecipitation	
MB 160-730803/1-A	Method Blank	Total/NA	Water	Coprecipitation	
LCS 160-730803/2-A	Lab Control Sample	Total/NA	Water	Coprecipitation	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Client Sample ID: MW 1

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162301-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	601839	GC3Z	EET CAL 4	07/24/25 22:33
Total/NA	Prep	625.1			601826	OAJ3	EET CAL 4	07/25/25 08:31
Total/NA	Analysis	625.1		1	604563	J7WE	EET CAL 4	07/30/25 22:43
Total/NA	Prep	625.1			677485	QKX3	ELLE	07/29/25 07:35
Total/NA	Analysis	625.1 SIM		1	677827	TB8M	ELLE	07/29/25 22:11
Total/NA	Analysis	8015B		1	606201	W4LC	EET CAL 4	08/02/25 23:54
Total/NA	Prep	608			602264	H1SH	EET CAL 4	07/25/25 10:39
Total/NA	Analysis	608.3		1	607971	N5Y3	EET CAL 4	08/06/25 23:12
Total/NA	Prep	608			602264	H1SH	EET CAL 4	07/25/25 10:39
Total/NA	Analysis	608.3		1	603939	P2HW	EET CAL 4	07/29/25 15:44
Total/NA	Prep	8011			677413	USL7	ELLE	07/28/25 23:29
Total/NA	Analysis	8011		1	677684	URS0	ELLE	07/29/25 13:37
Total/NA	Prep	3510C			603849	TVD6	EET CAL 4	07/29/25 09:24
Total/NA	Analysis	8015B		1	607769	NR	EET CAL 4	08/06/25 18:51
Total/NA	Prep	8015 DAI Prep			680235	WZ6J	ELLE	08/04/25 10:29
Total/NA	Analysis	8015C		1	680325	LXF2	ELLE	08/04/25 18:38
Total/NA	Analysis	300.0		10	603730	UIP1	EET CAL 4	07/29/25 08:01
Total/NA	Analysis	300.0	DL	200	603730	UIP1	EET CAL 4	07/29/25 09:02
Dissolved	Analysis	1631E		1	8442	AJD	EET SSM	07/28/25 15:40
Dissolved	Prep	1640			8663	V1R	EET SSM	08/06/25 00:00
Dissolved	Analysis	1640		1	8697	CL	EET SSM	08/07/25 00:42
Dissolved	Prep	1640			8663	V1R	EET SSM	08/06/25 00:00
Dissolved	Analysis	1640		10	8697	CL	EET SSM	08/07/25 10:35
Dissolved	Prep	1640			8770	V1R	EET SSM	08/11/25 00:00
Dissolved	Analysis	1640		1	8836	V1R	EET SSM	08/12/25 00:51
Dissolved	Filtration	Filtration			607221	F4JD	EET CAL 4	08/05/25 12:19
Dissolved	Analysis	6010D		5	608021	P1R	EET CAL 4	08/06/25 15:33
Dissolved	Filtration	Filtration			607199	F4JD	EET CAL 4	08/05/25 12:04
Dissolved	Analysis	6020		20	607416	P1R	EET CAL 4	08/05/25 17:19
Total/NA	Prep	1664A			602857	S7HP	EET CAL 4	07/26/25 11:02
Total/NA	Analysis	1664A		1	603475	LM3A	EET CAL 4	07/28/25 13:49
Total/NA	Prep	351.2			605732	GG0B	EET CAL 4	08/01/25 12:27
Total/NA	Analysis	351.2		1	606746	GG0B	EET CAL 4	08/04/25 15:26
Total/NA	Analysis	410.4		1	606279	TP6R	EET CAL 4	08/03/25 08:20
Total/NA	Prep	410.4			606240	TP6R	EET CAL 4	08/03/25 08:40
Total/NA	Analysis	SM 2320B		1	606867	LNW3	EET CAL 4	08/04/25 19:48
Total/NA	Analysis	SM 2520B		1	609968	GG0B	EET CAL 4	08/11/25 14:18
Total/NA	Analysis	SM 2540C		1	603667	ZL7L	EET CAL 4	07/28/25 21:14
Total/NA	Analysis	SM 5310C		1	613731	U8XP	EET CAL 4	08/18/25 20:01
Total/NA	Prep	Evaporation			729202	OGC	EET SL	07/28/25 07:56
Total/NA	Analysis	900.0		1	729583	FLC	EET SL	07/29/25 18:19
Total/NA	Prep	PrecSep-21			729203	JTR	EET SL	07/28/25 08:03
Total/NA	Analysis	903.0		1	732633	SWS	EET SL	08/19/25 21:47

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Client Sample ID: MW 1

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162301-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			729204	JTR	EET SL	07/28/25 08:06
Total/NA	Analysis	904.0		1	732633	SWS	EET SL	08/19/25 11:57
Total/NA	Prep	PrecSep-7			730442	BMW	EET SL	08/04/25 11:23
Total/NA	Analysis	905		1	732445	SWS	EET SL	08/18/25 15:05
Total/NA	Analysis	Ra226_Ra228 Pos		1	732841	SCB	EET SL	08/20/25 12:37
Total/NA	Prep	Coprecipitation			730803	OGC	EET SL	08/06/25 08:27
Total/NA	Analysis	SM7110C		1	730988	SWS	EET SL	08/07/25 15:36
Total/NA	Prep	ExtChrom			730590	SEH	EET SL	08/05/25 13:07
Total/NA	Analysis	U-02-RC		1	731250	EJS	EET SL	08/10/25 12:04

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-07-25
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	08-10-25
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA011	08-11-25
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	07-31-26
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-08-26
Florida	NELAP	E87575	06-30-26
Louisiana (All)	NELAP	03073	07-01-26
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-26
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167-008	07-08-26
US Fish & Wildlife	US Federal Programs	A20571	06-30-26
USDA	US Federal Programs	525-23-4-22573	01-24-28
Washington	State	C788-23a	07-13-26
Wisconsin	State	399133460	08-31-26

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25 *
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	12-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25 *
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	ELLE
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
608.3	Organochlorine Pesticides in Water	EPA	EET CAL 4
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CAL 4
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
8015C	Glycols- Direct Injection (GC/FID)	SW846	ELLE
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1640	Metals (ICPMS)	EPA	EET SSM
6010D	Metals (ICP)	SW846	EET CAL 4
6020	Metals (ICP/MS)	SW846	EET CAL 4
1664A	HEM and SGT-HEM	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
410.4	COD	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EET CAL 4
SM 2520B	Salinity	SM	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
SM 5310C	TOC	SM	EET CAL 4
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
SM7110C	Gross Alpha by Co-Precipitation	SM	EET SL
U-02-RC	Uranium, Method U02	HASL	EET SL
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
410.4	COD	EPA	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	ELLE
8011	Microextraction	SW846	ELLE
8015 DAI Prep	Preparation, Direct Aqueous Injection	SW846	ELLE
Coprecipitation	Preparation, Coprecipitation	None	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
ExtChrom	Preparation, Extraction Chromatography Resin Actinide Separation	None	EET SL
Filtration	Sample Filtration	None	EET CAL 4
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Method	Method Description	Protocol	Laboratory

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

HASL = Health And Safety Laboratory

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162301-1
SDG: MW 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-162301-1	MW 1	Water	07/22/25 10:30	07/23/25 09:30	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300, SM2520B, SM4500_SIO2 Br, Cl, F, SO4, Si, Salinity, Alkalinity	351.2- Total Kjeldahl Nitrogen (TKN)	410.4_LL Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900.0 - Gross Beta Only	903.0 Ra226, 905_Sr90	904.0 - Radium-228	Ra226_228GFPC_P - Local Method	1640 dissolved Metals (15): Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Sr, Ag, U, V, Zn	1631E - Dissolved Mercury, Total	6010D - Dissolved Metals (6). Ca, Fe, Li, Mg, K, Na	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code.				N	S	S	S	D	D	D	D	N	D	A	D		
MW1	7/22/25	10:30	G	Saltwater			2	1	1	3	1	1	2	1	0	1	1	1	34	Samples not field filtered Please filter in lab as necessary.
			~~G~~	~~Saltwater~~			~~2~~	~~1~~	~~1~~	~~3~~	~~1~~	~~1~~	~~2~~	~~1~~	~~0~~	~~1~~	~~1~~	~~1~~	~~34~~	~~Samples not field filtered Please filter in lab as necessary~~

380-162301 COC

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment: FEDEX Priority Overnight 3913 1720 3067

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7/22/25 14:30	INTERA Inc	[signature]	07/23/25 09:30	EEAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No | Cooler Temperature(s) °C and Other Remarks: 751A 7.4°-0.0°=7.4° BEAC DRAWER

Ver: 01/16/2019

8/21/2025

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s)	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E NaHSO4
F MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V MCAA
W - pH 4-5
Y - Trizma
Z other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	625 1 SVOCs	8015B/8260D_Hawaii GRO C4-12	8015B_Hawaii DRO C8-24, CRO C24-44	1664A Oil and Grease	608.3 Organochlorine Pesticides	608 3 PCBs	625 1 Sim 1,4-dioxane	8011 Ethylene Dibromide	8015C Ethylene Glycol	U02 Isotopic Uranium	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	A	N	A	N	S	N	N	N	A	N	D		
MW 1	7/22/25	10:30	G	Saltwater			1	3	1	2	2	1	1	1	2	2	2	1	34	Samples not field filtered Please filter in lab as necessary.
			~~G~~	Saltwater			1	3	1	2	2	1	1	1	2	2	2	1	34	~~Samples not field filtered Please filter in lab as necessary~~

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II, III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time	Method of Shipment: FEDEX Priority Overnight 3913 1720 3067			
Relinquished by:	Date/Time: 7/22/25 14:30	Company: INTERA Inc	Received by:	Date/Time: 07/23/25 09:30	Company: EEAP	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: (751A) 7.4° - 0.0° = 7.4° REAL-THAWED			

Ver: 01/16/2019

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234500.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162301-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/19/2025			
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes: -

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM7110C/COPRECIPGross Alpha by Co-Precip	900.0/EvaporationGross Beta Only	903.0/PrecSep_21Radium-226	904.0/PrecSep_0Radium-228	Ra226_228GFPC_P	U02/ExtChrom_ActinStandard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
MW1 (380-162301-1)	7/22/25	10:30 Hawaiian	G	Water			X	X	X	X	X	X	6	High TDS sample, dilute accordingly, SDWA. High TDS sample, dilute

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
DO	7/24/25 1133	POM	M. Pinetta	JUL 28 2025 0820	
			Meadow Pinette		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234495.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162301-1
Address: 5755 8th Street East, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MW1 (380-162301-1)	7/22/25	10:30 Hawaiian	G	Water			X	X		High TDS sample, dilute accordingly
										small blue Coleman

Therm. ID: SC03 Cust. Seal: Y / N
Uncorr./Corr. Temp: 2.5 / 3.1 °C
Delivery: UPS / FedEx / Other: ____
Ice Type: Blue / Dry / Wet / None
Label Ver.: JS Packing: Bubble
7/25/25

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:		
Relinquished by: DO	Date/Time: 7/24/25 1036	Company POM	Received by: Jesse Sifa		Date/Time: 7/25/25 1800	Company EETN
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Ver: 10/10/2024

FedEx PO TRK#: 4612 8636 4869

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

8/21/2025

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234495.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162301-1
Address: 5755 8th Street East, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total	Number of Containers	Special Instructions/Note:
			Preservation Code:							
MW1 (380-162301-1)	7/22/25	10:30 Hawaiian	G	Water			X	X		High TDS sample, dilute accordingly

small blue Coleman

Therm. ID: SC03 Cust. Seal: Y / (N)
Uncorr./Corr. Temp 2.5 / 3.1 °C
Delivery: UPS / (FedEx) / Other: ____
Ice Type: Blue / Dry / (Wet) / None
Label Ver.: J5 Packing: Bubble
7/25/25

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: DO	Date/Time: 7/24/25 1036	Company POM	Received by: Jesse Sij	Date/Time: 7/25/25 1[illegible]	Company EETN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

FedEx PO TRK#: 4612 8636 4869

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234484.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162301-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW1 (380-162301-1)	7/22/25	10:30 Hawaiian	G	Water			X	X	X	6	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
DO	7/24/25 0909	POM			
				7/25/25 09:40	BLET

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R.3.0 C.3.0

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Envir

Loc: 380
162301

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234474.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162301-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	608.3_PCB/608._Prep_PCBRoutine PCB Aroclor List	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	8015B_GRO/5030C(MOD) Gasoline Range Organics	8015B_DRO/3510C_LV(DRO (C10-C28)	8015B_DRO/3510C_LV(MOD) Crude Oil (C7-C44)	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
MW1 (380-162301-1)	7/22/25	10:30 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	20	High TDS sample, dilute accordingly

380-162301 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Xa	7/24/25 1100	EEA	[illegible]	7/24/25 1100	EEA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.9 / 0.9 IR92

Ver: 10/10/2024

8/21/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234474.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162301-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CalcdTotal Dissolved Solids (TDS)	5310CTOC, Standard analysis, 3 replicates	6010D/3005A(MOD) Custom 6010D Metals List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW1 (380-162301-1)	7/22/25	10:30 Hawaiian	G	Water			X	X	X	20	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Xan	7/24/25 1100	EEA	[signature]	7/24/25 11:00	EEA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

eurofins | Environment Testing

Date:	7/25/2025
End Time:	19:25
KI Paper Lot:	N/A
Analyst:	JS
Pipette:	N/A

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	88948
zzzzzzzzzzzzzzzz	zzzzzzzzzzzzzzzzzzzzzzzz	zzzzzzzzzz
zzzzzzzzzzzzzzzz	zzzzzzzzzzzzzzzzzzzzzzzz	zzzzzzzzzz
zzzzzzzzzzzzzzzz	zzzzzzzzzzzzzzzzzzzzzzzz	zzzzzzzzzz

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-162301-N-1	A	Y	5/2	

JS 7/25/25

eurofins | Environment Testing

Date:	7/29/2025
End Time:	13:07
pH Paper Lot:	hc441704
Analyst:	R
Pipette:	~~NO~~

MP_TM06
R 7/29/25

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	~~no~~ 83146 R 7/29/25
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-162301-AE-1	72	<2	A	.5	ND

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162301-1
SDG Number: MW 1

Login Number: 162301
List Number: 1
Creator: Segura, Ryan

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162301-1
SDG Number: MW 1

Login Number: 162301
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 07/24/25 12:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162301-1
SDG Number: MW 1

Login Number: 162301
List Number: 6
Creator: Le, Sunny

List Source: Eurofins Calscience
List Creation: 08/05/25 10:17 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162301-1
SDG Number: MW 1

Login Number: 162301
List Number: 3
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 07/25/25 10:23 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162301-1
SDG Number: MW 1

Login Number: 162301
List Number: 5
Creator: Singh, Jaskaran

List Source: Eurofins Seattle Specialty Metals
List Creation: 07/25/25 08:03 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162301-1
SDG Number: MW 1

Login Number: 162301
List Number: 4
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 07/25/25 12:22 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

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JOB DESCRIPTION

Kalealoa Desalination Project
MW 2

JOB NUMBER

380-162271-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Authorized for release by
Maria Lopez, Project Manager
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Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 9
Client Sample Results 10
Surrogate Summary 18
Tracer Carrier Summary 21
QC Sample Results 22
QC Association Summary 51
Lab Chronicle 58
Certification Summary 60
Method Summary 63
Sample Summary 65
Chain of Custody 66
Field Data Sheets 86
Receipt Checklists 90

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

GC Semi VOA

Qualifier	Qualifier Description
B	Analyte was found in the associated method blank.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F1	MS and/or MSD recovery exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-162271-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 7/23/2025 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 11.3°C.

Receipt Exceptions
The following sample was received outside of holding time: MW 2 (380-162271-1).

Received Two Amber glass 1 liter unpreserved. Sample date : 07/22/2025

GC/MS VOA
Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-601839. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 625.1: The following sample was received outside of holding time: MW 2 (380-162271-1).

Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-614711. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 625

Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-614711 and analytical batch 570-615413 recovered outside control limits for the following analytes: 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 2-Chloronaphthalene, Alpha-Terpineol, Aniline, Benzidine, N-Nitrosodimethylamine and Pyridine.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015B_DRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-603849. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method: 8015B_DRO

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015C_DAI_GLY: The following sample was diluted due to the nature of the sample matrix: MW 2 (380-162271-1).

Elevated reporting limits (RLs) are provided.

Method 8015C_DAI_GLY: The method blank for preparation batch 410-680235 contained Ethylene glycol above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
Method 608.3_PCB: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-610003. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 608.3_PCB: The following sample was prepared outside of preparation holding time due to Client requested the analysis after analytical holding time had expired.: MW 2 (380-162271-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 1640 - Dissolved: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 350-8663 and analytical batch 350-8697 were outside control limits: (380-162271-S-1-B MS). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 6010D - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: MW 2 (380-162271-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6010D - Dissolved: The low level check standard recovery associated with batch 570-608018 is outside the acceptance criteria for the following analyte(s): < Magnesium>. All samples have result higher than the continuing calibration verification (CCV).

Method 6010D - Dissolved: The continuing calibration blank (CCB) for analytical batch 570-608018 contained Sodium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6020 - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: MW 2 (380-162271-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6020 - Dissolved: The following sample was diluted due to the nature of the sample matrix: MW 2 (380-162271-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-603805.
The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 5310C: Reanalysis of the following sample was performed outside of the analytical holding time due to instrument error during initial analysis: MW 2 (380-162271-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Alpha Spectroscopy
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 900.0: GAB prep batch 160-729202
Insufficient sample volume was available to preform a sample duplicate for the samples. A laboratory control sample duplicate

(LCS/LCSD) was prepared instead to demonstrate batch precision.

Method 900.0: Gross Alpha Beta Batch 729202

The detection goal was not met for the following sample due to a reduction of the sample size attributed to high residual mass: MW 2 (380-162271-1). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium-228 729204
The detection goal was not met for the following sample due to the reduced sample volume in prep attributed to the presence of matrix interferences: MW 2 (380-162271-1). Analytical results are reported with the detection limit achieved.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Client Sample ID: MW 2 — Lab Sample ID: 380-162271-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
TPH as Crude Oil (C7-C44)	240		220		ug/L	1		8015B	Total/NA
Diesel Range Organics [C10-C28]	170		44		ug/L	1		8015B	Total/NA
Bromide	7.3		0.50		mg/L	5		300.0	Total/NA
Sulfate	410		5.0		mg/L	5		300.0	Total/NA
Chloride - DL	2400		100		mg/L	100		300.0	Total/NA
Mercury	0.72		0.50		ng/L	1		1631E	Dissolved
Arsenic	2.7		0.70		ug/L	1		1640	Dissolved
Lead	0.059		0.050		ug/L	1		1640	Dissolved
Aluminum	5.9		5.0		ug/L	1		1640	Dissolved
Barium	35	F1	5.0		ug/L	10		1640	Dissolved
Iron	700		60		ug/L	10		1640	Dissolved
Manganese	39		0.50		ug/L	10		1640	Dissolved
Vanadium	1.9		1.0		ug/L	1		1640	Dissolved
Calcium	220		2.0		mg/L	1		6010D	Dissolved
Magnesium	160	^3+	0.50		mg/L	1		6010D	Dissolved
Potassium	50		2.0		mg/L	1		6010D	Dissolved
SiO2	37		0.54		mg/L	1		6010D	Dissolved
Sodium	1300	^2	4.0		mg/L	2		6010D	Dissolved
Strontium	3.7		0.010		mg/L	1		6010D	Dissolved
Total Kjeldahl Nitrogen	0.20		0.20		mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	11		10		mg/L	1		410.4	Total/NA
Alkalinity, Total (As CaCO3)	440		5.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate (as CaCO3)	440		5.0		mg/L	1		SM 2320B	Total/NA
Salinity	4.7		2.0		psu	1		SM 2520B	Total/NA
Total Dissolved Solids	5300		100		mg/L	1		SM 2540C	Total/NA
Silica (SiO2), molybdate-reactive	35		2.0		mg/L	2		SM4500 SiO2 C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162271-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/24/25 22:11	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/24/25 22:11	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/24/25 22:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/24/25 22:11	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/24/25 22:11	1
1,1-Dichloroethane	ND		1.0		ug/L			07/24/25 22:11	1
1,1-Dichloroethene	ND		1.0		ug/L			07/24/25 22:11	1
1,1-Dichloropropene	ND		1.0		ug/L			07/24/25 22:11	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/24/25 22:11	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/24/25 22:11	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/24/25 22:11	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/24/25 22:11	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/24/25 22:11	1
1,2-Dibromoethane	ND		1.0		ug/L			07/24/25 22:11	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/24/25 22:11	1
1,2-Dichloroethane	ND		0.50		ug/L			07/24/25 22:11	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/24/25 22:11	1
1,2-Dichloropropane	ND		1.0		ug/L			07/24/25 22:11	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/24/25 22:11	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/24/25 22:11	1
1,3-Dichloropropane	ND		1.0		ug/L			07/24/25 22:11	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/24/25 22:11	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/24/25 22:11	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/24/25 22:11	1
2,2-Dichloropropane	ND		1.0		ug/L			07/24/25 22:11	1
2-Butanone	ND		10		ug/L			07/24/25 22:11	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			07/24/25 22:11	1
2-Chlorotoluene	ND		1.0		ug/L			07/24/25 22:11	1
2-Hexanone	ND		10		ug/L			07/24/25 22:11	1
4-Chlorotoluene	ND		1.0		ug/L			07/24/25 22:11	1
4-Methyl-2-pentanone	ND		10		ug/L			07/24/25 22:11	1
Acetone	ND		12		ug/L			07/24/25 22:11	1
Benzene	ND		0.50		ug/L			07/24/25 22:11	1
Bromobenzene	ND		1.0		ug/L			07/24/25 22:11	1
Bromochloromethane	ND		1.0		ug/L			07/24/25 22:11	1
Bromodichloromethane	ND		1.0		ug/L			07/24/25 22:11	1
Bromoform	ND		1.0		ug/L			07/24/25 22:11	1
Bromomethane	ND		5.0		ug/L			07/24/25 22:11	1
Carbon disulfide	ND		10		ug/L			07/24/25 22:11	1
Carbon tetrachloride	ND		0.50		ug/L			07/24/25 22:11	1
Chlorobenzene	ND		1.0		ug/L			07/24/25 22:11	1
Chloroethane	ND		1.0		ug/L			07/24/25 22:11	1
Chloroform	ND		1.0		ug/L			07/24/25 22:11	1
Chloromethane	ND		1.0		ug/L			07/24/25 22:11	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/24/25 22:11	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/24/25 22:11	1
Dibromochloromethane	ND		1.0		ug/L			07/24/25 22:11	1
Dibromomethane	ND		1.0		ug/L			07/24/25 22:11	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/24/25 22:11	1

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162271-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/24/25 22:11	1
Ethanol	ND		100		ug/L			07/24/25 22:11	1
Ethylbenzene	ND		1.0		ug/L			07/24/25 22:11	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			07/24/25 22:11	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/24/25 22:11	1
Isopropanol	ND		50		ug/L			07/24/25 22:11	1
Isopropylbenzene	ND		1.0		ug/L			07/24/25 22:11	1
m,p-Xylene	ND		1.0		ug/L			07/24/25 22:11	1
Methylene Chloride	ND		2.0		ug/L			07/24/25 22:11	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			07/24/25 22:11	1
Naphthalene	ND		10		ug/L			07/24/25 22:11	1
n-Butylbenzene	ND		1.0		ug/L			07/24/25 22:11	1
N-Propylbenzene	ND		1.0		ug/L			07/24/25 22:11	1
o-Xylene	ND		1.0		ug/L			07/24/25 22:11	1
p-Isopropyltoluene	ND		1.0		ug/L			07/24/25 22:11	1
sec-Butylbenzene	ND		1.0		ug/L			07/24/25 22:11	1
Styrene	ND		1.0		ug/L			07/24/25 22:11	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			07/24/25 22:11	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			07/24/25 22:11	1
tert-Butylbenzene	ND		1.0		ug/L			07/24/25 22:11	1
Tetrachloroethene	ND		1.0		ug/L			07/24/25 22:11	1
Tetrahydrofuran	ND		10		ug/L			07/24/25 22:11	1
Toluene	ND		1.0		ug/L			07/24/25 22:11	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/24/25 22:11	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/24/25 22:11	1
Trichloroethene	ND		1.0		ug/L			07/24/25 22:11	1
Trichlorofluoromethane	ND		5.0		ug/L			07/24/25 22:11	1
Trihalomethanes, Total	ND		1.0		ug/L			07/24/25 22:11	1
Vinyl acetate	ND		10		ug/L			07/24/25 22:11	1
Vinyl chloride	ND		0.50		ug/L			07/24/25 22:11	1
Xylenes, Total	ND		1.0		ug/L			07/24/25 22:11	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*07/24/25 22:11*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*07/24/25 22:11*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*07/24/25 22:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*60 - 140*		*07/24/25 22:11*	*1*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*		*07/24/25 22:11*	*1*
Dibromofluoromethane	*105*		*60 - 140*		*07/24/25 22:11*	*1*
Toluene-d8 (Surr)	*102*		*60 - 140*		*07/24/25 22:11*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.31		ug/L		07/29/25 07:35	07/29/25 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*76*		*30 - 187*	*07/29/25 07:35*	*07/29/25 21:49*	*1*
Benzo(a)pyrene-d12 (Surr)	*71*		*32 - 194*	*07/29/25 07:35*	*07/29/25 21:49*	*1*

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162271-1

Matrix: Water

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Methylnaphthalene-d10	*60*		*45 - 130*	*07/29/25 07:35*	*07/29/25 21:49*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
1,2-Dichlorobenzene	ND	H *1	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
1,2-Diphenylhydrazine(as Azobenzene)	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
1,3-Dichlorobenzene	ND	H *1	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
1,4-Dichlorobenzene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
1-Methylnaphthalene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2,4,5-Trichlorophenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2,4,6-Trichlorophenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2,4-Dichlorophenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2,4-Dimethylphenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2,4-Dinitrophenol	ND	H	50	ug/L		08/21/25 08:00	08/22/25 13:33	1
2,4-Dinitrotoluene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2,6-Dichlorophenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2,6-Dinitrotoluene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2-Chloronaphthalene	ND	H *1	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2-Chlorophenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2-Methylnaphthalene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2-Methylphenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2-Nitroaniline	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
2-Nitrophenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
3,3'-Dichlorobenzidine	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
3/4-Methylphenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
3-Nitroaniline	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
4,6-Dinitro-2-methylphenol	ND	H	50	ug/L		08/21/25 08:00	08/22/25 13:33	1
4-Bromophenyl phenyl ether	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
4-Chloro-3-methylphenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
4-Chloroaniline	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
4-Chlorophenyl phenyl ether	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
4-Nitroaniline	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
4-Nitrophenol	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Acenaphthene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Acenaphthylene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Acetophenone	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Alpha-Terpineol	ND	H *1	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Aniline	ND	H *1	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Anthracene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Azobenzene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Benzidine	ND	H *1	50	ug/L		08/21/25 08:00	08/22/25 13:33	1
Benzo[a]anthracene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Benzo[a]pyrene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Benzo[b]fluoranthene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Benzo[g,h,i]perylene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Benzo[k]fluoranthene	ND	H	9.9	ug/L		08/21/25 08:00	08/22/25 13:33	1
Benzoic acid	ND	H	50	ug/L		08/21/25 08:00	08/22/25 13:33	1

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162271-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzyl alcohol	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Bis (2-chloroethoxy) methane	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
bis (2-chloroisopropyl) ether	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Bis(2-chloroethyl)ether	ND	H	25		ug/L		08/21/25 08:00	08/22/25 13:33	1
Bis(2-ethylhexyl) phthalate	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Butyl benzyl phthalate	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Carbazole	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Chrysene	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Dibenz(a,h)anthracene	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Dibenzofuran	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Diethyl phthalate	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Dimethyl phthalate	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Di-n-butyl phthalate	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Di-n-octyl phthalate	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Fluoranthene	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Fluorene	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Hexachloro-1,3-butadiene	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Hexachlorobenzene	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Hexachlorocyclopentadiene	ND	H	25		ug/L		08/21/25 08:00	08/22/25 13:33	1
Hexachloroethane	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Indeno[1,2,3-cd]pyrene	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Isophorone	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Naphthalene	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
n-Decane	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Nitrobenzene	ND	H	25		ug/L		08/21/25 08:00	08/22/25 13:33	1
N-Nitrosodimethylamine	ND	H *1	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
N-Nitrosodi-n-propylamine	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
N-Nitrosodiphenylamine	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
n-Octadecane	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Pentachlorophenol	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Phenanthrene	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Phenol	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Pyrene	ND	H	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1
Pyridine	ND	H *1	9.9		ug/L		08/21/25 08:00	08/22/25 13:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*	*H*	*ug/L*			*58-90-2*	*08/21/25 08:00*	*08/22/25 13:33*	*1*
2,3,4-Trichlorophenol TIC	*ND*	*H*	*ug/L*			*15950-66-0*	*08/21/25 08:00*	*08/22/25 13:33*	*1*
Phenylacetic Acid TIC	*ND*	*H*	*ug/L*		*8.64*	*103-82-2*	*08/21/25 08:00*	*08/22/25 13:33*	*1*
2,3,6-Trichlorophenol TIC	*ND*	*H*	*ug/L*			*933-75-5*	*08/21/25 08:00*	*08/22/25 13:33*	*1*
2,3,7,8-TCDD TIC	*ND*	*H*	*ug/L*			*1746-01-6*	*08/21/25 08:00*	*08/22/25 13:33*	*1*
3,4,5-Trichlorophenol TIC	*ND*	*H*	*ug/L*			*609-19-8*	*08/21/25 08:00*	*08/22/25 13:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*76*		*33 - 139*	*08/21/25 08:00*	*08/22/25 13:33*	*1*
2-Fluorobiphenyl (Surr)	*75*		*33 - 126*	*08/21/25 08:00*	*08/22/25 13:33*	*1*
2-Fluorophenol (Surr)	*57*		*12 - 120*	*08/21/25 08:00*	*08/22/25 13:33*	*1*
Nitrobenzene-d5 (Surr)	*74*		*36 - 120*	*08/21/25 08:00*	*08/22/25 13:33*	*1*
Phenol-d6 (Surr)	*29*		*10 - 120*	*08/21/25 08:00*	*08/22/25 13:33*	*1*
p-Terphenyl-d14 (Surr)	*85*		*47 - 131*	*08/21/25 08:00*	*08/22/25 13:33*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162271-1

Matrix: Water

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			08/02/25 23:35	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			08/02/25 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*20 - 144*		*08/02/25 23:35*	*1*

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND	H	0.10	ug/L		08/11/25 15:29	08/12/25 17:00	1
Aroclor-1221	ND	H	0.10	ug/L		08/11/25 15:29	08/12/25 17:00	1
Aroclor-1232	ND	H	0.10	ug/L		08/11/25 15:29	08/12/25 17:00	1
Aroclor-1242	ND	H	0.10	ug/L		08/11/25 15:29	08/12/25 17:00	1
Aroclor-1248	ND	H	0.10	ug/L		08/11/25 15:29	08/12/25 17:00	1
Aroclor-1254	ND	H	0.10	ug/L		08/11/25 15:29	08/12/25 17:00	1
Aroclor-1260	ND	H	0.10	ug/L		08/11/25 15:29	08/12/25 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*140*		*20 - 154*	*08/11/25 15:29*	*08/12/25 17:00*	*1*
Tetrachloro-m-xylene (Surr)	*79*		*20 - 139*	*08/11/25 15:29*	*08/12/25 17:00*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		07/28/25 23:29	07/29/25 13:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*102*		*46 - 136*	*07/28/25 23:29*	*07/29/25 13:20*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*98*		*46 - 136*	*07/28/25 23:29*	*07/29/25 13:20*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	**240**		220	ug/L		07/29/25 17:44	08/06/25 19:13	1
Diesel Range Organics [C10-C28]	**170**		44	ug/L		07/29/25 17:44	08/06/25 19:13	1
C24-C44	ND		220	ug/L		07/29/25 17:44	08/06/25 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*94*		*53 - 151*	*07/29/25 17:44*	*08/06/25 19:13*	*1*
n-Octacosane (Surr)	*94*		*53 - 151*	*07/29/25 17:44*	*08/06/25 19:13*	*1*

Method: SW846 8015C - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND	B	1300	mg/L		08/04/25 10:29	08/04/25 18:24	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*79*		*10 - 130*	*08/04/25 10:29*	*08/04/25 18:24*	*100*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**7.3**		0.50	mg/L			07/29/25 20:40	5
Fluoride	ND		0.50	mg/L			07/29/25 20:40	5
Sulfate	**410**		5.0	mg/L			07/29/25 20:40	5

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162271-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2400		100	mg/L			07/29/25 20:56	100

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.72		0.50	ng/L			07/28/25 13:56	1

Method: EPA 1640 - Metals (ICPMS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		0.70	ug/L		08/06/25 00:00	08/07/25 00:00	1
Cadmium	ND		0.020	ug/L		08/06/25 00:00	08/07/25 00:00	1
Chromium	ND		1.0	ug/L		08/06/25 00:00	08/07/25 00:00	1
Copper	ND		0.50	ug/L		08/06/25 00:00	08/07/25 00:00	1
Lead	0.059		0.050	ug/L		08/06/25 00:00	08/07/25 00:00	1
Silver	ND		1.0	ug/L		08/06/25 00:00	08/07/25 00:00	1
Zinc	ND		1.0	ug/L		08/06/25 00:00	08/07/25 00:00	1
Aluminum	5.9		5.0	ug/L		08/06/25 00:00	08/07/25 00:00	1
Barium	35	F1	5.0	ug/L		08/06/25 00:00	08/07/25 09:52	10
Iron	700		60	ug/L		08/11/25 00:00	08/12/25 15:52	10
Manganese	39		0.50	ug/L		08/06/25 00:00	08/07/25 09:52	10
Selenium	ND		0.70	ug/L		08/06/25 00:00	08/07/25 00:00	1
Vanadium	1.9		1.0	ug/L		08/06/25 00:00	08/07/25 00:00	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	220		2.0	mg/L			08/06/25 12:01	1
Iron	ND		0.50	mg/L			08/06/25 12:01	1
Lithium	ND		0.050	mg/L			08/06/25 12:01	1
Magnesium	160	^3+	0.50	mg/L			08/06/25 12:01	1
Potassium	50		2.0	mg/L			08/06/25 12:01	1
SiO2	37		0.54	mg/L			08/06/25 12:01	1
Sodium	1300	^2	4.0	mg/L			08/06/25 12:11	2
Strontium	3.7		0.010	mg/L			08/06/25 12:01	1

Method: SW846 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		5.0	ug/L			08/06/25 10:41	5

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		0.98	mg/L		07/29/25 08:28	07/30/25 12:46	1
Total Kjeldahl Nitrogen (EPA 351.2	0.20		0.20	mg/L		08/01/25 12:27	08/04/25 15:26	1
Chemical Oxygen Demand (EPA 410.4)	11		10	mg/L		08/03/25 08:40	08/03/25 08:20	1
Alkalinity, Total (As CaCO3) (SM 2320B)	440		5.0	mg/L			08/04/25 20:25	1
Bicarbonate (as CaCO3) (SM 2320B)	440		5.0	mg/L			08/04/25 20:25	1
Carbonate (as CaCO3) (SM 2320B)	ND		5.0	mg/L			08/04/25 20:25	1
Hydroxide (as CaCO3) (SM 2320B)	ND		5.0	mg/L			08/04/25 20:25	1
Salinity (SM 2520B)	4.7		2.0	psu			08/11/25 14:18	1
Total Dissolved Solids (SM 2540C)	5300		100	mg/L			07/28/25 21:14	1

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162271-1

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic (SM 5310C)	ND	H	0.50		mg/L			08/20/25 18:33	1
Silica (SiO2), molybdate-reactive (SM4500 SiO2 C)	**35**		2.0		mg/L			07/28/25 16:06	2

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	**23.8**	**G**	7.78	8.14	4.00	10.1	pCi/L	07/28/25 07:56	07/29/25 18:18	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.915**		0.545	0.551	1.00	0.758	pCi/L	07/28/25 08:03	08/19/25 21:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*30 - 110*	*07/28/25 08:03*	*08/19/25 21:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.402	U G	0.602	0.603	1.00	1.02	pCi/L	07/28/25 08:06	08/19/25 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*30 - 110*	*07/28/25 08:06*	*08/19/25 11:57*	*1*
Y Carrier	*80.7*		*30 - 110*	*07/28/25 08:06*	*08/19/25 11:57*	*1*

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.794	U	1.58	1.58	3.00	2.70	pCi/L	07/31/25 08:19	08/11/25 15:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*82.1*		*30 - 110*	*07/31/25 08:19*	*08/11/25 15:03*	*1*
Y Carrier	*93.8*		*30 - 110*	*07/31/25 08:19*	*08/11/25 15:03*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.32**		0.812	0.817	5.00	1.02	pCi/L		08/20/25 12:37	1

Method: SM7110C - Gross Alpha by Co-Precipitation

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	**3.31**		1.29	1.34	3.00	0.854	pCi/L	08/06/25 08:27	08/07/25 15:35	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162271-1

Matrix: Water

Method: HASL U-02-RC - Uranium, Method U02

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Uranium-234	**0.696**		0.262	0.269	1.00	0.118	pCi/L	08/05/25 13:07	08/10/25 12:04	1
Uranium-235	0.100	U	0.118	0.119	1.00	0.129	pCi/L	08/05/25 13:07	08/10/25 12:04	1
Uranium-238	**0.516**		0.225	0.229	1.00	0.111	pCi/L	08/05/25 13:07	08/10/25 12:04	1
Total Uranium	**1.31**		0.365	0.373	1.00	0.129	pCi/L	08/05/25 13:07	08/10/25 12:04	1

Tracer	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Uranium-232	*76.1*		*30 - 110*	*08/05/25 13:07*	*08/10/25 12:04*	*1*

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
380-162271-1	MW 2	108	97	105	102
LCS 570-601839/1002	Lab Control Sample	110	101	104	100
LCSD 570-601839/3	Lab Control Sample Dup	113	100	105	101
MB 570-601839/6	Method Blank	108	94	106	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-162271-1	MW 2	76	75	57	74	29	85
LCS 570-614711/2-A	Lab Control Sample	78	76	83	68	53	92
LCSD 570-614711/3-A	Lab Control Sample Dup	79	71	59	83	40	73
MB 570-614711/1-A	Method Blank	77	81	68	72	31	89

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FLN10	BAPd12	MNPd10
Lab Sample ID	Client Sample ID	(30-187)	(32-194)	(45-130)
380-162271-1	MW 2	76	71	60
LCS 410-677485/2-A	Lab Control Sample	77	76	57
LCSD 410-677485/3-A	Lab Control Sample Dup	67	68	57
MB 410-677485/1-A	Method Blank	72	68	56

Surrogate Legend

FLN10 = Fluoranthene-d10 (Surr)
BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	BFB1 (20-144)
380-162271-1	MW 2	89
LCS 570-606201/35	Lab Control Sample	91
LCSD 570-606201/36	Lab Control Sample Dup	90
MB 570-606201/37	Method Blank	87

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)
380-162271-1	MW 2	140	79
LCS 570-610003/2-A	Lab Control Sample	95	92
LCSD 570-610003/3-A	Lab Control Sample Dup	84	83
MB 570-610003/1-A	Method Blank	88	78

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)
380-162271-1	MW 2	102	98
LCS 410-677413/2-A	Lab Control Sample	105	102
LCSD 410-677413/3-A	Lab Control Sample Dup	105	103
MB 410-677413/1-A	Method Blank	103	100

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	OTCSN1 (53-151)	OTCSN1 (53-151)
380-162271-1	MW 2	94	94
LCS 570-603849/2-A	Lab Control Sample	111	111
LCS 570-603849/4-A	Lab Control Sample	100	100
LCSD 570-603849/3-A	Lab Control Sample Dup	101	101
LCSD 570-603849/5-A	Lab Control Sample Dup	110	110
MB 570-603849/1-A	Method Blank	104	104

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Surrogate Summary

Client: INTERA Inc
Job ID: 380-162271-1
Project/Site: Kalealoa Desalination Project
SDG: MW 2

Method: 8015C - Glycols- Direct Injection (GC/FID)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**14BD1 (10-130)**							
380-162271-1	MW 2	79							
LCS 410-680235/2-A	Lab Control Sample	90							
MB 410-680235/1-A	Method Blank	76							

Surrogate Legend

14BD = 1,4-Butanediol

Tracer/Carrier Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba (30-110)							
380-162271-1	MW 2	92.4							
LCS 160-729203/2-A	Lab Control Sample	88.4							
MB 160-729203/1-A	Method Blank	87.2							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)						
380-162271-1	MW 2	92.4	80.7						
LCS 160-729204/2-A	Lab Control Sample	88.4	81.1						
MB 160-729204/1-A	Method Blank	87.2	74.8						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)						
380-162271-1	MW 2	82.1	93.8						
LCS 160-729827/2-A	Lab Control Sample	84.0	95.0						
MB 160-729827/1-A	Method Blank	88.8	96.4						

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: U-02-RC - Uranium, Method U02

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	U-232 (30-110)							
380-162271-1	MW 2	76.1							
LCS 160-730590/2-A	Lab Control Sample	70.6							
MB 160-730590/1-A	Method Blank	75.7							

Tracer/Carrier Legend

U-232 = Uranium-232

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-601839/6
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/24/25 18:38	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/24/25 18:38	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/24/25 18:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/24/25 18:38	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/24/25 18:38	1
1,1-Dichloroethane	ND		1.0		ug/L			07/24/25 18:38	1
1,1-Dichloroethene	ND		1.0		ug/L			07/24/25 18:38	1
1,1-Dichloropropene	ND		1.0		ug/L			07/24/25 18:38	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/24/25 18:38	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/24/25 18:38	1
1,2-Dibromoethane	ND		1.0		ug/L			07/24/25 18:38	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,2-Dichloroethane	ND		0.50		ug/L			07/24/25 18:38	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/24/25 18:38	1
1,2-Dichloropropane	ND		1.0		ug/L			07/24/25 18:38	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
1,3-Dichloropropane	ND		1.0		ug/L			07/24/25 18:38	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/24/25 18:38	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/24/25 18:38	1
2,2-Dichloropropane	ND		1.0		ug/L			07/24/25 18:38	1
2-Butanone	ND		10		ug/L			07/24/25 18:38	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			07/24/25 18:38	1
2-Chlorotoluene	ND		1.0		ug/L			07/24/25 18:38	1
2-Hexanone	ND		10		ug/L			07/24/25 18:38	1
4-Chlorotoluene	ND		1.0		ug/L			07/24/25 18:38	1
4-Methyl-2-pentanone	ND		10		ug/L			07/24/25 18:38	1
Acetone	ND		12		ug/L			07/24/25 18:38	1
Benzene	ND		0.50		ug/L			07/24/25 18:38	1
Bromobenzene	ND		1.0		ug/L			07/24/25 18:38	1
Bromochloromethane	ND		1.0		ug/L			07/24/25 18:38	1
Bromodichloromethane	ND		1.0		ug/L			07/24/25 18:38	1
Bromoform	ND		1.0		ug/L			07/24/25 18:38	1
Bromomethane	ND		5.0		ug/L			07/24/25 18:38	1
Carbon disulfide	ND		10		ug/L			07/24/25 18:38	1
Carbon tetrachloride	ND		0.50		ug/L			07/24/25 18:38	1
Chlorobenzene	ND		1.0		ug/L			07/24/25 18:38	1
Chloroethane	ND		1.0		ug/L			07/24/25 18:38	1
Chloroform	ND		1.0		ug/L			07/24/25 18:38	1
Chloromethane	ND		1.0		ug/L			07/24/25 18:38	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/24/25 18:38	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/24/25 18:38	1
Dibromochloromethane	ND		1.0		ug/L			07/24/25 18:38	1
Dibromomethane	ND		1.0		ug/L			07/24/25 18:38	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-601839/6
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			07/24/25 18:38	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/24/25 18:38	1
Ethanol	ND		100		ug/L			07/24/25 18:38	1
Ethylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			07/24/25 18:38	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/24/25 18:38	1
Isopropanol	ND		50		ug/L			07/24/25 18:38	1
Isopropylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
m,p-Xylene	ND		1.0		ug/L			07/24/25 18:38	1
Methylene Chloride	ND		2.0		ug/L			07/24/25 18:38	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			07/24/25 18:38	1
Naphthalene	ND		10		ug/L			07/24/25 18:38	1
n-Butylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
N-Propylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
o-Xylene	ND		1.0		ug/L			07/24/25 18:38	1
p-Isopropyltoluene	ND		1.0		ug/L			07/24/25 18:38	1
sec-Butylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
Styrene	ND		1.0		ug/L			07/24/25 18:38	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			07/24/25 18:38	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			07/24/25 18:38	1
tert-Butylbenzene	ND		1.0		ug/L			07/24/25 18:38	1
Tetrachloroethene	ND		1.0		ug/L			07/24/25 18:38	1
Tetrahydrofuran	ND		10		ug/L			07/24/25 18:38	1
Toluene	ND		1.0		ug/L			07/24/25 18:38	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/24/25 18:38	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/24/25 18:38	1
Trichloroethene	ND		1.0		ug/L			07/24/25 18:38	1
Trichlorofluoromethane	ND		5.0		ug/L			07/24/25 18:38	1
Trihalomethanes, Total	ND		1.0		ug/L			07/24/25 18:38	1
Vinyl acetate	ND		10		ug/L			07/24/25 18:38	1
Vinyl chloride	ND		0.50		ug/L			07/24/25 18:38	1
Xylenes, Total	ND		1.0		ug/L			07/24/25 18:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*60 - 140*		*07/24/25 18:38*	*1*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*07/24/25 18:38*	*1*
Dibromofluoromethane	*106*		*60 - 140*		*07/24/25 18:38*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*07/24/25 18:38*	*1*

Lab Sample ID: LCS 570-601839/1002
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			20.0	21.5		ug/L		108	60 - 140		
1,1,1-Trichloroethane			20.0	21.6		ug/L		108	70 - 130		
1,1,2,2-Tetrachloroethane			20.0	20.4		ug/L		102	60 - 140		
1,1,2-Trichloro-1,2,2-trifluoroetha ne			20.0	20.6		ug/L		103	60 - 140		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-601839/1002
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	20.0	21.6		ug/L		108	70 - 130
1,1-Dichloroethane	20.0	21.7		ug/L		108	70 - 130
1,1-Dichloroethene	20.0	22.2		ug/L		111	50 - 150
1,1-Dichloropropene	20.0	21.1		ug/L		106	60 - 140
1,2,3-Trichlorobenzene	20.0	19.6		ug/L		98	60 - 140
1,2,3-Trichloropropane	20.0	23.1		ug/L		116	60 - 140
1,2,4-Trichlorobenzene	20.0	19.0		ug/L		95	60 - 140
1,2,4-Trimethylbenzene	20.0	20.4		ug/L		102	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	22.7		ug/L		114	60 - 140
1,2-Dibromoethane	20.0	21.3		ug/L		107	60 - 140
1,2-Dichlorobenzene	20.0	20.4		ug/L		102	65 - 135
1,2-Dichloroethane	20.0	21.9		ug/L		109	70 - 130
1,2-Dichloropropane	20.0	21.6		ug/L		108	35 - 165
1,3,5-Trimethylbenzene	20.0	20.9		ug/L		104	60 - 140
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	70 - 130
1,3-Dichloropropane	20.0	21.2		ug/L		106	60 - 140
1,4-Dichlorobenzene	20.0	19.9		ug/L		100	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	21.1		ug/L		105	60 - 140
2,2-Dichloropropane	20.0	20.6		ug/L		103	60 - 140
2-Butanone	20.0	19.4		ug/L		97	60 - 140
2-Chloroethyl vinyl ether	20.0	19.7		ug/L		99	1 - 225
2-Chlorotoluene	20.0	20.9		ug/L		104	60 - 140
2-Hexanone	20.0	16.1		ug/L		80	60 - 140
4-Chlorotoluene	20.0	20.3		ug/L		101	60 - 140
4-Methyl-2-pentanone	20.0	18.1		ug/L		91	60 - 140
Acetone	20.0	21.5		ug/L		108	60 - 140
Benzene	20.0	21.2		ug/L		106	65 - 135
Bromobenzene	20.0	20.5		ug/L		103	60 - 140
Bromochloromethane	20.0	22.6		ug/L		113	60 - 140
Bromodichloromethane	20.0	21.6		ug/L		108	65 - 135
Bromoform	20.0	20.6		ug/L		103	70 - 130
Bromomethane	20.0	18.9		ug/L		95	15 - 185
Carbon disulfide	20.0	22.0		ug/L		110	60 - 140
Carbon tetrachloride	20.0	22.6		ug/L		113	70 - 130
Chlorobenzene	20.0	20.5		ug/L		103	65 - 135
Chloroethane	20.0	20.3		ug/L		101	40 - 160
Chloroform	20.0	21.5		ug/L		107	70 - 135
Chloromethane	20.0	19.8		ug/L		99	1 - 205
cis-1,2-Dichloroethene	20.0	20.9		ug/L		105	60 - 140
cis-1,3-Dichloropropene	20.0	21.6		ug/L		108	25 - 175
Dibromochloromethane	20.0	20.6		ug/L		103	70 - 135
Dibromomethane	20.0	21.3		ug/L		107	60 - 140
Dichlorodifluoromethane	20.0	19.7		ug/L		99	60 - 140
Di-isopropyl ether (DIPE)	20.0	21.6		ug/L		108	60 - 140
Ethanol	200	198		ug/L		99	60 - 140
Ethylbenzene	20.0	21.0		ug/L		105	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	20.8		ug/L		104	60 - 140
Hexachloro-1,3-butadiene	20.0	19.4		ug/L		97	60 - 140
Isopropanol	100	85.6		ug/L		86	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-601839/1002
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	20.0	20.9		ug/L		104	60 - 140
m,p-Xylene	40.0	42.6		ug/L		107	60 - 140
Methylene Chloride	20.0	21.3		ug/L		107	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	20.6		ug/L		103	60 - 140
Naphthalene	20.0	17.9		ug/L		89	60 - 140
n-Butylbenzene	20.0	19.5		ug/L		97	60 - 140
N-Propylbenzene	20.0	21.5		ug/L		107	60 - 140
o-Xylene	20.0	20.4		ug/L		102	60 - 140
p-Isopropyltoluene	20.0	20.0		ug/L		100	60 - 140
sec-Butylbenzene	20.0	20.2		ug/L		101	60 - 140
Styrene	20.0	21.3		ug/L		106	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	19.6		ug/L		98	60 - 140
tert-Butyl alcohol (TBA)	100	93.3		ug/L		93	60 - 140
tert-Butylbenzene	20.0	19.7		ug/L		99	60 - 140
Tetrachloroethene	20.0	20.7		ug/L		103	70 - 130
Tetrahydrofuran	20.0	20.5		ug/L		102	60 - 140
Toluene	20.0	20.3		ug/L		102	70 - 130
trans-1,2-Dichloroethene	20.0	21.5		ug/L		107	70 - 130
trans-1,3-Dichloropropene	20.0	22.1		ug/L		110	50 - 150
Trichloroethene	20.0	20.7		ug/L		103	65 - 135
Trichlorofluoromethane	20.0	19.9		ug/L		100	50 - 150
Vinyl acetate	20.0	19.6		ug/L		98	60 - 140
Vinyl chloride	20.0	20.3		ug/L		102	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*110*		*60 - 140*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*
Dibromofluoromethane	*104*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Lab Sample ID: LCSD 570-601839/3
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	21.1		ug/L		106	60 - 140	2	30
1,1,1-Trichloroethane	20.0	21.6		ug/L		108	70 - 130	0	36
1,1,2,2-Tetrachloroethane	20.0	21.2		ug/L		106	60 - 140	4	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	20.6		ug/L		103	60 - 140	0	30
1,1,2-Trichloroethane	20.0	21.8		ug/L		109	70 - 130	1	45
1,1-Dichloroethane	20.0	22.3		ug/L		112	70 - 130	3	40
1,1-Dichloroethene	20.0	22.3		ug/L		111	50 - 150	1	32
1,1-Dichloropropene	20.0	21.0		ug/L		105	60 - 140	0	30
1,2,3-Trichlorobenzene	20.0	20.3		ug/L		102	60 - 140	4	30
1,2,3-Trichloropropane	20.0	23.3		ug/L		116	60 - 140	1	30
1,2,4-Trichlorobenzene	20.0	19.8		ug/L		99	60 - 140	4	30
1,2,4-Trimethylbenzene	20.0	21.1		ug/L		105	60 - 140	3	30
1,2-Dibromo-3-Chloropropane	20.0	22.4		ug/L		112	60 - 140	1	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-601839/3
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane	20.0	21.2		ug/L		106	60 - 140	1	30
1,2-Dichlorobenzene	20.0	21.0		ug/L		105	65 - 135	3	57
1,2-Dichloroethane	20.0	22.2		ug/L		111	70 - 130	1	49
1,2-Dichloropropane	20.0	21.6		ug/L		108	35 - 165	0	55
1,3,5-Trimethylbenzene	20.0	20.7		ug/L		104	60 - 140	1	30
1,3-Dichlorobenzene	20.0	20.6		ug/L		103	70 - 130	4	43
1,3-Dichloropropane	20.0	21.1		ug/L		105	60 - 140	0	30
1,4-Dichlorobenzene	20.0	20.4		ug/L		102	65 - 135	3	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	20.7		ug/L		104	60 - 140	2	30
2,2-Dichloropropane	20.0	20.7		ug/L		103	60 - 140	0	30
2-Butanone	20.0	22.4		ug/L		112	60 - 140	14	30
2-Chloroethyl vinyl ether	20.0	20.7		ug/L		103	1 - 225	5	71
2-Chlorotoluene	20.0	20.2		ug/L		101	60 - 140	3	30
2-Hexanone	20.0	19.8		ug/L		99	60 - 140	21	30
4-Chlorotoluene	20.0	21.3		ug/L		107	60 - 140	5	30
4-Methyl-2-pentanone	20.0	18.4		ug/L		92	60 - 140	1	30
Acetone	20.0	21.5		ug/L		108	60 - 140	0	30
Benzene	20.0	21.5		ug/L		108	65 - 135	1	61
Bromobenzene	20.0	20.6		ug/L		103	60 - 140	1	30
Bromochloromethane	20.0	22.5		ug/L		113	60 - 140	1	30
Bromodichloromethane	20.0	21.9		ug/L		110	65 - 135	2	56
Bromoform	20.0	21.0		ug/L		105	70 - 130	2	42
Bromomethane	20.0	18.1		ug/L		90	15 - 185	4	61
Carbon disulfide	20.0	21.7		ug/L		109	60 - 140	1	30
Carbon tetrachloride	20.0	22.7		ug/L		113	70 - 130	0	41
Chlorobenzene	20.0	20.3		ug/L		102	65 - 135	1	53
Chloroethane	20.0	21.4		ug/L		107	40 - 160	5	78
Chloroform	20.0	22.1		ug/L		110	70 - 135	3	30
Chloromethane	20.0	20.4		ug/L		102	1 - 205	3	60
cis-1,2-Dichloroethene	20.0	21.9		ug/L		109	60 - 140	4	30
cis-1,3-Dichloropropene	20.0	21.8		ug/L		109	25 - 175	1	58
Dibromochloromethane	20.0	20.5		ug/L		103	70 - 135	0	50
Dibromomethane	20.0	21.8		ug/L		109	60 - 140	2	30
Dichlorodifluoromethane	20.0	21.4		ug/L		107	60 - 140	8	30
Di-isopropyl ether (DIPE)	20.0	22.2		ug/L		111	60 - 140	3	30
Ethanol	200	211		ug/L		105	60 - 140	6	30
Ethylbenzene	20.0	20.7		ug/L		103	60 - 140	1	63
Ethyl-t-butyl ether (ETBE)	20.0	21.2		ug/L		106	60 - 140	2	30
Hexachloro-1,3-butadiene	20.0	19.9		ug/L		99	60 - 140	2	30
Isopropanol	100	106		ug/L		106	60 - 140	22	30
Isopropylbenzene	20.0	20.6		ug/L		103	60 - 140	1	30
m,p-Xylene	40.0	42.2		ug/L		105	60 - 140	1	30
Methylene Chloride	20.0	21.9		ug/L		109	60 - 140	2	28
Methyl-t-Butyl Ether (MTBE)	20.0	21.4		ug/L		107	60 - 140	4	30
Naphthalene	20.0	18.5		ug/L		92	60 - 140	3	30
n-Butylbenzene	20.0	20.3		ug/L		101	60 - 140	4	30
N-Propylbenzene	20.0	21.3		ug/L		106	60 - 140	1	30
o-Xylene	20.0	20.4		ug/L		102	60 - 140	0	30
p-Isopropyltoluene	20.0	20.7		ug/L		103	60 - 140	3	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-601839/3
Matrix: Water
Analysis Batch: 601839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
sec-Butylbenzene	20.0	20.4		ug/L		102	60 - 140	1	30
Styrene	20.0	21.0		ug/L		105	60 - 140	1	30
Tert-amyl-methyl ether (TAME)	20.0	19.9		ug/L		100	60 - 140	2	30
tert-Butyl alcohol (TBA)	100	89.9		ug/L		90	60 - 140	4	30
tert-Butylbenzene	20.0	20.1		ug/L		101	60 - 140	2	30
Tetrachloroethene	20.0	20.3		ug/L		101	70 - 130	2	39
Tetrahydrofuran	20.0	21.6		ug/L		108	60 - 140	5	30
Toluene	20.0	20.8		ug/L		104	70 - 130	2	41
trans-1,2-Dichloroethene	20.0	21.7		ug/L		108	70 - 130	1	45
trans-1,3-Dichloropropene	20.0	22.0		ug/L		110	50 - 150	0	86
Trichloroethene	20.0	20.9		ug/L		104	65 - 135	1	48
Trichlorofluoromethane	20.0	21.4		ug/L		107	50 - 150	7	84
Vinyl acetate	20.0	21.1		ug/L		106	60 - 140	8	30
Vinyl chloride	20.0	21.2		ug/L		106	5 - 195	4	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*113*		*60 - 140*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*
Dibromofluoromethane	*105*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-614711/1-A
Matrix: Water
Analysis Batch: 615413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 614711

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
1,2-Dichlorobenzene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
1,3-Dichlorobenzene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
1,4-Dichlorobenzene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
1-Methylnaphthalene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2,4,5-Trichlorophenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2,4,6-Trichlorophenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2,4-Dichlorophenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2,4-Dimethylphenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2,4-Dinitrophenol	ND		50		ug/L		08/21/25 08:00	08/22/25 12:22	1
2,4-Dinitrotoluene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2,6-Dichlorophenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2,6-Dinitrotoluene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2-Chloronaphthalene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2-Chlorophenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2-Methylnaphthalene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2-Methylphenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2-Nitroaniline	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
2-Nitrophenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-614711/1-A
Matrix: Water
Analysis Batch: 615413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 614711

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
3/4-Methylphenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
3-Nitroaniline	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		08/21/25 08:00	08/22/25 12:22	1
4-Bromophenyl phenyl ether	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
4-Chloro-3-methylphenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
4-Chloroaniline	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
4-Nitroaniline	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
4-Nitrophenol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Acenaphthene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Acenaphthylene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Acetophenone	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Alpha-Terpineol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Aniline	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Anthracene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Azobenzene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Benzidine	ND		50		ug/L		08/21/25 08:00	08/22/25 12:22	1
Benzo[a]anthracene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Benzo[a]pyrene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Benzo[b]fluoranthene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Benzo[k]fluoranthene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Benzoic acid	ND		50		ug/L		08/21/25 08:00	08/22/25 12:22	1
Benzyl alcohol	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Bis(2-chloroethyl)ether	ND		25		ug/L		08/21/25 08:00	08/22/25 12:22	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Butyl benzyl phthalate	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Carbazole	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Chrysene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Dibenz(a,h)anthracene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Dibenzofuran	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Diethyl phthalate	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Dimethyl phthalate	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Di-n-butyl phthalate	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Di-n-octyl phthalate	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Fluoranthene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Fluorene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Hexachloro-1,3-butadiene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Hexachlorobenzene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Hexachlorocyclopentadiene	ND		25		ug/L		08/21/25 08:00	08/22/25 12:22	1
Hexachloroethane	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Isophorone	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Naphthalene	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
n-Decane	ND		10		ug/L		08/21/25 08:00	08/22/25 12:22	1
Nitrobenzene	ND		25		ug/L		08/21/25 08:00	08/22/25 12:22	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-614711/1-A
Matrix: Water
Analysis Batch: 615413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 614711

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		10	ug/L		08/21/25 08:00	08/22/25 12:22	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		08/21/25 08:00	08/22/25 12:22	1
N-Nitrosodiphenylamine	ND		10	ug/L		08/21/25 08:00	08/22/25 12:22	1
n-Octadecane	ND		10	ug/L		08/21/25 08:00	08/22/25 12:22	1
Pentachlorophenol	ND		10	ug/L		08/21/25 08:00	08/22/25 12:22	1
Phenanthrene	ND		10	ug/L		08/21/25 08:00	08/22/25 12:22	1
Phenol	ND		10	ug/L		08/21/25 08:00	08/22/25 12:22	1
Pyrene	ND		10	ug/L		08/21/25 08:00	08/22/25 12:22	1
Pyridine	ND		10	ug/L		08/21/25 08:00	08/22/25 12:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*77*		*33 - 139*	*08/21/25 08:00*	*08/22/25 12:22*	*1*
2-Fluorobiphenyl (Surr)	*81*		*33 - 126*	*08/21/25 08:00*	*08/22/25 12:22*	*1*
2-Fluorophenol (Surr)	*68*		*12 - 120*	*08/21/25 08:00*	*08/22/25 12:22*	*1*
Nitrobenzene-d5 (Surr)	*72*		*36 - 120*	*08/21/25 08:00*	*08/22/25 12:22*	*1*
Phenol-d6 (Surr)	*31*		*10 - 120*	*08/21/25 08:00*	*08/22/25 12:22*	*1*
p-Terphenyl-d14 (Surr)	*89*		*47 - 131*	*08/21/25 08:00*	*08/22/25 12:22*	*1*

Lab Sample ID: LCS 570-614711/2-A
Matrix: Water
Analysis Batch: 615413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 614711

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	100	83.3		ug/L		83	57 - 130
1,2-Dichlorobenzene	100	101		ug/L		101	50 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	77.0		ug/L		77	57 - 120
1,3-Dichlorobenzene	100	95.1		ug/L		95	46 - 120
1,4-Dichlorobenzene	100	88.0		ug/L		88	47 - 120
1-Methylnaphthalene	100	66.8		ug/L		67	63 - 120
2,4,5-Trichlorophenol	100	85.5		ug/L		85	62 - 120
2,4,6-Trichlorophenol	100	85.8		ug/L		86	52 - 129
2,4-Dichlorophenol	100	81.2		ug/L		81	53 - 122
2,4-Dimethylphenol	100	77.4		ug/L		77	42 - 120
2,4-Dinitrophenol	100	63.9		ug/L		64	1 - 173
2,4-Dinitrotoluene	100	93.8		ug/L		94	48 - 127
2,6-Dichlorophenol	100	81.1		ug/L		81	64 - 120
2,6-Dinitrotoluene	100	98.0		ug/L		98	68 - 137
2-Chloronaphthalene	100	92.0		ug/L		92	65 - 120
2-Chlorophenol	100	114		ug/L		114	36 - 120
2-Methylnaphthalene	100	64.1		ug/L		64	60 - 120
2-Methylphenol	100	76.2		ug/L		76	55 - 120
2-Nitroaniline	100	92.9		ug/L		93	53 - 120
2-Nitrophenol	100	77.1		ug/L		77	45 - 167
3,3'-Dichlorobenzidine	100	84.9		ug/L		85	8 - 213
3/4-Methylphenol	200	144		ug/L		72	41 - 120
3-Nitroaniline	100	95.0		ug/L		95	62 - 120
4,6-Dinitro-2-methylphenol	100	74.3		ug/L		74	53 - 130
4-Bromophenyl phenyl ether	100	82.2		ug/L		82	65 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-614711/2-A
Matrix: Water
Analysis Batch: 615413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 614711

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Chloro-3-methylphenol	100	66.2		ug/L		66	41 - 128
4-Chloroaniline	100	77.4		ug/L		77	53 - 120
4-Chlorophenyl phenyl ether	100	78.5		ug/L		79	38 - 145
4-Nitroaniline	100	77.4		ug/L		77	61 - 120
4-Nitrophenol	100	51.3		ug/L		51	13 - 129
Acenaphthene	100	92.2		ug/L		92	60 - 132
Acenaphthylene	100	93.6		ug/L		94	54 - 126
Acetophenone	100	85.0		ug/L		85	45 - 120
Alpha-Terpineol	100	91.1		ug/L		91	60 - 140
Aniline	100	110		ug/L		110	50 - 120
Anthracene	100	96.3		ug/L		96	43 - 120
Azobenzene	100	77.0		ug/L		77	57 - 120
Benzidine	100	50.8		ug/L		51	20 - 143
Benzo[a]anthracene	100	94.8		ug/L		95	42 - 133
Benzo[a]pyrene	100	97.7		ug/L		98	32 - 148
Benzo[b]fluoranthene	100	96.7		ug/L		97	42 - 140
Benzo[g,h,i]perylene	100	102		ug/L		102	1 - 195
Benzo[k]fluoranthene	100	98.4		ug/L		98	25 - 146
Benzoic acid	100	35.5	J	ug/L		35	20 - 120
Benzyl alcohol	100	84.5		ug/L		85	47 - 120
Bis (2-chloroethoxy) methane	100	79.0		ug/L		79	49 - 165
bis (2-chloroisopropyl) ether	100	66.7		ug/L		67	63 - 139
Bis(2-chloroethyl)ether	100	116		ug/L		116	43 - 126
Bis(2-ethylhexyl) phthalate	100	96.9		ug/L		97	29 - 137
Butyl benzyl phthalate	100	103		ug/L		103	1 - 140
Chrysene	100	96.2		ug/L		96	44 - 140
Dibenz(a,h)anthracene	100	99.6		ug/L		100	1 - 200
Dibenzofuran	100	86.0		ug/L		86	61 - 120
Diethyl phthalate	100	78.9		ug/L		79	1 - 120
Dimethyl phthalate	100	93.5		ug/L		94	1 - 120
Di-n-butyl phthalate	100	97.1		ug/L		97	8 - 120
Di-n-octyl phthalate	100	102		ug/L		102	19 - 132
Fluoranthene	100	99.2		ug/L		99	43 - 121
Fluorene	100	79.7		ug/L		80	70 - 120
Hexachloro-1,3-butadiene	100	63.2		ug/L		63	38 - 120
Hexachlorobenzene	100	93.9		ug/L		94	8 - 142
Hexachlorocyclopentadiene	100	76.6		ug/L		77	46 - 135
Hexachloroethane	100	81.1		ug/L		81	55 - 120
Indeno[1,2,3-cd]pyrene	100	92.0		ug/L		92	1 - 151
Isophorone	100	67.7		ug/L		68	47 - 180
Naphthalene	100	81.1		ug/L		81	36 - 120
Nitrobenzene	100	67.9		ug/L		68	54 - 158
N-Nitrosodimethylamine	100	80.1		ug/L		80	38 - 120
N-Nitrosodi-n-propylamine	100	78.5		ug/L		79	14 - 198
N-Nitrosodiphenylamine	100	100		ug/L		100	79 - 127
Pentachlorophenol	100	51.0		ug/L		51	38 - 152
Phenanthrene	100	95.1		ug/L		95	65 - 120
Phenol	100	64.3		ug/L		64	17 - 120
Pyrene	100	103		ug/L		103	70 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-614711/2-A
Matrix: Water
Analysis Batch: 615413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 614711

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Pyridine			100	74.5		ug/L		74	27 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*78*		*33 - 139*
2-Fluorobiphenyl (Surr)	*76*		*33 - 126*
2-Fluorophenol (Surr)	*83*		*12 - 120*
Nitrobenzene-d5 (Surr)	*68*		*36 - 120*
Phenol-d6 (Surr)	*53*		*10 - 120*
p-Terphenyl-d14 (Surr)	*92*		*47 - 131*

Lab Sample ID: LCSD 570-614711/3-A
Matrix: Water
Analysis Batch: 615413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 614711

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			100	77.9		ug/L		78	57 - 130	7	30
1,2-Dichlorobenzene			100	78.1	*1	ug/L		78	50 - 120	26	20
1,2-Diphenylhydrazine(as Azobenzene)			100	88.9		ug/L		89	57 - 120	14	20
1,3-Dichlorobenzene			100	72.2	*1	ug/L		72	46 - 120	27	20
1,4-Dichlorobenzene			100	71.7		ug/L		72	47 - 120	20	20
1-Methylnaphthalene			100	80.1		ug/L		80	63 - 120	18	20
2,4,5-Trichlorophenol			100	81.9		ug/L		82	62 - 120	4	20
2,4,6-Trichlorophenol			100	79.8		ug/L		80	52 - 129	7	35
2,4-Dichlorophenol			100	76.9		ug/L		77	53 - 122	5	30
2,4-Dimethylphenol			100	75.4		ug/L		75	42 - 120	3	35
2,4-Dinitrophenol			100	50.5		ug/L		51	1 - 173	23	79
2,4-Dinitrotoluene			100	83.7		ug/L		84	48 - 127	11	25
2,6-Dichlorophenol			100	76.1		ug/L		76	64 - 120	6	20
2,6-Dinitrotoluene			100	80.9		ug/L		81	68 - 137	19	29
2-Chloronaphthalene			100	77.4	*1	ug/L		77	65 - 120	17	15
2-Chlorophenol			100	87.2		ug/L		87	36 - 120	27	37
2-Methylnaphthalene			100	77.7		ug/L		78	60 - 120	19	20
2-Methylphenol			100	79.8		ug/L		80	55 - 120	4	20
2-Nitroaniline			100	77.8		ug/L		78	53 - 120	18	20
2-Nitrophenol			100	79.7		ug/L		80	45 - 167	3	33
3,3'-Dichlorobenzidine			100	71.7		ug/L		72	8 - 213	17	65
3/4-Methylphenol			200	145		ug/L		72	41 - 120	0	20
3-Nitroaniline			100	80.7		ug/L		81	62 - 120	16	20
4,6-Dinitro-2-methylphenol			100	81.3		ug/L		81	53 - 130	9	122
4-Bromophenyl phenyl ether			100	75.3		ug/L		75	65 - 120	9	26
4-Chloro-3-methylphenol			100	82.4		ug/L		82	41 - 128	22	44
4-Chloroaniline			100	75.2		ug/L		75	53 - 120	3	20
4-Chlorophenyl phenyl ether			100	77.5		ug/L		78	38 - 145	1	36
4-Nitroaniline			100	80.0		ug/L		80	61 - 120	3	20
4-Nitrophenol			100	36.1		ug/L		36	13 - 129	35	79
Acenaphthene			100	75.7		ug/L		76	60 - 132	20	29
Acenaphthylene			100	78.4		ug/L		78	54 - 126	18	45
Acetophenone			100	86.9		ug/L		87	45 - 120	2	20

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-614711/3-A
Matrix: Water
Analysis Batch: 615413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 614711

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alpha-Terpineol			100	60.8	*1	ug/L		61	60 - 140	40	30
Aniline			100	83.6	*1	ug/L		84	50 - 120	27	20
Anthracene			100	79.1		ug/L		79	43 - 120	20	40
Azobenzene			100	88.9		ug/L		89	57 - 120	14	20
Benzidine			100	24.7	J *1	ug/L		25	20 - 143	69	30
Benzo[a]anthracene			100	79.1		ug/L		79	42 - 133	18	32
Benzo[a]pyrene			100	94.4		ug/L		94	32 - 148	3	43
Benzo[b]fluoranthene			100	93.7		ug/L		94	42 - 140	3	43
Benzo[g,h,i]perylene			100	84.4		ug/L		84	1 - 195	19	61
Benzo[k]fluoranthene			100	93.5		ug/L		94	25 - 146	5	38
Benzoic acid			100	33.6	J	ug/L		34	20 - 120	6	20
Benzyl alcohol			100	69.0		ug/L		69	47 - 120	20	20
Bis (2-chloroethoxy) methane			100	76.3		ug/L		76	49 - 165	3	32
bis (2-chloroisopropyl) ether			100	72.3		ug/L		72	63 - 139	8	46
Bis(2-chloroethyl)ether			100	86.3		ug/L		86	43 - 126	29	65
Bis(2-ethylhexyl) phthalate			100	79.0		ug/L		79	29 - 137	20	50
Butyl benzyl phthalate			100	78.1		ug/L		78	1 - 140	28	36
Chrysene			100	82.0		ug/L		82	44 - 140	16	53
Dibenz(a,h)anthracene			100	83.5		ug/L		84	1 - 200	18	75
Dibenzofuran			100	77.4		ug/L		77	61 - 120	11	20
Diethyl phthalate			100	79.5		ug/L		79	1 - 120	1	60
Dimethyl phthalate			100	79.7		ug/L		80	1 - 120	16	110
Di-n-butyl phthalate			100	98.1		ug/L		98	8 - 120	1	28
Di-n-octyl phthalate			100	99.3		ug/L		99	19 - 132	2	42
Fluoranthene			100	80.3		ug/L		80	43 - 121	21	40
Fluorene			100	79.7		ug/L		80	70 - 120	0	23
Hexachloro-1,3-butadiene			100	69.1		ug/L		69	38 - 120	9	38
Hexachlorobenzene			100	93.3		ug/L		93	8 - 142	1	33
Hexachlorocyclopentadiene			100	68.4		ug/L		68	46 - 135	11	20
Hexachloroethane			100	80.5		ug/L		80	55 - 120	1	32
Indeno[1,2,3-cd]pyrene			100	74.9		ug/L		75	1 - 151	21	60
Isophorone			100	72.5		ug/L		72	47 - 180	7	56
Naphthalene			100	73.8		ug/L		74	36 - 120	9	39
Nitrobenzene			100	90.2		ug/L		90	54 - 158	28	37
N-Nitrosodimethylamine			100	55.3	*1	ug/L		55	38 - 120	37	20
N-Nitrosodi-n-propylamine			100	86.9		ug/L		87	14 - 198	10	52
N-Nitrosodiphenylamine			100	113		ug/L		113	79 - 127	12	20
Pentachlorophenol			100	38.0		ug/L		38	38 - 152	29	52
Phenanthrene			100	78.2		ug/L		78	65 - 120	20	24
Phenol			100	50.7		ug/L		51	17 - 120	24	39
Pyrene			100	82.7		ug/L		83	70 - 120	22	30
Pyridine			100	47.4	*1	ug/L		47	27 - 120	44	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*79*		*33 - 139*
2-Fluorobiphenyl (Surr)	*71*		*33 - 126*
2-Fluorophenol (Surr)	*59*		*12 - 120*
Nitrobenzene-d5 (Surr)	*83*		*36 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-614711/3-A
Matrix: Water
Analysis Batch: 615413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 614711

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Phenol-d6 (Surr)	*40*		*10 - 120*
p-Terphenyl-d14 (Surr)	*73*		*47 - 131*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 410-677485/1-A
Matrix: Water
Analysis Batch: 677827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 677485

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		07/29/25 07:35	07/29/25 19:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*72*		*30 - 187*	*07/29/25 07:35*	*07/29/25 19:20*	*1*
Benzo(a)pyrene-d12 (Surr)	*68*		*32 - 194*	*07/29/25 07:35*	*07/29/25 19:20*	*1*
1-Methylnaphthalene-d10	*56*		*45 - 130*	*07/29/25 07:35*	*07/29/25 19:20*	*1*

Lab Sample ID: LCS 410-677485/2-A
Matrix: Water
Analysis Batch: 677827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 677485

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			1.00	0.424		ug/L		42	18 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*77*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*76*		*32 - 194*
1-Methylnaphthalene-d10	*57*		*45 - 130*

Lab Sample ID: LCSD 410-677485/3-A
Matrix: Water
Analysis Batch: 677827

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 677485

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			1.00	0.348		ug/L		35	18 - 130	20	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*67*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*68*		*32 - 194*
1-Methylnaphthalene-d10	*57*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-606201/37
Matrix: Water
Analysis Batch: 606201

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50		ug/L			08/02/25 22:39	1
Gasoline Range Organics (C4-C12)	ND		50		ug/L			08/02/25 22:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*20 - 144*		*08/02/25 22:39*	*1*

Lab Sample ID: LCS 570-606201/35
Matrix: Water
Analysis Batch: 606201

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			2000	1920		ug/L		96	71 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*20 - 144*

Lab Sample ID: LCSD 570-606201/36
Matrix: Water
Analysis Batch: 606201

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2000	1890		ug/L		95	71 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*20 - 144*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-610003/1-A
Matrix: Water
Analysis Batch: 610384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 610003

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.10		ug/L		08/11/25 15:28	08/12/25 17:19	1
Aroclor-1221	ND		0.10		ug/L		08/11/25 15:28	08/12/25 17:19	1
Aroclor-1232	ND		0.10		ug/L		08/11/25 15:28	08/12/25 17:19	1
Aroclor-1242	ND		0.10		ug/L		08/11/25 15:28	08/12/25 17:19	1
Aroclor-1248	ND		0.10		ug/L		08/11/25 15:28	08/12/25 17:19	1
Aroclor-1254	ND		0.10		ug/L		08/11/25 15:28	08/12/25 17:19	1
Aroclor-1260	ND		0.10		ug/L		08/11/25 15:28	08/12/25 17:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*88*		*20 - 154*	*08/11/25 15:28*	*08/12/25 17:19*	*1*
Tetrachloro-m-xylene (Surr)	*78*		*20 - 139*	*08/11/25 15:28*	*08/12/25 17:19*	*1*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 570-610003/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 610384 — **Prep Batch: 610003**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			0.200	0.219		ug/L		109	50 - 140		
Aroclor-1260			0.200	0.207		ug/L		103	8 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*95*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*92*		*20 - 139*

Lab Sample ID: LCSD 570-610003/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 610384 — **Prep Batch: 610003**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor-1016			0.200	0.206		ug/L		103	50 - 140	6	36
Aroclor-1260			0.200	0.204		ug/L		102	8 - 140	1	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*84*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*83*		*20 - 139*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-677413/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677684 — **Prep Batch: 677413**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L		07/28/25 23:29	07/29/25 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*103*		*46 - 136*	*07/28/25 23:29*	*07/29/25 12:29*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*100*		*46 - 136*	*07/28/25 23:29*	*07/29/25 12:29*	*1*

Lab Sample ID: LCS 410-677413/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677684 — **Prep Batch: 677413**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene Dibromide			0.129	0.135		ug/L		104	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*105*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*102*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-677413/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677684 — **Prep Batch: 677413**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide			0.129	0.140		ug/L		108	60 - 140	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*105*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*103*		*46 - 136*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-603849/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 607769 — **Prep Batch: 603849**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250		ug/L		07/29/25 09:22	08/06/25 17:45	1
Diesel Range Organics [C10-C28]	ND		50		ug/L		07/29/25 09:22	08/06/25 17:45	1
C24-C44	ND		250		ug/L		07/29/25 09:22	08/06/25 17:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*104*		*53 - 151*	*07/29/25 09:22*	*08/06/25 17:45*	*1*

Lab Sample ID: LCS 570-603849/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605388 — **Prep Batch: 603849**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			4000	4850		ug/L		121	65 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*111*		*53 - 151*

Lab Sample ID: LCS 570-603849/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 607769 — **Prep Batch: 603849**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Crude Oil (C7-C44)			4000	3340		ug/L		84	43 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*100*		*53 - 151*

Lab Sample ID: LCSD 570-603849/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605388 — **Prep Batch: 603849**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			4000	4330		ug/L		108	65 - 129	11	30

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 570-603849/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605388 — **Prep Batch: 603849**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	101		53 - 151

Lab Sample ID: LCSD 570-603849/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 607769 — **Prep Batch: 603849**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Crude Oil (C7-C44)			4000	3380		ug/L		84	43 - 131	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	110		53 - 151

Method: 8015C - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 410-680235/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 680325 — **Prep Batch: 680235**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	16.0	B	13		mg/L		08/04/25 10:29	08/04/25 15:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Butanediol	76		10 - 130	08/04/25 10:29	08/04/25 15:20	1

Lab Sample ID: LCS 410-680235/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 680325 — **Prep Batch: 680235**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene glycol			99.8	94.9		mg/L		95	75 - 124		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Butanediol	90		10 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-603712/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603712

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10		mg/L			07/29/25 06:40	1
Chloride	ND		1.0		mg/L			07/29/25 06:40	1
Fluoride	ND		0.10		mg/L			07/29/25 06:40	1
Sulfate	ND		1.0		mg/L			07/29/25 06:40	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 570-603712/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603712

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromide			5.00	4.80		mg/L		96	90 - 110		
Chloride			50.0	52.0		mg/L		104	90 - 110		
Fluoride			2.50	2.25		mg/L		90	90 - 110		
Sulfate			50.0	50.0		mg/L		100	90 - 110		

Lab Sample ID: LCSD 570-603712/7 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603712

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide			5.00	4.68		mg/L		94	90 - 110	2	15
Chloride			50.0	52.0		mg/L		104	90 - 110	0	15
Fluoride			2.50	2.28		mg/L		91	90 - 110	1	15
Sulfate			50.0	50.1		mg/L		100	90 - 110	0	15

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-8442/18 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8442

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			07/28/25 14:17	1

Lab Sample ID: MB 350-8442/19 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8442

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			07/28/25 14:21	1

Lab Sample ID: MB 350-8442/20 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8442

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			07/28/25 14:25	1

Lab Sample ID: LCS 350-8442/25 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8442

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			5.00	4.84		ng/L		97	77 - 123		

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: LCSD 350-8442/26 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8442

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			5.00	4.91		ng/L		98	77 - 123	1	24

Lab Sample ID: 380-162271-1 MS — **Client Sample ID: MW 2**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 8442

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	0.72		5.00	5.50		ng/L		96	71 - 125		

Lab Sample ID: 380-162271-1 MSD — **Client Sample ID: MW 2**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 8442

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.72		5.00	5.33		ng/L		92	71 - 125	3	24

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-8663/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:04	1
Cadmium	ND		0.020		ug/L		08/06/25 00:00	08/06/25 23:04	1
Chromium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Copper	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:04	1
Lead	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:04	1
Silver	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Zinc	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Aluminum	ND		5.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Barium	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:04	1
Manganese	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:04	1
Selenium	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:04	1
Vanadium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1

Lab Sample ID: MB 350-8663/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:18	1
Cadmium	ND		0.020		ug/L		08/06/25 00:00	08/06/25 23:18	1
Chromium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Copper	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:18	1
Lead	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:18	1
Silver	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Zinc	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Aluminum	ND		5.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Barium	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:18	1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-8663/2-A
Matrix: Water
Analysis Batch: 8697

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8663

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:18	1
Selenium	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:18	1
Vanadium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1

Lab Sample ID: LCS 350-8663/3-A
Matrix: Water
Analysis Batch: 8697

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8663

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			12.5	11.4		ug/L		91	70 - 130		
Cadmium			1.25	1.24		ug/L		100	70 - 130		
Chromium			12.5	12.1		ug/L		97	70 - 130		
Copper			12.5	12.3		ug/L		99	70 - 130		
Lead			2.50	2.63		ug/L		105	70 - 130		
Silver			6.25	5.94		ug/L		95	70 - 130		
Zinc			12.5	12.7		ug/L		101	70 - 130		
Aluminum			125	118		ug/L		94	70 - 130		
Barium			12.5	11.9		ug/L		95	70 - 130		
Manganese			12.5	12.1		ug/L		97	70 - 130		
Selenium			12.5	11.6		ug/L		93	70 - 130		
Vanadium			12.5	12.2		ug/L		98	70 - 130		

Lab Sample ID: LCSD 350-8663/4-A
Matrix: Water
Analysis Batch: 8697

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8663

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic			12.5	11.3		ug/L		90	70 - 130	1	20
Cadmium			1.25	1.22		ug/L		98	70 - 130	2	20
Chromium			12.5	11.9		ug/L		95	70 - 130	1	20
Copper			12.5	12.1		ug/L		97	70 - 130	2	20
Lead			2.50	2.60		ug/L		104	70 - 130	1	20
Silver			6.25	6.06		ug/L		97	70 - 130	2	20
Zinc			12.5	12.5		ug/L		100	70 - 130	1	20
Aluminum			125	121		ug/L		97	70 - 130	2	20
Barium			12.5	12.0		ug/L		96	70 - 130	1	20
Manganese			12.5	12.2		ug/L		98	70 - 130	0	20
Selenium			12.5	11.7		ug/L		94	70 - 130	1	20
Vanadium			12.5	12.6		ug/L		101	70 - 130	3	20

Lab Sample ID: MB 350-8770/1-A
Matrix: Water
Analysis Batch: 8836

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8770

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		6.0		ug/L		08/11/25 00:00	08/11/25 22:44	1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-8770/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			62.5	56.7		ug/L		91	70 - 130		

Lab Sample ID: LCSD 350-8770/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron			62.5	59.5		ug/L		95	70 - 130	5	20

Lab Sample ID: 380-162271-1 MS — **Client Sample ID: MW 2**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	2.7		12.5	14.1		ug/L		92	50 - 150		
Cadmium	ND		1.25	1.19		ug/L		95	50 - 150		
Chromium	ND		12.5	12.3		ug/L		97	50 - 150		
Copper	ND		12.5	12.7		ug/L		102	50 - 150		
Lead	0.059		2.50	2.48		ug/L		97	50 - 150		
Silver	ND		6.25	6.44		ug/L		102	50 - 150		
Zinc	ND		12.5	13.1		ug/L		101	50 - 150		
Aluminum	5.9		125	121		ug/L		92	50 - 150		
Selenium	ND		12.5	12.3		ug/L		99	50 - 150		
Vanadium	1.9		12.5	14.1		ug/L		98	50 - 150		

Lab Sample ID: 380-162271-1 MS — **Client Sample ID: MW 2**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Barium	35	F1	12.5	60.8	F1	ug/L		209	50 - 150		
Manganese	39		12.5	50.1		ug/L		87	50 - 150		

Lab Sample ID: 380-162271-1 MSD — **Client Sample ID: MW 2**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	2.7		12.5	15.8		ug/L		105	50 - 150	11	20
Cadmium	ND		1.25	1.18		ug/L		95	50 - 150	0	20
Chromium	ND		12.5	12.3		ug/L		97	50 - 150	0	20
Copper	ND		12.5	12.7		ug/L		101	50 - 150	0	20
Lead	0.059		2.50	2.51		ug/L		98	50 - 150	1	20
Silver	ND		6.25	6.60		ug/L		104	50 - 150	2	20
Zinc	ND		12.5	13.1		ug/L		102	50 - 150	0	20
Aluminum	5.9		125	120		ug/L		92	50 - 150	1	20
Selenium	ND		12.5	11.7		ug/L		93	50 - 150	6	20
Vanadium	1.9		12.5	14.7		ug/L		102	50 - 150	4	20

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 380-162271-1 MSD — **Client Sample ID: MW 2**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	35	F1	12.5	47.7		ug/L		104	50 - 150	7	20
Manganese	39		12.5	49.1		ug/L		79	50 - 150	7	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 570-607221/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		2.0	mg/L			08/06/25 14:54	1
Iron	ND		0.50	mg/L			08/06/25 14:54	1
Lithium	ND		0.050	mg/L			08/06/25 14:54	1
Magnesium	ND		0.50	mg/L			08/06/25 14:54	1
Potassium	ND		2.0	mg/L			08/06/25 14:54	1
SiO2	ND		0.54	mg/L			08/06/25 14:54	1
Sodium	ND		2.0	mg/L			08/06/25 14:54	1
Strontium	ND		0.010	mg/L			08/06/25 14:54	1

Lab Sample ID: LCS 570-607221/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	2.50	2.59		mg/L		104	80 - 120
Iron	0.500	0.526		mg/L		105	80 - 120
Lithium	0.500	0.512		mg/L		102	80 - 120
Magnesium	2.50	2.63		mg/L		105	80 - 120
Potassium	5.00	5.07		mg/L		101	80 - 120
SiO2	5.38	5.61		mg/L		104	80 - 120
Sodium	5.00	5.12		mg/L		102	80 - 120
Strontium	0.500	0.507		mg/L		101	80 - 120

Lab Sample ID: LCSD 570-607221/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	2.50	2.56		mg/L		102	80 - 120	1	20
Iron	0.500	0.511		mg/L		102	80 - 120	3	20
Lithium	0.500	0.505		mg/L		101	80 - 120	1	20
Magnesium	2.50	2.52		mg/L		101	80 - 120	4	20
Potassium	5.00	4.98		mg/L		100	80 - 120	2	20
SiO2	5.38	5.42		mg/L		101	80 - 120	3	20
Sodium	5.00	5.01		mg/L		100	80 - 120	2	20
Strontium	0.500	0.495		mg/L		99	80 - 120	3	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-607199/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L			08/05/25 17:27	1

Lab Sample ID: LCS 570-607199/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Uranium			80.0	80.9		ug/L		101	80 - 120		

Lab Sample ID: LCSD 570-607199/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium			80.0	84.2		ug/L		105	80 - 120	4	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-603805/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604609 — **Prep Batch: 603805**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0		mg/L		07/29/25 07:56	07/30/25 12:46	1

Lab Sample ID: LCS 570-603805/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604609 — **Prep Batch: 603805**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
HEM: Oil and Grease			40.0	34.60		mg/L		86	78 - 114		

Lab Sample ID: LCSD 570-603805/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604609 — **Prep Batch: 603805**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease			40.0	37.70		mg/L		94	78 - 114	9	18

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-605732/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		08/01/25 12:27	08/04/25 15:19	1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 570-605732/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	5.00	5.24		mg/L		105	90 - 110

Lab Sample ID: LCSD 570-605732/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	5.00	5.28		mg/L		106	90 - 110	1	20

Method: 410.4 - COD

Lab Sample ID: MB 570-606240/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10	mg/L		08/03/25 08:40	08/03/25 08:19	1

Lab Sample ID: LCS 570-606240/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	50.0	49.9		mg/L		100	90 - 110

Lab Sample ID: LCSD 570-606240/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	50.0	49.9		mg/L		100	90 - 110	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 570-606867/39 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606867

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		5.0	mg/L			08/04/25 20:19	1
Bicarbonate (as CaCO3)	ND		5.0	mg/L			08/04/25 20:19	1
Carbonate (as CaCO3)	ND		5.0	mg/L			08/04/25 20:19	1
Hydroxide (as CaCO3)	ND		5.0	mg/L			08/04/25 20:19	1

Lab Sample ID: LCS 570-606867/37 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606867

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total (As CaCO3)	106	97.6		mg/L		92	78 - 110

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 570-606867/38 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606867

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)			106	96.8		mg/L		91	78 - 110	1	10

Lab Sample ID: 380-162271-1 DU — **Client Sample ID: MW 2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606867

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity, Total (As CaCO3)	440			470		mg/L				5	25
Bicarbonate (as CaCO3)	440			470		mg/L				5	25
Carbonate (as CaCO3)	ND			ND		mg/L				NC	25
Hydroxide (as CaCO3)	ND			ND		mg/L				NC	25

Method: SM 2520B - Salinity

Lab Sample ID: LCS 570-609968/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609968

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Salinity			35.0	36.6		psu		105	95 - 105		

Lab Sample ID: LCSD 570-609968/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609968

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Salinity			35.0	36.5		psu		104	95 - 105	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-603667/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603667

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			07/28/25 21:14	1

Lab Sample ID: LCS 570-603667/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603667

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	972		mg/L		97	85 - 110		

Lab Sample ID: LCSD 570-603667/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603667

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	974		mg/L		97	85 - 110	0	10

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 380-162271-1 DU — **Client Sample ID: MW 2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603667

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	5300			5100		mg/L				5	8

Method: SM 5310C - TOC

Lab Sample ID: MB 570-614841/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 614841

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic	ND		0.50		mg/L			08/20/25 15:04	1

Lab Sample ID: LCS 570-614841/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 614841

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Carbon, Non-Purgable Organic			5.03	5.06		mg/L		101	85 - 115		

Lab Sample ID: LCSD 570-614841/8 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 614841

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic			5.03	5.13		mg/L		102	85 - 115	1	15

Method: SM4500 SiO2 C - Silica, Molybdosilicate Method

Lab Sample ID: MB 380-165433/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 165433

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Silica (SiO2), molybdate-reactive	ND		1.0		mg/L			07/28/25 16:06	1

Lab Sample ID: LCS 380-165433/11 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 165433

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Silica (SiO2), molybdate-reactive			20.0	19.6		mg/L		98	85 - 115		

Lab Sample ID: LCSD 380-165433/12 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 165433

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silica (SiO2), molybdate-reactive			20.0	19.6		mg/L		98	85 - 115	0	20

Method: SM4500 SiO2 C - Silica, Molybdosilicate Method (Continued)

Lab Sample ID: MRL 380-165433/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 165433

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Silica (SiO2), molybdate-reactive	1.00	0.917	J	mg/L		92	50 - 150

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-729202/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	0.1638	U	0.525	0.525	4.00	0.889	pCi/L	07/28/25 07:56	07/29/25 18:20	1

Lab Sample ID: LCSB 160-729202/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Beta	69.5	70.67		7.60	4.00	0.972	pCi/L	102	75 - 125

Lab Sample ID: LCSBD 160-729202/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	Spike Added	LCSBD Result	LCSBD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Gross Beta	69.5	67.86		7.33	4.00	1.01	pCi/L	98	75 - 125	4	25

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-729203/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732633 — **Prep Batch: 729203**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.09497	U	0.180	0.181	1.00	0.321	pCi/L	07/28/25 08:03	08/19/25 21:46	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*30 - 110*	*07/28/25 08:03*	*08/19/25 21:46*	*1*

Lab Sample ID: LCS 160-729203/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732633 — **Prep Batch: 729203**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.57	8.382		1.13	1.00	0.291	pCi/L	88	75 - 125

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-729203/2-A
Matrix: Water
Analysis Batch: 732633

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 729203

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	88.4		30 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-729204/1-A
Matrix: Water
Analysis Batch: 732633

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 729204

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2363	U	0.389	0.390	1.00	0.664	pCi/L	07/28/25 08:06	08/19/25 11:57	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		30 - 110	07/28/25 08:06	08/19/25 11:57	1
Y Carrier	74.8		30 - 110	07/28/25 08:06	08/19/25 11:57	1

Lab Sample ID: LCS 160-729204/2-A
Matrix: Water
Analysis Batch: 732633

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 729204

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	9.15	10.94		1.46	1.00	0.544	pCi/L	120	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	88.4		30 - 110
Y Carrier	81.1		30 - 110

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-729827/1-A
Matrix: Water
Analysis Batch: 731471

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 729827

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.1335	U	0.188	0.188	3.00	0.189	pCi/L	07/31/25 08:19	08/11/25 15:03	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Sr Carrier	88.8		30 - 110	07/31/25 08:19	08/11/25 15:03	1
Y Carrier	96.4		30 - 110	07/31/25 08:19	08/11/25 15:03	1

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: LCS 160-729827/2-A
Matrix: Water
Analysis Batch: 731471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 729827

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Strontium-90	6.94	6.610		0.733	3.00	0.174	pCi/L	95	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*84.0*		*30 - 110*
Y Carrier	*95.0*		*30 - 110*

Method: SM7110C - Gross Alpha by Co-Precipitation

Lab Sample ID: MB 160-730803/1-A
Matrix: Water
Analysis Batch: 730988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 730803

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.9634		0.792	0.800	3.00	0.742	pCi/L	08/06/25 08:27	08/07/25 15:35	1

Lab Sample ID: LCS 160-730803/2-A
Matrix: Water
Analysis Batch: 730988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 730803

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Alpha	39.6	45.56		6.26	3.00	0.576	pCi/L	115	80 - 120

Method: U-02-RC - Uranium, Method U02

Lab Sample ID: MB 160-730590/1-A
Matrix: Water
Analysis Batch: 731065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 730590

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Uranium-234	0.001550	U	0.0538	0.0538	1.00	0.160	pCi/L	08/05/25 13:07	08/08/25 20:33	1
Uranium-235	0.0000	U	0.0116	0.0116	1.00	0.0926	pCi/L	08/05/25 13:07	08/08/25 20:33	1
Uranium-238	-0.009280	U	0.0131	0.0131	1.00	0.129	pCi/L	08/05/25 13:07	08/08/25 20:33	1
Total Uranium	0.001550	U	0.05657	0.05657	1.00	0.160	pCi/L	08/05/25 13:07	08/08/25 20:33	1

Tracer	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Uranium-232	*75.7*		*30 - 110*	*08/05/25 13:07*	*08/08/25 20:33*	*1*

Lab Sample ID: LCS 160-730590/2-A
Matrix: Water
Analysis Batch: 731066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 730590

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Uranium-234	12.7	14.03		1.69	1.00	0.120	pCi/L	111	75 - 125
Uranium-238	12.9	12.69		1.57	1.00	0.0790	pCi/L	98	75 - 125

Method: U-02-RC - Uranium, Method U02 (Continued)

Tracer	LCS %Yield	LCS Qualifier	Limits
Uranium-232	70.6		30 - 110

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

GC/MS VOA

Analysis Batch: 601839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	624.1	
MB 570-601839/6	Method Blank	Total/NA	Water	624.1	
LCS 570-601839/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-601839/3	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 614711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	625.1	
MB 570-614711/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-614711/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-614711/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 615413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	625.1	614711
MB 570-614711/1-A	Method Blank	Total/NA	Water	625.1	614711
LCS 570-614711/2-A	Lab Control Sample	Total/NA	Water	625.1	614711
LCSD 570-614711/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	614711

Prep Batch: 677485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	625.1	
MB 410-677485/1-A	Method Blank	Total/NA	Water	625.1	
LCS 410-677485/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 410-677485/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 677827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	625.1 SIM	677485
MB 410-677485/1-A	Method Blank	Total/NA	Water	625.1 SIM	677485
LCS 410-677485/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	677485
LCSD 410-677485/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	677485

GC VOA

Analysis Batch: 606201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	8015B	
MB 570-606201/37	Method Blank	Total/NA	Water	8015B	
LCS 570-606201/35	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-606201/36	Lab Control Sample Dup	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 603849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	3510C	
MB 570-603849/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-603849/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 570-603849/4-A	Lab Control Sample	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 603849 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-603849/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 570-603849/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 605388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-603849/2-A	Lab Control Sample	Total/NA	Water	8015B	603849
LCSD 570-603849/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	603849

Analysis Batch: 607769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	8015B	603849
MB 570-603849/1-A	Method Blank	Total/NA	Water	8015B	603849
LCS 570-603849/4-A	Lab Control Sample	Total/NA	Water	8015B	603849
LCSD 570-603849/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	603849

Prep Batch: 610003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	608	
MB 570-610003/1-A	Method Blank	Total/NA	Water	608	
LCS 570-610003/2-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-610003/3-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 610384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	608.3	610003
MB 570-610003/1-A	Method Blank	Total/NA	Water	608.3	610003
LCS 570-610003/2-A	Lab Control Sample	Total/NA	Water	608.3	610003
LCSD 570-610003/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	610003

Prep Batch: 677413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	8011	
MB 410-677413/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-677413/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-677413/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 677684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	8011	677413
MB 410-677413/1-A	Method Blank	Total/NA	Water	8011	677413
LCS 410-677413/2-A	Lab Control Sample	Total/NA	Water	8011	677413
LCSD 410-677413/3-A	Lab Control Sample Dup	Total/NA	Water	8011	677413

Prep Batch: 680235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	8015 DAI Prep	
MB 410-680235/1-A	Method Blank	Total/NA	Water	8015 DAI Prep	
LCS 410-680235/2-A	Lab Control Sample	Total/NA	Water	8015 DAI Prep	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

GC Semi VOA

Analysis Batch: 680325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	8015C	680235
MB 410-680235/1-A	Method Blank	Total/NA	Water	8015C	680235
LCS 410-680235/2-A	Lab Control Sample	Total/NA	Water	8015C	680235

HPLC/IC

Analysis Batch: 603712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	300.0	
380-162271-1 - DL	MW 2	Total/NA	Water	300.0	
MB 570-603712/5	Method Blank	Total/NA	Water	300.0	
LCS 570-603712/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-603712/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Analysis Batch: 8442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Dissolved	Water	1631E	
MB 350-8442/18	Method Blank	Total/NA	Water	1631E	
MB 350-8442/19	Method Blank	Total/NA	Water	1631E	
MB 350-8442/20	Method Blank	Total/NA	Water	1631E	
LCS 350-8442/25	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-8442/26	Lab Control Sample Dup	Total/NA	Water	1631E	
380-162271-1 MS	MW 2	Dissolved	Water	1631E	
380-162271-1 MSD	MW 2	Dissolved	Water	1631E	

Prep Batch: 8663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Dissolved	Water	1640	
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
380-162271-1 MS	MW 2	Dissolved	Water	1640	
380-162271-1 MSD	MW 2	Dissolved	Water	1640	

Analysis Batch: 8697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Dissolved	Water	1640	8663
380-162271-1	MW 2	Dissolved	Water	1640	8663
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	8663
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	8663
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	8663
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	8663
380-162271-1 MS	MW 2	Dissolved	Water	1640	8663
380-162271-1 MS	MW 2	Dissolved	Water	1640	8663
380-162271-1 MSD	MW 2	Dissolved	Water	1640	8663
380-162271-1 MSD	MW 2	Dissolved	Water	1640	8663

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Metals

Prep Batch: 8770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Dissolved	Water	1640	
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Dissolved	Water	1640	8770
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	8770
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	8770
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	8770

Filtration Batch: 607199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Dissolved	Water	Filtration	
MB 570-607199/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-607199/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-607199/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Filtration Batch: 607221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Dissolved	Water	Filtration	
MB 570-607221/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Analysis Batch: 607416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-607199/1-A	Method Blank	Dissolved	Water	6020	607199
LCS 570-607199/2-A	Lab Control Sample	Dissolved	Water	6020	607199
LCSD 570-607199/3-A	Lab Control Sample Dup	Dissolved	Water	6020	607199

Analysis Batch: 607925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Dissolved	Water	6020	607199

Analysis Batch: 607956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-607221/1-A	Method Blank	Dissolved	Water	6010D	607221
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	6010D	607221
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	6010D	607221

Analysis Batch: 608018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Dissolved	Water	6010D	607221
380-162271-1	MW 2	Dissolved	Water	6010D	607221

General Chemistry

Analysis Batch: 165433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	SM4500 SiO2 C	
MB 380-165433/9	Method Blank	Total/NA	Water	SM4500 SiO2 C	
LCS 380-165433/11	Lab Control Sample	Total/NA	Water	SM4500 SiO2 C	
LCSD 380-165433/12	Lab Control Sample Dup	Total/NA	Water	SM4500 SiO2 C	
MRL 380-165433/10	Lab Control Sample	Total/NA	Water	SM4500 SiO2 C	

Analysis Batch: 603667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	SM 2540C	
MB 570-603667/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-603667/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-603667/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
380-162271-1 DU	MW 2	Total/NA	Water	SM 2540C	

Prep Batch: 603805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	1664A	
MB 570-603805/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-603805/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-603805/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 604609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	1664A	603805
MB 570-603805/1-A	Method Blank	Total/NA	Water	1664A	603805
LCS 570-603805/2-A	Lab Control Sample	Total/NA	Water	1664A	603805
LCSD 570-603805/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	603805

Prep Batch: 605732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	351.2	
MB 570-605732/3-A	Method Blank	Total/NA	Water	351.2	
LCS 570-605732/4-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-605732/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	

Prep Batch: 606240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	410.4	
MB 570-606240/3-A	Method Blank	Total/NA	Water	410.4	
LCS 570-606240/4-A	Lab Control Sample	Total/NA	Water	410.4	
LCSD 570-606240/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 606279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	410.4	606240
MB 570-606240/3-A	Method Blank	Total/NA	Water	410.4	606240
LCS 570-606240/4-A	Lab Control Sample	Total/NA	Water	410.4	606240
LCSD 570-606240/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	606240

General Chemistry

Analysis Batch: 606746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	351.2	605732
MB 570-605732/3-A	Method Blank	Total/NA	Water	351.2	605732
LCS 570-605732/4-A	Lab Control Sample	Total/NA	Water	351.2	605732
LCSD 570-605732/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	605732

Analysis Batch: 606867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	SM 2320B	
MB 570-606867/39	Method Blank	Total/NA	Water	SM 2320B	
LCS 570-606867/37	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 570-606867/38	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
380-162271-1 DU	MW 2	Total/NA	Water	SM 2320B	

Analysis Batch: 609968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	SM 2520B	
LCS 570-609968/3	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 570-609968/4	Lab Control Sample Dup	Total/NA	Water	SM 2520B	

Analysis Batch: 614841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	SM 5310C	
MB 570-614841/6	Method Blank	Total/NA	Water	SM 5310C	
LCS 570-614841/7	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 570-614841/8	Lab Control Sample Dup	Total/NA	Water	SM 5310C	

Rad

Prep Batch: 729202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	Evaporation	
MB 160-729202/1-A	Method Blank	Total/NA	Water	Evaporation	
LCSB 160-729202/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSBD 160-729202/3-A	Lab Control Sample Dup	Total/NA	Water	Evaporation	

Prep Batch: 729203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	PrecSep-21	
MB 160-729203/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-729203/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 729204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	PrecSep_0	
MB 160-729204/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-729204/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 729827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	PrecSep-7	
MB 160-729827/1-A	Method Blank	Total/NA	Water	PrecSep-7	

Rad (Continued)

Prep Batch: 729827 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-729827/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	

Prep Batch: 730590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	ExtChrom	
MB 160-730590/1-A	Method Blank	Total/NA	Water	ExtChrom	
LCS 160-730590/2-A	Lab Control Sample	Total/NA	Water	ExtChrom	

Prep Batch: 730803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162271-1	MW 2	Total/NA	Water	Coprecipitation	
MB 160-730803/1-A	Method Blank	Total/NA	Water	Coprecipitation	
LCS 160-730803/2-A	Lab Control Sample	Total/NA	Water	Coprecipitation	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162271-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	601839	GC3Z	EET CAL 4	07/24/25 22:11
Total/NA	Prep	625.1			614711	OAJ3	EET CAL 4	08/21/25 08:00
Total/NA	Analysis	625.1		1	615413	AX7Z	EET CAL 4	08/22/25 13:33
Total/NA	Prep	625.1			677485	QKX3	ELLE	07/29/25 07:35
Total/NA	Analysis	625.1 SIM		1	677827	TB8M	ELLE	07/29/25 21:49
Total/NA	Analysis	8015B		1	606201	W4LC	EET CAL 4	08/02/25 23:35
Total/NA	Prep	608			610003	H1SH	EET CAL 4	08/11/25 15:29
Total/NA	Analysis	608.3		1	610384	P2HW	EET CAL 4	08/12/25 17:00
Total/NA	Prep	8011			677413	USL7	ELLE	07/28/25 23:29
Total/NA	Analysis	8011		1	677684	URS0	ELLE	07/29/25 13:20
Total/NA	Prep	3510C			603849	TVD6	EET CAL 4	07/29/25 17:44
Total/NA	Analysis	8015B		1	607769	NR	EET CAL 4	08/06/25 19:13
Total/NA	Prep	8015 DAI Prep			680235	WZ6J	ELLE	08/04/25 10:29
Total/NA	Analysis	8015C		100	680325	LXF2	ELLE	08/04/25 18:24
Total/NA	Analysis	300.0		5	603712	UIP1	EET CAL 4	07/29/25 20:40
Total/NA	Analysis	300.0	DL	100	603712	UIP1	EET CAL 4	07/29/25 20:56
Dissolved	Analysis	1631E		1	8442	AJD	EET SSM	07/28/25 13:56
Dissolved	Prep	1640			8663	V1R	EET SSM	08/06/25 00:00
Dissolved	Analysis	1640		1	8697	CL	EET SSM	08/07/25 00:00
Dissolved	Prep	1640			8663	V1R	EET SSM	08/06/25 00:00
Dissolved	Analysis	1640		10	8697	CL	EET SSM	08/07/25 09:52
Dissolved	Prep	1640			8770	V1R	EET SSM	08/11/25 00:00
Dissolved	Analysis	1640		10	8836	V1R	EET SSM	08/12/25 15:52
Dissolved	Filtration	Filtration			607221	F4JD	EET CAL 4	08/05/25 18:17
Dissolved	Analysis	6010D		1	608018	P1R	EET CAL 4	08/06/25 12:01
Dissolved	Filtration	Filtration			607221	F4JD	EET CAL 4	08/05/25 18:17
Dissolved	Analysis	6010D		2	608018	P1R	EET CAL 4	08/06/25 12:11
Dissolved	Filtration	Filtration			607199	F4JD	EET CAL 4	08/05/25 12:04
Dissolved	Analysis	6020		5	607925	C0YH	EET CAL 4	08/06/25 10:41
Total/NA	Prep	1664A			603805	S7HP	EET CAL 4	07/29/25 08:28
Total/NA	Analysis	1664A		1	604609	LM3A	EET CAL 4	07/30/25 12:46
Total/NA	Prep	351.2			605732	GG0B	EET CAL 4	08/01/25 12:27
Total/NA	Analysis	351.2		1	606746	GG0B	EET CAL 4	08/04/25 15:26
Total/NA	Analysis	410.4		1	606279	TP6R	EET CAL 4	08/03/25 08:20
Total/NA	Prep	410.4			606240	TP6R	EET CAL 4	08/03/25 08:40
Total/NA	Analysis	SM 2320B		1	606867	LNW3	EET CAL 4	08/04/25 20:25
Total/NA	Analysis	SM 2520B		1	609968	GG0B	EET CAL 4	08/11/25 14:18
Total/NA	Analysis	SM 2540C		1	603667	ZL7L	EET CAL 4	07/28/25 21:14
Total/NA	Analysis	SM 5310C		1	614841	U8XP	EET CAL 4	08/20/25 18:33
Total/NA	Analysis	SM4500 SiO2 C		2	165433	MIA8	EA POM	07/28/25 16:06
Total/NA	Prep	Evaporation			729202	OGC	EET SL	07/28/25 07:56
Total/NA	Analysis	900.0		1	729583	FLC	EET SL	07/29/25 18:18

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162271-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			729203	JTR	EET SL	07/28/25 08:03
Total/NA	Analysis	903.0		1	732633	SWS	EET SL	08/19/25 21:47
Total/NA	Prep	PrecSep_0			729204	JTR	EET SL	07/28/25 08:06
Total/NA	Analysis	904.0		1	732633	SWS	EET SL	08/19/25 11:57
Total/NA	Prep	PrecSep-7			729827	JTR	EET SL	07/31/25 08:19
Total/NA	Analysis	905		1	731471	FLC	EET SL	08/11/25 15:03
Total/NA	Analysis	Ra226_Ra228 Pos		1	732841	SCB	EET SL	08/20/25 12:37
Total/NA	Prep	Coprecipitation			730803	OGC	EET SL	08/06/25 08:27
Total/NA	Analysis	SM7110C		1	730988	SWS	EET SL	08/07/25 15:35
Total/NA	Prep	ExtChrom			730590	SEH	EET SL	08/05/25 13:07
Total/NA	Analysis	U-02-RC		1	731263	EJS	EET SL	08/10/25 12:04

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100
EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Laboratory: Eurofins Eaton Analytical Pomona

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	ISO/IEC 17025	5890.01 & 5890.02	09-30-25

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-07-25
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	08-10-25
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26
New Jersey	NELAP	PA011	08-11-25
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	07-31-26
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-08-26
Florida	NELAP	E87575	06-30-26
Louisiana (All)	NELAP	03073	07-01-26
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-26
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167-008	07-08-26
US Fish & Wildlife	US Federal Programs	A20571	06-30-26
USDA	US Federal Programs	525-23-4-22573	01-24-28
Washington	State	C788-23a	07-13-26
Wisconsin	State	399133460	08-31-26

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25 *
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	12-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25 *
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	ELLE
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CAL 4
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
8015C	Glycols- Direct Injection (GC/FID)	SW846	ELLE
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1640	Metals (ICPMS)	EPA	EET SSM
6010D	Metals (ICP)	SW846	EET CAL 4
6020	Metals (ICP/MS)	SW846	EET CAL 4
1664A	HEM and SGT-HEM	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
410.4	COD	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EET CAL 4
SM 2520B	Salinity	SM	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
SM 5310C	TOC	SM	EET CAL 4
SM4500 SiO2 C	Silica, Molybdosilicate Method	SM	EA POM
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
SM7110C	Gross Alpha by Co-Precipitation	SM	EET SL
U-02-RC	Uranium, Method U02	HASL	EET SL
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
410.4	COD	EPA	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	ELLE
8011	Microextraction	SW846	ELLE
8015 DAI Prep	Preparation, Direct Aqueous Injection	SW846	ELLE
Coprecipitation	Preparation, Coprecipitation	None	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
ExtChrom	Preparation, Extraction Chromatography Resin Actinide Separation	None	EET SL
Filtration	Sample Filtration	None	EET CAL 4
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Method	Method Description	Protocol	Laboratory

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

HASL = Health And Safety Laboratory

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162271-1
SDG: MW 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-162271-1	MW 2	Water	07/22/25 11:30	07/23/25 09:30	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

380-162271 COC

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s)	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300, SM2520B, SM4500_SIO2 Br, Cl, F, SO4, Si, Salinity, Alkalinity	351.2 Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co Precip	900 0 - Gross Beta Only	903.0 Ra226, 905_Sr90	904 0 - Radium-228	Ra226_228GFPC_P - Local Method	1640 - dissolved Metals (15) Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Sr, Ag, U, V, Zn	1631E - Dissolved Mercury, Total	6010D - Dissolved Metals (6) Ca, Fe, Li, Mg, K, Na	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	S	S	S	D	D	D	D	N	D	A	D		
			~~G~~	Saltwater			2	1	1	3	1	1	2	1	0	1	1	1	34	Samples not field filtered Please filter in lab as necessary
MW 2	7/22/25	11:30	G	Saltwater			2	1	1	3	1	1	2	1	0	1	1	1	34	Samples not field filtered Please filter in lab as necessary

Preservation Codes.
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I Ice
J - DI Water
K EDTA
L EDA
M Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U Acetone
V - MCAA
W pH 4-5
Y - Trizma
Z - other (specify)
Other:

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV Other (specify)

Special Instructions/QC Requirements: Fed Ex. 3913 1720 3056

Empty Kit Relinquished by:	Date:	Time	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7/22/25 14:30	INTERA Inc	[signature] Mark Rusin	7/23/25 930	EEAP

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: (631A) 11.3 + 0.0 = 11.3 ice thawed

Ver: 01/16/2019

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No.
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	624 1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	625 1 SVOCs	8015B/8260D_Hawaii GRO C4-12	8015B_Hawaii DRO C8-24, CRO C24-44	1664A Oil and Grease	608 3 Organochlorine Pesticides	608.3 PCBs	625 1 Sim 1,4-dioxane	8011 Ethylene Dibromide	8015C Ethylene Glycol	U02 Isotopic Uranium	Total Number of containers	Special Instructions/Note: x = testing comes from another container
			Preservation Code:				N	A	N	A	N	S	N	N	N	A	N	D		
			~~G~~	~~Saltwater~~			~~1~~	~~3~~	~~1~~	~~2~~	~~2~~	~~1~~	~~1~~	~~1~~	~~2~~	~~2~~	~~2~~	~~1~~	~~34~~	~~Samples not field filtered. Please filter in lab as necessary~~
MW 2	2/22/25	11:30	G	Saltwater			1	3	1	2	2	1	1	1	2	2	2	1	34	Samples not field filtered Please filter in lab as necessary

Preservation Codes
A HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III IV Other (specify)

Special Instructions/QC Requirements: FedEX: 391317203056

Empty Kit Relinquished by:	Date	Time	Method of Shipment. FEDEX Priority Overnight

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	2/22/25 14:30	INTERA Inc	Mark Urratia	7/23/25 930	EEAP
Relinquished by:					
Relinquished by:					

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks: (631A) 11.3 - 0.0 - 11.3 ice - thawed

Ver 01/16/2019

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

380-162271 COC

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s)	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300, SM2520B, SM4500_SIO2 Br, Cl, F, SO4, Si, Salinity, Alkalinity	351.2 Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co Precip	900.0 - Gross Beta Only	903.0 Ra226, 905_Sr90	904.0 - Radium-228	Ra226_228GFPC_P - Local Method	1640 - dissolved Metals (15) Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Sr, Ag, U, V, Zn	1631E - Dissolved Mercury, Total	6010D - Dissolved Metals (6) Ca, Fe, Li, Mg, K, Na	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	S	S	S	D	D	D	D	N	D	A	D		
			~~G~~	Saltwater			2	1	1	3	1	1	2	1	0	1	1	1	34	Samples not field filtered Please filter in lab as necessary
MW 2	7/22/25	11:30	G	Saltwater			2	1	1	3	1	1	2	1	0	1	1	1	34	Samples not field filtered Please filter in lab as necessary

Preservation Codes.
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I Ice
J - DI Water
K EDTA
L EDA
M Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U Acetone
V - MCAA
W pH 4-5
Y - Trizma
Z - other (specify)
Other:

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV Other (specify)

Special Instructions/QC Requirements: Fed Ex 3913 1720 3056

Empty Kit Relinquished by:	Date:	Time	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7/22/25 14:30	INTERA Inc	[signature] Mark Ursin	7/23/25 930	EEAP

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: (631A) 11.3 + 0.0 = 11.3 ice thawed

Ver: 01/16/2019

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No.
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	624 1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	625 1 SVOCs	8015B/8260D_Hawaii GRO C4-12	8015B_Hawaii DRO C8-24, CRO C24-44	1664A Oil and Grease	608 3 Organochlorine Pesticides	608.3 PCBs	625 1 Sim 1,4-dioxane	8011 Ethylene Dibromide	8015C Ethylene Glycol	U02 Isotopic Uranium	Total Number of containers	Special Instructions/Note: x = testing comes from another container
			Preservation Code:				N	A	N	A	N	S	N	N	N	A	N	D		
			~~G~~	~~Saltwater~~			~~1~~	~~3~~	~~1~~	~~2~~	~~2~~	~~1~~	~~1~~	~~1~~	~~2~~	~~2~~	~~2~~	~~1~~	~~34~~	~~Samples not field filtered. Please filter in lab as necessary~~
MW 2	2/22/25	11:30	G	Saltwater			1	3	1	2	2	1	1	1	2	2	2	1	34	Samples not field filtered Please filter in lab as necessary

Preservation Codes
A HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III IV Other (specify)

Special Instructions/QC Requirements: FedEx: 3913 1720 3056

Empty Kit Relinquished by:	Date	Time	Method of Shipment. FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	2/22/25 14:30	INTERA Inc	[signature] Mark Urratia	7/23/25 930	EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks: (631A) 11.3 - 0.0 - 11.3 ice - thawed

Ver: 01/16/2019

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234500.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM7110C/COPRECIPGross Alpha by Co-Precip	900.0/EvaporationGross Beta Only	903.0/PrecSep_21Radium-226	904.0/PrecSep_0Radium-228	Ra226_228GFPC_P	905_Sr90/PrecSep_7Strontium-90	U02/ExtChrom_ActinStandard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	X	X	X	X	X	X	6	High TDS sample, dilute accordingly, SDWA. High TDS sample, dilute

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
DO	7/24/25 1133	POM	M. Pinette	JUL 28 2025 0820	
			Meadow Pinette		

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234500.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM7110C/COPRECIPGross Alpha by Co-Precip	900.0/EvaporationGross Beta Only	903.0/PrecSep_21Radium-226	904.0/PrecSep_0Radium-228	Ra226_228GFPC_P	905_Sr90/PrecSep_7Strontium-90	U02/ExtChrom_ActinStandard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	X	X	X	X	X	X	6	High TDS sample, dilute accordingly, SDWA. High TDS sample, dilute

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
DO	7/24/25 1133	POM	M. Pinette	JUL 28 2025 0820	
			Meadow Pinette		

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

8/25/2025

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234495.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 5755 8th Street East, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631EMercury, Total	1640/FIELD_FLTRD(MOD) Custom List 7: 19+ Metals	1631E/FIELD_FLTRDMercury, Total	6010D/FIELD_FLTRD(MOD) Custom List 4: 6-7 Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	X	X	X		High TDS sample, dilute accordingly

small blue Coleman

Therm. ID: SC03 Cust. Seal: Y / (N)
Uncorr./Corr. Temp: 2.5 / 3.1 °C
Delivery: UPS / (FedEx) / Other: ____
Ice Type: Blue / Dry / (Wet) / None
Label Ver.: JS Packing: Bubble
7/25/25

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: DO	Date/Time: 7/24/25 1036	Company: POM	Received by: Jesse Sim	Date/Time: 7/25/25 1x:xx	Company: EETN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 10/10/2024

FedEx PO Trk#: 4612 8636 4269

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941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

8/25/2025

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234495.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 5755 8th Street East, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631EMercury, Total	1640/FIELD_FLTRD(MOD) Custom List 7: 19+ Metals	1631E/FIELD_FLTRDMercury, Total	6010D/FIELD_FLTRD(MOD) Custom List 4: 6-7 Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	X	X	X		High TDS sample, dilute accordingly

small blue Coleman

Therm. ID: SC03 Cust. Seal: Y / (N)
Uncorr./Corr. Temp: 2.5 / 3.1 °C
Delivery: UPS / (FedEx) / Other: ____
Ice Type: Blue / Dry / (Wet) / None
Label Ver.: JS Packing: Bubble
7/25/25

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:		
Relinquished by: DO	Date/Time: 7/24/25 1036	Company: POM	Received by: Jesse Sim	Date/Time: 7/25/25 1x:xx	Company: EETN	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Ver: 10/10/2024

FedEx PO Trk#: 4612 8636 4269

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234495.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 5755 8th Street East, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631EMercury, Total	1640/FIELD_FLTRD(MOD) Custom List 7: 19+ Metals	1631E/FIELD_FLTRDMercury, Total	6010D/FIELD_FLTRD(MOD) Custom List 4: 6-7 Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	X	X	X		High TDS sample, dilute accordingly
												small blue Coleman

Therm. ID: SC03 Cust. Seal: Y / (N)
Uncorr./Corr. Temp: 2.5 / 3.1 °C
Delivery: UPS / (FedEx) / Other: ____
Ice Type: Blue / Dry / (Wet) / None
Label Ver.: JS Packing: Bubble
7/25/25

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: DO	Date/Time: 7/24/25 1036	Company POM	Received by: Jesse Sign	Date/Time: 7/25/25 10:00	Company EETN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 10/10/2024

FedEx on Trk#: 4612 8636 4869

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234495.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 5755 8th Street East, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Total Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631EMercury, Total	1640/FIELD_FLTRD(MOD) Custom List 7: 19+ Metals	1631E/FIELD_FLTRDMercury, Total	6010D/FIELD_FLTRD(MOD) Custom List 4: 6-7 Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	X	X	X		High TDS sample, dilute accordingly
												small blue Coleman

Therm. ID: SC03 Cust. Seal: Y / (N)
Uncorr./Corr. Temp: 2.5 / 3.1 °C
Delivery: UPS / (FedEx) / Other: ____
Ice Type: Blue / Dry / (Wet) / None
Label Ver.: JS Packing: Bubble
7/25/25

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: DO	Date/Time: 7/24/25 1036	Company POM	Received by: Jesse Sign	Date/Time: 7/25/25 1[illegible]:[illegible]	Company EETN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 10/10/2024

FedEx PO Trk#: 4612 8636 4869

8/25/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234484.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	X	X	3	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
DO	7/24/25 0909	POM			
				7/25/25 0940	ELET

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 3.0 C: 3.0

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234484.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	X	X	3	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
DO	7/24/25 0909	POM			
				7/25/25 0918	EET

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: R: 3.0 C: 3.0

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | En

Loc: 380
162271

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234474.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	2540C_CalcdTotal Dissolved Solids (TDS)	5310CTOC, Standard analysis, 3 replicates	6010D/3005A(MOD) Custom 6010D Metals List	8015B_GRO/5030C(MOD) Gasoline Range Organics	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	16	High TDS sample, dilute accordingly.

380-162271 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Xm	7/24/25 1100	EEA		7/24/25 1100	RC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.9 | 0.9 IR92

Ver: 10/10/2024

8/25/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234474.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	16	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	7/24/25 1100	EEA	[signature]	7/24/25 1100	EEC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | En

Loc: 380
162271

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234474.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	2540C_CalcdTotal Dissolved Solids (TDS)	5310CTOC, Standard analysis, 3 replicates	6010D/3005A(MOD) Custom 6010D Metals List	8015B_GRO/5030C(MOD) Gasoline Range Organics	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	16	High TDS sample, dilute accordingly.

380-162271 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

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Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Xm	7/24/25 1100	EBA	[signature]	7/24/25 1100	RC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.9 | 0.9 IR92

Ver: 10/10/2024

8/25/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234474.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162271-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW 2 (380-162271-1)	7/22/25	11:30 Hawaiian	G	Water			X	16	High TDS sample, dilute accordingly

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Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Xan	7/24/25 1100	EEA	[signature]	7/24/25 1100	EEC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Elizabeth Anthony

From: Jonathan West
Sent: Friday, August 1, 2025 6:07 PM
To: Leah Foreman; William Saadeh; Maria Lopez; Lancaster - Semivolatiles (4026) Contacts; Lancaster - Sample Administration Employees; Teresa Cunningham
Cc: Lancaster - SubContracting
Subject: RE: Regarding job 380-162271-1 (Sent from Ops Desktop)

Follow Up Flag: Follow up
Flag Status: Flagged

Verified Sender: This email is from an internal and/or verified domain which passed security verifications. Remember to still be cautious with personal data and follow company policies.

"AE" and "AF" have been placed on the subcontracting shelf.

Thanks,
Jonathan West

380-162271 Chain of Custody

From: Leah Foreman <Leah.Foreman@et.eurofinsus.com>
Sent: Friday, August 1, 2025 5:41 PM
To: William Saadeh <William.Saadeh@et.eurofinsus.com>; Maria Lopez <Maria.Lopez@et.eurofinsus.com>; Lancaster - Semivolatiles (4026) Contacts <Lancaster-Semivolatiles?4026?Contacts@et.eurofinsus.com>; Lancaster - Sample Administration Employees <Lancaster-SampleAdministrationEmployees@et.eurofinsus.com>; Teresa Cunningham <Teresa.Cunningham@et.eurofinsus.com>
Cc: Lancaster - SubContracting <lancastersubcontract@et.eurofinsus.com>
Subject: RE: Regarding job 380-162271-1 (Sent from Ops Desktop)

Verified Sender: This email is from an internal and/or verified domain which passed security verifications. Remember to still be cautious with personal data and follow company policies.

Yes, we do have 2 1L containers here. I will place a req for the "AE" and "AF" to have these shipped to Calscience Monday.

From: William Saadeh <William.Saadeh@et.eurofinsus.com>
Sent: Friday, August 1, 2025 5:37 PM
To: Maria Lopez <Maria.Lopez@et.eurofinsus.com>; Lancaster - Semivolatiles (4026) Contacts <Lancaster-Semivolatiles?4026?Contacts@et.eurofinsus.com>; Lancaster - Sample Administration Employees <Lancaster-SampleAdministrationEmployees@et.eurofinsus.com>; Teresa Cunningham <Teresa.Cunningham@et.eurofinsus.com>
Subject: RE: Regarding job 380-162271-1 (Sent from Ops Desktop)

Verified Sender: This email is from an internal and/or verified domain which passed security verifications. Remember to still be cautious with personal data and follow company policies.

Sample admin and Teresa – see below from Cal Science

Elizabeth Anthony 8/4/25 14:26 EDT

Thank you,

1.6/1.9 SC11

1

Julijud EC 8/6/25 9:30

Will Saadeh
Manager
GCMS Semivolatile Organic Analysis
Eurofins Lancaster Laboratories
Environment Testing, LLC
2425 New Holland Pike
Lancaster, PA 17601
USA
Phone: +1 717-556-9347

www.EurofinsUS.com/LancLabsEnv

From: TALS <TALS@reports.et.eurofinsus.com>
Sent: Friday, August 1, 2025 5:16 PM
To: Lancaster - Semivolatiles (4026) Contacts <Lancaster-Semivolatiles?4026?Contacts@et.eurofinsus.com>
Subject: Regarding job 380-162271-1 (Sent from Ops Desktop)
Importance: High

Verified Sender: This email is from an internal and/or verified domain which passed security verifications. Remember to still be cautious with personal data and follow company policies.

Regarding:

Hello Lancater Team,

I see is in TALS that we shipped out three 1 liter amber bottles that two should have gone to Calscience. By any chance are these containers available to ship to Calscience? I see in TALS open times but was hoping this was a mistake.

Job: 380-162271-1
Description: Kalealoa Desalination Project
Project Manager: Lopez, Maria
Client: INTERA Inc
Method: 8011
Sample Count: 1
Status: LComp
Due Date: 08/21/2025

Job: 380-162271-1
Description: Kalealoa Desalination Project
Project Manager: Lopez, Maria
Client: INTERA Inc
Method: 625.1_SIM_PREC
Sample Count: 1
Status: LComp

Elizabeth Anthony

From: Jonathan West
Sent: Friday, August 1, 2025 6:07 PM
To: Leah Foreman; William Saadeh; Maria Lopez; Lancaster - Semivolatiles (4026) Contacts; Lancaster - Sample Administration Employees; Teresa Cunningham
Cc: Lancaster - SubContracting
Subject: RE: Regarding job 380-162271-1 (Sent from Ops Desktop)

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380-162271 Chain of Custody

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Sent: Friday, August 1, 2025 5:41 PM
To: William Saadeh <William.Saadeh@et.eurofinsus.com>; Maria Lopez <Maria.Lopez@et.eurofinsus.com>; Lancaster - Semivolatiles (4026) Contacts <Lancaster-Semivolatiles?4026?Contacts@et.eurofinsus.com>; Lancaster - Sample Administration Employees <Lancaster-SampleAdministrationEmployees@et.eurofinsus.com>; Teresa Cunningham <Teresa.Cunningham@et.eurofinsus.com>
Cc: Lancaster - SubContracting <lancastersubcontract@et.eurofinsus.com>
Subject: RE: Regarding job 380-162271-1 (Sent from Ops Desktop)

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From: William Saadeh <William.Saadeh@et.eurofinsus.com>
Sent: Friday, August 1, 2025 5:37 PM
To: Maria Lopez <Maria.Lopez@et.eurofinsus.com>; Lancaster - Semivolatiles (4026) Contacts <Lancaster-Semivolatiles?4026?Contacts@et.eurofinsus.com>; Lancaster - Sample Administration Employees <Lancaster-SampleAdministrationEmployees@et.eurofinsus.com>; Teresa Cunningham <Teresa.Cunningham@et.eurofinsus.com>
Subject: RE: Regarding job 380-162271-1 (Sent from Ops Desktop)

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Elizabeth Anthony 8/4/25 14:26 EAET

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1.6/1.9 SC11

1

Julijud EC 8/6/25 9:30

Will Saadeh
Manager
GCMS Semivolatile Organic Analysis
Eurofins Lancaster Laboratories
Environment Testing, LLC
2425 New Holland Pike
Lancaster, PA 17601
USA
Phone: +1 717-556-9347

www.EurofinsUS.com/LancLabsEnv

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Sent: Friday, August 1, 2025 5:16 PM
To: Lancaster - Semivolatiles (4026) Contacts <Lancaster-Semivolatiles?4026?Contacts@et.eurofinsus.com>
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Importance: High

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Job: 380-162271-1
Description: Kalealoa Desalination Project
Project Manager: Lopez, Maria
Client: INTERA Inc
Method: 8011
Sample Count: 1
Status: LComp
Due Date: 08/21/2025

Job: 380-162271-1
Description: Kalealoa Desalination Project
Project Manager: Lopez, Maria
Client: INTERA Inc
Method: 625.1_SIM_PREC
Sample Count: 1
Status: LComp

eurofins | Environment Testing

Date:	7/25/2025
End Time:	19:25
KI Paper Lot:	N/A
Analyst:	JS
Pipette:	N/A

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	88442
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-162271-K-1	A	Y	5/2	

JS 7/25/25

eurofins | Environment Testing

Date:	7/25/2025
End Time:	19:25
KI Paper Lot:	N/A
Analyst:	JS
Pipette:	N/A

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	88442
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-162271-K-1	A	Y	5/2	

JS 7/25/25

eurofins | Environment Testing

Date:	7/29/2025
End Time:	13:07
pH Paper Lot:	hc441704
Analyst:	R
Pipette:	MP_TM06

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	~~na~~ 83146
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID		Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-162271-S-1		72	<2	A	.5	NA

eurofins | Environment Testing

Date:	7/29/2025
End Time:	13:07
pH Paper Lot:	hc441704
Analyst:	R
Pipette:	MP_TM06

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	~~na~~ 83146
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID		Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-162271-S-1		72	<2	A	.5	NA

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162271-1
SDG Number: MW 2

Login Number: 162271
List Number: 1
Creator: Sanchez Velasquez, Gustavo

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162271-1
SDG Number: MW 2

Login Number: 162271
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 07/24/25 12:55 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162271-1
SDG Number: MW 2

Login Number: 162271
List Number: 6
Creator: Le, Sunny

List Source: Eurofins Calscience
List Creation: 08/06/25 09:54 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162271-1
SDG Number: MW 2

Login Number: 162271
List Number: 7
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 08/06/25 11:38 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162271-1
SDG Number: MW 2

Login Number: 162271
List Number: 3
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 07/25/25 10:23 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162271-1
SDG Number: MW 2

Login Number: 162271
List Number: 5
Creator: Singh, Jaskaran

List Source: Eurofins Seattle Specialty Metals
List Creation: 07/25/25 08:03 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162271-1
SDG Number: MW 2

Login Number: 162271
List Number: 4
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 07/25/25 12:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

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JOB DESCRIPTION

Kalealoa Desalination Project
MW 1/MW 2

JOB NUMBER

380-162135-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

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Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Authorized for release by
Maria Lopez, Project Manager
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Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Isotope Dilution Summary 11
QC Sample Results 13
QC Association Summary 21
Lab Chronicle 22
Certification Summary 23
Method Summary 24
Sample Summary 25
Chain of Custody 26
Receipt Checklists 30

Qualifiers

LCMS

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-162135-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 7/23/2025 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C.

PFAS
Method 1633_Final: One or more sample extract(s) was diluted (as indicated in the report) due to either QC anomalies or high target analyte concentration(s). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162135-1
SDG: MW 1/MW 2

Client Sample ID: MW 1 — Lab Sample ID: 380-162135-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	77		1.5		ng/L	1		1633	Total/NA
Perfluorobutanoic acid (PFBA)	230		2.9		ng/L	1		1633	Total/NA
Perfluorodecanoic acid (PFDA)	4.4		1.5		ng/L	1		1633	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	9.3		1.5		ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	98		1.5		ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	120		1.5		ng/L	1		1633	Total/NA
Perfluorononanoic acid (PFNA)	34		1.5		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	280		1.5		ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	84		1.5		ng/L	1		1633	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	82		1.5		ng/L	1		1633	Total/NA
Perfluoropentanoic acid (PFPeA)	130		1.5		ng/L	1		1633	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.1		1.5		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	460		15		ng/L	10		1633	Total/NA

Client Sample ID: MW 2 — Lab Sample ID: 380-162135-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	86		1.6		ng/L	1		1633	Total/NA
Perfluorobutanoic acid (PFBA)	210		3.2		ng/L	1		1633	Total/NA
Perfluorodecanoic acid (PFDA)	5.4		1.6		ng/L	1		1633	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	8.7		1.6		ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	120		1.6		ng/L	1		1633	Total/NA
Perfluorononanoic acid (PFNA)	36		1.6		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	280		1.6		ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	93		1.6		ng/L	1		1633	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	80		1.6		ng/L	1		1633	Total/NA
Perfluoropentanoic acid (PFPeA)	140		1.6		ng/L	1		1633	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.4		1.6		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	500		16		ng/L	10		1633	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	200		16		ng/L	10		1633	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162135-1
SDG: MW 1/MW 2

Client Sample ID: MW 1

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162135-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.9		ng/L		07/31/25 12:21	08/01/25 15:48	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.9		ng/L		07/31/25 12:21	08/01/25 15:48	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.9		ng/L		07/31/25 12:21	08/01/25 15:48	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.3		ng/L		07/31/25 12:21	08/01/25 15:48	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.3		ng/L		07/31/25 12:21	08/01/25 15:48	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		2.9		ng/L		07/31/25 12:21	08/01/25 15:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.1		ng/L		07/31/25 12:21	08/01/25 15:48	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.3		ng/L		07/31/25 12:21	08/01/25 15:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.3		ng/L		07/31/25 12:21	08/01/25 15:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorobutanesulfonic acid (PFBS)	**77**		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorobutanoic acid (PFBA)	**230**		2.9		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorodecanoic acid (PFDA)	**4.4**		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorododecanoic acid (PFDoA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluoroheptanesulfonic acid (PFHpS)	**9.3**		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluoroheptanoic acid (PFHpA)	**98**		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorohexanoic acid (PFHxA)	**120**		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorononanoic acid (PFNA)	**34**		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 15:48	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162135-1
SDG: MW 1/MW 2

Client Sample ID: MW 1

Lab Sample ID: 380-162135-1
Matrix: Water

Date Collected: 07/22/25 10:30
Date Received: 07/23/25 09:30

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**280**		1.5	ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorooctanoic acid (PFOA)	**84**		1.5	ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluoropentanesulfonic acid (PFPeS)	**82**		1.5	ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluoropentanoic acid (PFPeA)	**130**		1.5	ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	ng/L		07/31/25 12:21	08/01/25 15:48	1
Perfluoroundecanoic acid (PFUnA)	**2.1**		1.5	ng/L		07/31/25 12:21	08/01/25 15:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*154*		*40 - 200*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C2 6:2 FTS	*141*		*40 - 200*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C2 8:2 FTS	*111*		*40 - 300*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C2 PFDoA	*86.9*		*10 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C2 PFTeDA	*90.5*		*10 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C3 HFPO-DA	*110*		*40 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C3 PFBS	*114*		*40 - 135*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C3 PFHxS	*103*		*40 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C4 PFBA	*96.8*		*5 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C4 PFHpA	*102*		*40 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C5 PFHxA	*103*		*40 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C5 PFPeA	*86.4*		*40 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C6 PFDA	*110*		*40 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C7 PFUnA	*113*		*30 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C8 FOSA	*83.5*		*40 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C8 PFOA	*95.3*		*40 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C8 PFOS	*93.1*		*40 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
13C9 PFNA	*108*		*40 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
d3-NMeFOSAA	*89.0*		*40 - 170*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
d3-NMePFOSA	*69.0*		*10 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
d5-NEtFOSAA	*97.1*		*25 - 135*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
d5-NEtPFOSA	*71.8*		*10 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
d7-N-MeFOSE-M	*68.3*		*10 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*
d9-N-EtFOSE-M	*70.8*		*10 - 130*	*07/31/25 12:21*	*08/01/25 15:48*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**460**		15	ng/L		07/31/25 12:21	08/03/25 11:52	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 PFHxS	*113*	**3*	*40 - 130*	*07/31/25 12:21*	*08/03/25 11:52*	*10*

Client Sample ID: MW 2

Lab Sample ID: 380-162135-2
Matrix: Water

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	ng/L		07/31/25 12:21	08/01/25 16:05	1

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162135-2

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2		ng/L		07/31/25 12:21	08/01/25 16:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2		ng/L		07/31/25 12:21	08/01/25 16:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2		ng/L		07/31/25 12:21	08/01/25 16:05	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.0		ng/L		07/31/25 12:21	08/01/25 16:05	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.0		ng/L		07/31/25 12:21	08/01/25 16:05	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2		ng/L		07/31/25 12:21	08/01/25 16:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2		ng/L		07/31/25 12:21	08/01/25 16:05	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.0		ng/L		07/31/25 12:21	08/01/25 16:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.0		ng/L		07/31/25 12:21	08/01/25 16:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorobutanesulfonic acid (PFBS)	**86**		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorobutanoic acid (PFBA)	**210**		3.2		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorodecanoic acid (PFDA)	**5.4**		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluoroheptanesulfonic acid (PFHpS)	**8.7**		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluoroheptanoic acid (PFHpA)	**120**		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorononanoic acid (PFNA)	**36**		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorooctanesulfonic acid (PFOS)	**280**		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorooctanoic acid (PFOA)	**93**		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1

Client Sample ID: MW 2

Date Collected: 07/22/25 11:30
Date Received: 07/23/25 09:30

Lab Sample ID: 380-162135-2

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	**80**		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluoropentanoic acid (PFPeA)	**140**		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1
Perfluoroundecanoic acid (PFUnA)	**2.4**		1.6		ng/L		07/31/25 12:21	08/01/25 16:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*63.7*		*40 - 200*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C2 6:2 FTS	*77.3*		*40 - 200*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C2 8:2 FTS	*73.3*		*40 - 300*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C2 PFDoA	*59.3*		*10 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C2 PFTeDA	*69.2*		*10 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C3 HFPO-DA	*62.7*		*40 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C3 PFBS	*56.8*		*40 - 135*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C3 PFHxS	*62.3*		*40 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C4 PFBA	*51.0*		*5 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C4 PFHpA	*58.3*		*40 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C5 PFHxA	*57.7*		*40 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C5 PFPeA	*54.7*		*40 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C6 PFDA	*61.0*		*40 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C7 PFUnA	*65.9*		*30 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C8 FOSA	*54.4*		*40 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C8 PFOA	*52.7*		*40 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C8 PFOS	*64.7*		*40 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
13C9 PFNA	*58.3*		*40 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
d3-NMeFOSAA	*63.8*		*40 - 170*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
d3-NMePFOSA	*55.1*		*10 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
d5-NEtFOSAA	*74.4*		*25 - 135*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
d5-NEtPFOSA	*59.6*		*10 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
d7-N-MeFOSE-M	*57.2*		*10 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*
d9-N-EtFOSE-M	*59.6*		*10 - 130*	*07/31/25 12:21*	*08/01/25 16:05*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - DL

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**500**		16		ng/L		07/31/25 12:21	08/03/25 12:09	10
Perfluorohexanoic acid (PFHxA)	**200**		16		ng/L		07/31/25 12:21	08/03/25 12:09	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 PFHxS	*61.7*	**3*	*40 - 130*	*07/31/25 12:21*	*08/03/25 12:09*	*10*
13C5 PFHxA	*50.8*	**3*	*40 - 130*	*07/31/25 12:21*	*08/03/25 12:09*	*10*

Isotope Dilution Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162135-1
SDG: MW 1/MW 2

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (40-200)	M262FTS (40-200)	M282FTS (40-300)	PFDoA (10-130)	PFTDA (10-130)	HFPODA (40-130)	C3PFBS (40-135)	C3PFHS (40-130)
380-162135-1	MW 1	154	141	111	86.9	90.5	110	114	103
380-162135-1 - DL	MW 1								113 *3
380-162135-2	MW 2	63.7	77.3	73.3	59.3	69.2	62.7	56.8	62.3
380-162135-2 - DL	MW 2								61.7 *3
LCS 320-867095/3-A	Lab Control Sample	110	103	93.5	88.8	107	85.7	93.9	105
LCSD 320-867095/4-A	Lab Control Sample Dup	93.9	107	101	84.5	92.5	100	99.5	111
LLCS 320-867095/2-A	Lab Control Sample	104	105	107	100	113	88.5	94.8	101
MB 320-867095/1-A	Method Blank	131	99.7	96.0	78.3	75.7	85.6	96.3	98.4

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	C4PFHA (40-130)	13C5PHA (40-130)	PFPeA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)	PFOSA (40-130)	C8PFOA (40-130)
380-162135-1	MW 1	96.8	102	103	86.4	110	113	83.5	95.3
380-162135-1 - DL	MW 1								
380-162135-2	MW 2	51.0	58.3	57.7	54.7	61.0	65.9	54.4	52.7
380-162135-2 - DL	MW 2			50.8 *3					
LCS 320-867095/3-A	Lab Control Sample	96.1	81.5	102	89.5	104	119	88.0	92.0
LCSD 320-867095/4-A	Lab Control Sample Dup	97.6	106	109	101	111	128	74.2	95.4
LLCS 320-867095/2-A	Lab Control Sample	90.1	95.0	108	101	112	122	82.2	111
MB 320-867095/1-A	Method Blank	92.0	94.0	101	91.6	99.5	102	70.4	99.1

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	C8PFOS (40-130)	C9PFNA (40-130)	d3NMFOS (40-170)	d3NMFSA (10-130)	d5NEFOS (25-135)	d5NPFSA (10-130)	NMFM (10-130)	NEFM (10-130)
380-162135-1	MW 1	93.1	108	89.0	69.0	97.1	71.8	68.3	70.8
380-162135-1 - DL	MW 1								
380-162135-2	MW 2	64.7	58.3	63.8	55.1	74.4	59.6	57.2	59.6
380-162135-2 - DL	MW 2								
LCS 320-867095/3-A	Lab Control Sample	102	101	98.2	70.8	110	77.1	83.6	88.6
LCSD 320-867095/4-A	Lab Control Sample Dup	104	98.9	95.1	60.4	102	66.4	60.9	60.2
LLCS 320-867095/2-A	Lab Control Sample	106	92.0	103	66.8	111	71.9	82.0	77.7
MB 320-867095/1-A	Method Blank	103	89.5	95.7	58.3	102	63.8	64.4	68.5

Surrogate Legend

M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
HFPODA = 13C3 HFPO-DA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
13C5PHA = 13C5 PFHxA
PFPeA = 13C5 PFPeA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS

Isotope Dilution Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162135-1
SDG: MW 1/MW 2

C9PFNA = 13C9 PFNA
d3NMFOS = d3-NMeFOSAA
d3NMFSA = d3-NMePFOSA
d5NEFOS = d5-NEtFOSAA
d5NPFSA = d5-NEtPFOSA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 320-867095/1-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 867095

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10		ng/L		07/31/25 12:21	08/01/25 09:31	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10		ng/L		07/31/25 12:21	08/01/25 09:31	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5		ng/L		07/31/25 12:21	08/01/25 09:31	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10		ng/L		07/31/25 12:21	08/01/25 09:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10		ng/L		07/31/25 12:21	08/01/25 09:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		07/31/25 12:21	08/01/25 09:31	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 320-867095/1-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 867095

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorooctanoic acid (PFOA)	ND		2.0	ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	ng/L		07/31/25 12:21	08/01/25 09:31	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	ng/L		07/31/25 12:21	08/01/25 09:31	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*131*		*40 - 200*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C2 6:2 FTS	*99.7*		*40 - 200*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C2 8:2 FTS	*96.0*		*40 - 300*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C2 PFDoA	*78.3*		*10 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C2 PFTeDA	*75.7*		*10 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C3 HFPO-DA	*85.6*		*40 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C3 PFBS	*96.3*		*40 - 135*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C3 PFHxS	*98.4*		*40 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C4 PFBA	*92.0*		*5 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C4 PFHpA	*94.0*		*40 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C5 PFHxA	*101*		*40 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C5 PFPeA	*91.6*		*40 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C6 PFDA	*99.5*		*40 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C7 PFUnA	*102*		*30 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C8 FOSA	*70.4*		*40 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C8 PFOA	*99.1*		*40 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C8 PFOS	*103*		*40 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
13C9 PFNA	*89.5*		*40 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
d3-NMeFOSAA	*95.7*		*40 - 170*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
d3-NMePFOSA	*58.3*		*10 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
d5-NEtFOSAA	*102*		*25 - 135*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
d5-NEtPFOSA	*63.8*		*10 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
d7-N-MeFOSE-M	*64.4*		*10 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*
d9-N-EtFOSE-M	*68.5*		*10 - 130*	*07/31/25 12:21*	*08/01/25 09:31*	*1*

Lab Sample ID: LCS 320-867095/3-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	39.2		ng/L		104	55 - 160
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	86.4		ng/L		113	60 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	77.5		ng/L		103	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	74.3		ng/L		98	65 - 155

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-867095/3-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	155		ng/L		78	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	174		ng/L		87	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	80.5		ng/L		101	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	39.6		ng/L		105	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	41.0		ng/L		110	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	32.7		ng/L		109	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	41.9		ng/L		105	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	209		ng/L		105	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.7		ng/L		97	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	45.7		ng/L		114	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	225		ng/L		112	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	44.2		ng/L		110	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	36.1		ng/L		90	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	34.7		ng/L		97	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	44.2		ng/L		110	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	41.1		ng/L		103	60 - 150
Perfluorobutanesulfonic acid (PFBS)	35.5	42.2		ng/L		119	60 - 145
Perfluorobutanoic acid (PFBA)	80.0	95.7		ng/L		120	70 - 140
Perfluorodecanesulfonic acid (PFDS)	38.6	42.4		ng/L		110	60 - 145
Perfluorodecanoic acid (PFDA)	40.0	42.8		ng/L		107	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	38.8	37.5		ng/L		97	50 - 145
Perfluorododecanoic acid (PFDoA)	40.0	49.0		ng/L		122	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	38.2	44.2		ng/L		116	70 - 150
Perfluoroheptanoic acid (PFHpA)	40.0	46.8		ng/L		117	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	36.5	36.4		ng/L		100	65 - 145
Perfluorohexanoic acid (PFHxA)	40.0	37.8		ng/L		95	70 - 145
Perfluorononanesulfonic acid (PFNS)	38.5	42.9		ng/L		111	65 - 145
Perfluorononanoic acid (PFNA)	40.0	37.3		ng/L		93	70 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	44.4		ng/L		111	70 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-867095/3-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	37.2	38.7		ng/L		104	55 - 150
Perfluorooctanoic acid (PFOA)	40.0	43.0		ng/L		108	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	37.6	35.3		ng/L		94	65 - 140
Perfluoropentanoic acid (PFPeA)	40.0	45.7		ng/L		114	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	40.0	34.7		ng/L		87	60 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	42.2		ng/L		106	65 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	41.6		ng/L		104	70 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 4:2 FTS	*110*		*40 - 200*
13C2 6:2 FTS	*103*		*40 - 200*
13C2 8:2 FTS	*93.5*		*40 - 300*
13C2 PFDoA	*88.8*		*10 - 130*
13C2 PFTeDA	*107*		*10 - 130*
13C3 HFPO-DA	*85.7*		*40 - 130*
13C3 PFBS	*93.9*		*40 - 135*
13C3 PFHxS	*105*		*40 - 130*
13C4 PFBA	*96.1*		*5 - 130*
13C4 PFHpA	*81.5*		*40 - 130*
13C5 PFHxA	*102*		*40 - 130*
13C5 PFPeA	*89.5*		*40 - 130*
13C6 PFDA	*104*		*40 - 130*
13C7 PFUnA	*119*		*30 - 130*
13C8 FOSA	*88.0*		*40 - 130*
13C8 PFOA	*92.0*		*40 - 130*
13C8 PFOS	*102*		*40 - 130*
13C9 PFNA	*101*		*40 - 130*
d3-NMeFOSAA	*98.2*		*40 - 170*
d3-NMePFOSA	*70.8*		*10 - 130*
d5-NEtFOSAA	*110*		*25 - 135*
d5-NEtPFOSA	*77.1*		*10 - 130*
d7-N-MeFOSE-M	*83.6*		*10 - 130*
d9-N-EtFOSE-M	*88.6*		*10 - 130*

Lab Sample ID: LCSD 320-867095/4-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 867095

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	37.2		ng/L		99	55 - 160	5	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	84.5		ng/L		110	60 - 150	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	80.4		ng/L		107	70 - 145	4	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-867095/4-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 867095

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			76.2	77.3		ng/L		101	65 - 155	4	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	159		ng/L		80	50 - 145	3	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	187		ng/L		94	70 - 135	7	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	74.4		ng/L		93	65 - 130	8	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	43.3		ng/L		114	65 - 145	9	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	41.6		ng/L		111	70 - 155	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			30.0	32.4		ng/L		108	70 - 140	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			40.0	41.1		ng/L		103	65 - 145	2	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			200	219		ng/L		109	70 - 135	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	37.5		ng/L		94	70 - 145	3	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			40.0	44.7		ng/L		112	60 - 150	2	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			200	236		ng/L		118	70 - 145	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	44.1		ng/L		110	50 - 140	0	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	35.8		ng/L		90	50 - 150	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	37.7		ng/L		106	70 - 140	8	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			40.0	41.9		ng/L		105	55 - 140	5	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			40.0	41.4		ng/L		104	60 - 150	1	30
Perfluorobutanesulfonic acid (PFBS)			35.5	40.1		ng/L		113	60 - 145	5	30
Perfluorobutanoic acid (PFBA)			80.0	95.5		ng/L		119	70 - 140	0	30
Perfluorodecanesulfonic acid (PFDS)			38.6	36.5		ng/L		95	60 - 145	15	30
Perfluorodecanoic acid (PFDA)			40.0	39.3		ng/L		98	70 - 140	9	30
Perfluorododecanesulfonic acid (PFDoS)			38.8	29.9		ng/L		77	50 - 145	22	30
Perfluorododecanoic acid (PFDoA)			40.0	48.7		ng/L		122	70 - 140	1	30
Perfluoroheptanesulfonic acid (PFHpS)			38.2	44.4		ng/L		116	70 - 150	0	30
Perfluoroheptanoic acid (PFHpA)			40.0	43.7		ng/L		109	70 - 150	7	30
Perfluorohexanesulfonic acid (PFHxS)			36.5	33.9		ng/L		93	65 - 145	7	30
Perfluorohexanoic acid (PFHxA)			40.0	40.6		ng/L		102	70 - 145	7	30
Perfluorononanesulfonic acid (PFNS)			38.5	38.8		ng/L		101	65 - 145	10	30
Perfluorononanoic acid (PFNA)			40.0	40.5		ng/L		101	70 - 150	8	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-867095/4-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 867095

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonamide (PFOSA)			40.0	44.2		ng/L		111	70 - 145	0	30
Perfluorooctanesulfonic acid (PFOS)			37.2	39.4		ng/L		106	55 - 150	2	30
Perfluorooctanoic acid (PFOA)			40.0	42.5		ng/L		106	70 - 150	1	30
Perfluoropentanesulfonic acid (PFPeS)			37.6	37.0		ng/L		98	65 - 140	5	30
Perfluoropentanoic acid (PFPeA)			40.0	45.7		ng/L		114	65 - 135	0	30
Perfluorotetradecanoic acid (PFTeDA)			40.0	34.8		ng/L		87	60 - 140	0	30
Perfluorotridecanoic acid (PFTrDA)			40.0	39.7		ng/L		99	65 - 140	6	30
Perfluoroundecanoic acid (PFUnA)			40.0	34.8		ng/L		87	70 - 145	18	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2 4:2 FTS	*93.9*		*40 - 200*
13C2 6:2 FTS	*107*		*40 - 200*
13C2 8:2 FTS	*101*		*40 - 300*
13C2 PFDoA	*84.5*		*10 - 130*
13C2 PFTeDA	*92.5*		*10 - 130*
13C3 HFPO-DA	*100*		*40 - 130*
13C3 PFBS	*99.5*		*40 - 135*
13C3 PFHxS	*111*		*40 - 130*
13C4 PFBA	*97.6*		*5 - 130*
13C4 PFHpA	*106*		*40 - 130*
13C5 PFHxA	*109*		*40 - 130*
13C5 PFPeA	*101*		*40 - 130*
13C6 PFDA	*111*		*40 - 130*
13C7 PFUnA	*128*		*30 - 130*
13C8 FOSA	*74.2*		*40 - 130*
13C8 PFOA	*95.4*		*40 - 130*
13C8 PFOS	*104*		*40 - 130*
13C9 PFNA	*98.9*		*40 - 130*
d3-NMeFOSAA	*95.1*		*40 - 170*
d3-NMePFOSA	*60.4*		*10 - 130*
d5-NEtFOSAA	*102*		*25 - 135*
d5-NEtPFOSA	*66.4*		*10 - 130*
d7-N-MeFOSE-M	*60.9*		*10 - 130*
d9-N-EtFOSE-M	*60.2*		*10 - 130*

Lab Sample ID: LLCS 320-867095/2-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867095

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			3.78	4.58		ng/L		121	55 - 160		
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			7.68	8.26		ng/L		107	60 - 150		

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-867095/2-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867095

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	8.09		ng/L		108	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	8.58		ng/L		113	65 - 155
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	17.0		ng/L		85	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	18.0		ng/L		90	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	7.40		ng/L		92	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	4.54		ng/L		120	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	4.95		ng/L		133	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	3.66		ng/L		122	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.63		ng/L		116	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	23.8		ng/L		119	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	4.17		ng/L		104	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.90		ng/L		123	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	23.6		ng/L		118	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.63		ng/L		116	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.46		ng/L		112	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.65		ng/L		102	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.89		ng/L		97	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.76		ng/L		119	60 - 150
Perfluorobutanesulfonic acid (PFBS)	3.55	4.45		ng/L		125	60 - 145
Perfluorobutanoic acid (PFBA)	8.00	10.3		ng/L		128	70 - 140
Perfluorodecanesulfonic acid (PFDS)	3.86	3.86		ng/L		100	60 - 145
Perfluorodecanoic acid (PFDA)	4.00	4.51		ng/L		113	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	3.88	4.09		ng/L		105	50 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.99		ng/L		125	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	3.82	4.25		ng/L		112	70 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	4.72		ng/L		118	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	3.65	4.13		ng/L		113	65 - 145
Perfluorohexanoic acid (PFHxA)	4.00	4.32		ng/L		108	70 - 145
Perfluorononanesulfonic acid (PFNS)	3.85	4.31		ng/L		112	65 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-867095/2-A
Matrix: Water
Analysis Batch: 867291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867095

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanoic acid (PFNA)	4.00	4.34		ng/L		108	70 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.77		ng/L		119	70 - 145
Perfluorooctanesulfonic acid (PFOS)	3.72	4.13		ng/L		111	55 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.55		ng/L		114	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	3.76	4.03		ng/L		107	65 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.62		ng/L		115	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.91		ng/L		98	60 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.55		ng/L		114	65 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.49		ng/L		112	70 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 4:2 FTS	*104*		*40 - 200*
13C2 6:2 FTS	*105*		*40 - 200*
13C2 8:2 FTS	*107*		*40 - 300*
13C2 PFDoA	*100*		*10 - 130*
13C2 PFTeDA	*113*		*10 - 130*
13C3 HFPO-DA	*88.5*		*40 - 130*
13C3 PFBS	*94.8*		*40 - 135*
13C3 PFHxS	*101*		*40 - 130*
13C4 PFBA	*90.1*		*5 - 130*
13C4 PFHpA	*95.0*		*40 - 130*
13C5 PFHxA	*108*		*40 - 130*
13C5 PFPeA	*101*		*40 - 130*
13C6 PFDA	*112*		*40 - 130*
13C7 PFUnA	*122*		*30 - 130*
13C8 FOSA	*82.2*		*40 - 130*
13C8 PFOA	*111*		*40 - 130*
13C8 PFOS	*106*		*40 - 130*
13C9 PFNA	*92.0*		*40 - 130*
d3-NMeFOSAA	*103*		*40 - 170*
d3-NMePFOSA	*66.8*		*10 - 130*
d5-NEtFOSAA	*111*		*25 - 135*
d5-NEtPFOSA	*71.9*		*10 - 130*
d7-N-MeFOSE-M	*82.0*		*10 - 130*
d9-N-EtFOSE-M	*77.7*		*10 - 130*

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162135-1
SDG: MW 1/MW 2

LCMS

Prep Batch: 867095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162135-1	MW 1	Total/NA	Water	1633	
380-162135-1 - DL	MW 1	Total/NA	Water	1633	
380-162135-2	MW 2	Total/NA	Water	1633	
380-162135-2 - DL	MW 2	Total/NA	Water	1633	
MB 320-867095/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-867095/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-867095/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-867095/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 867291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162135-1	MW 1	Total/NA	Water	1633	867095
380-162135-2	MW 2	Total/NA	Water	1633	867095
MB 320-867095/1-A	Method Blank	Total/NA	Water	1633	867095
LCS 320-867095/3-A	Lab Control Sample	Total/NA	Water	1633	867095
LCSD 320-867095/4-A	Lab Control Sample Dup	Total/NA	Water	1633	867095
LLCS 320-867095/2-A	Lab Control Sample	Total/NA	Water	1633	867095

Analysis Batch: 867552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-162135-1 - DL	MW 1	Total/NA	Water	1633	867095
380-162135-2 - DL	MW 2	Total/NA	Water	1633	867095

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162135-1
SDG: MW 1/MW 2

Client Sample ID: MW 1

Lab Sample ID: 380-162135-1

Date Collected: 07/22/25 10:30
Matrix: Water
Date Received: 07/23/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			867095	WVD	EET SAC	07/31/25 12:21
Total/NA	Analysis	1633		1	867291	SEY	EET SAC	08/01/25 15:48
Total/NA	Prep	1633	DL		867095	WVD	EET SAC	07/31/25 12:21
Total/NA	Analysis	1633	DL	10	867552	RS1	EET SAC	08/03/25 11:52

Client Sample ID: MW 2

Lab Sample ID: 380-162135-2

Date Collected: 07/22/25 11:30
Matrix: Water
Date Received: 07/23/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			867095	WVD	EET SAC	07/31/25 12:21
Total/NA	Analysis	1633		1	867291	SEY	EET SAC	08/01/25 16:05
Total/NA	Prep	1633	DL		867095	WVD	EET SAC	07/31/25 12:21
Total/NA	Analysis	1633	DL	10	867552	RS1	EET SAC	08/03/25 12:09

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162135-1
SDG: MW 1/MW 2

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA00044	06-30-26
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468.03	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-26
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-26
Georgia	State	4040	01-29-26
Illinois	NELAP	200060	03-31-26
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-26
Louisiana (All)	NELAP	01944	06-30-26
Maine	State	CA00004	04-14-26
Massachusetts	State	M-CA044	06-30-26
Michigan	State	9947	01-29-26
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	08-31-25
New Jersey	NELAP	CA005	06-30-26
New York	NELAP	11666	04-01-26
Ohio	State	41252	01-29-26
Oregon	NELAP	4040	01-29-26
Texas	NELAP	T104704399-23-17	05-31-26
US Fish & Wildlife	US Federal Programs	A22139	04-30-26
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-26
Virginia	NELAP	460278	03-14-26
Washington	State	C581	05-05-26
West Virginia (DW)	State	9930C	02-01-26
West Virginia DEP	State	422	03-28-26
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162135-1
SDG: MW 1/MW 2

Method	Method Description	Protocol	Laboratory
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET SAC
1633	Solid-Phase Extraction (SPE)	EPA	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-162135-1
SDG: MW 1/MW 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-162135-1	MW 1	Water	07/22/25 10:30	07/23/25 09:30	Hawaii
380-162135-2	MW 2	Water	07/22/25 11:30	07/23/25 09:30	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s)	COC No
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #			
Project Name: Kalaeloa Desalination	Project #			
Site	SSOW#:			

Analysis Requested

380-162135 COC

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M - Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)
Other

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633 PFAs	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:		X	X	N	X	
MW 1	7/22/25	10:30	G	Saltwater			2	2	
MW 2	7/22/25	11:30	G	Saltwater			2	2	

3913 1720 3078

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irntant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by | Date | Time | Method of Shipment FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7/22/25 14:30	INTERA Inc	[signature] 4101	7/23/25 9:30	Eurofins
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No | Custody Seal No | Cooler Temperature(s) °C and Other Remarks. 6/DT-13 2 = 2.2 ice

Ver: 01/16/2019 8/7/2025

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s)	COC No
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #			
Project Name: Kalaeloa Desalination	Project #			
Site	SSOW#:			

Analysis Requested

380-162135 COC

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA
M - Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)
Other

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633 PFAs	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:		X	X	N	X	
MW 1	7/22/25	10:30	G	Saltwater			2	2	
MW 2	7/22/25	11:30	G	Saltwater			2	2	

3913 1720 3078

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irntant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment FEDEX Priority Overnight

	Date/Time	Company		Date/Time	Company
Relinquished by	7/22/25 14:30	INTERA Inc	Received by 4101	7/23/25 9:30	Eurofins
Relinquished by			Received by		
Relinquished by			Received by		

Custody Seals Intact. Δ Yes Δ No | Custody Seal No | Cooler Temperature(s) °C and Other Remarks. 6/DA-13 2 = 2.2 ice

Ver: 01/16/2019 8/7/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234493.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162135-1
Address: 880 Riverside Parkway,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final/1633_SPE_125Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW 1 (380-162135-1)	7/22/25	10:30 Hawaiian	G	Water			X	2	
MW 2 (380-162135-2)	7/22/25	11:30 Hawaiian	G	Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
DO	7/24/25 0925	POM		7/24/25 910	EESAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 24c

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-234493.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-162135-1
Address: 880 Riverside Parkway,	Due Date Requested: 8/19/2025			Preservation Codes: -
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final/1633_SPE_125Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW 1 (380-162135-1)	7/22/25	10:30 Hawaiian	G	Water			X	2	
MW 2 (380-162135-2)	7/22/25	11:30 Hawaiian	G	Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
DO	7/24/25 0925	POM		7/24/25 910	EESAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 24c

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162135-1
SDG Number: MW 1/MW 2

Login Number: 162135
List Number: 1
Creator: Segura, Ryan

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-162135-1
SDG Number: MW 1/MW 2

Login Number: 162135
List Number: 2
Creator: Simmons, Jason C

List Source: Eurofins Sacramento
List Creation: 07/25/25 01:45 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Docusign Envelope ID: 87D939AD-9CF9-4528-91D8-0C9CCA99D334

ICA Labs Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.icalabs.com

Jordan Moniuszko
INTERA
74 Kihapai St
Kailua, HI 96734
USA

Dear Jordan,

Shipment sent for radiocarbon (^{14}C) dating analysis and arrived at ICA Labs on August 13th, 2025. Each of the samples was processed through the 3 main steps required to prepare a sample for AMS analysis: Pretreatment, Combustion or Acid Digestion, and Reduction (Graphitization). Accelerator Mass Spectrometry was used for radiocarbon analysis, and results are provided in this Report.

Radiocarbon results were provided on August 25th, but the report did not include the $\Delta^{13}C$ results. This report includes the $\Delta^{13}C$ results.

The first section of the Report includes the results for any samples submitted and for the Quality Control samples analyzed in parallel with the sample. Quality Control results in this report met acceptance criteria. The later part of the Report includes a Summary of Methods that provides some context on protocols used.

The Team at ICA Labs appreciates you for trusting us with your samples. Please reach out if there are any questions.

Sincerely,

Signed by:
Ricky Diaz
8ACC8E1173CD446...

9/24/2025

Docusign Envelope ID: 87D939AD-9CF9-4528-91D8-0C9CCA99D334

ICA Labs Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.icalabs.com

^{14}C AMS Report

Submitter Name: Jordan Moniuszko
Company Name: INTERA
Address: 74 Kihapai St
Kailua, HI 96734
USA
Date Received: August 13th, 2025
Date Reported: August 25th, 2025 for ^{14}C and September 24th for ^{13}C
Project #: Kalaeloa Desalination

ICA ID	Submitter ID	Material Type	Pretreatment	δ^{13}C (o/oo)	Conventional Age	Calibrated Age
14C-10283	Well 15 120 Hr	Water	DIC	-16.01	**2800 +/- 30 BP**	**Cal 1050 - 1030 BC (1.6%) Cal 1020 - 890 BC (88.2%) Cal 880 - 840 BC (5.7%)**
14C-10284	Well 15 120 Hr Dup	Water	DIC	-18.63	**2630 +/- 30 BP**	**Cal 890 - 880 BC (0.7%) Cal 840 - 770 BC (94.8%)**
14C-10285	MW1	Water	DIC	-14.13	**5360 +/- 40 BP**	**Cal 4330 - 4150 BC (65.5%) Cal 4140 - 4050 BC (29.9%)**
14C-10286	MW2	Water	DIC	-14.23	**5170 +/- 30 BP**	**Cal 4050 - 3940 BC (94.7%) Cal 3840 - 3820 BC (0.8%)**
14C-10287	Well 14 Step	Water	DIC	-18.22	**2520 +/- 30 BP**	**Cal 790 - 720 BC (25.7%) Cal 710 - 540 BC (69.8%)**
14C-10288	Well 14 120 Hr	Water	DIC	-16.26	**2530 +/- 30 BP**	**Cal 800 - 730 BC (30.3%) Cal 700 - 540 BC (65.1%)**
14C-10289	Well 14 EB	Water	DIC	-25.82	**730 +/- 30 BP**	**Cal 1220 - 1310 AD (92.4%) Cal 1360 - 1380 AD (3.1%)**
14C-10290	Well 13 Step	Water	DIC	-17.62	**2820 +/- 30 BP**	**Cal 1110 - 1090 BC (0.5%) Cal 1080 - 890 BC (94.9%)**
14C-10291	Well 13 Step Dup	Water	DIC	-17.36	**2700 +/- 30 BP**	**Cal 910 - 800 BC**

Quality Control Results

QC #	Quality Control Material	Acceptance Criteria	Measured Value
Wheel QC 1	**IAEA C7**	49.53 +/- 0.70 pMC	49.30 +/- 0.20 pMC
Wheel QC 2	**IAEA C5**	23.05 +/- 0.70 pMC	23.27 +/- 0.10 pMC
All Quality Control Analyses Pass Acceptance Criteria			

Summary of Methods

Pretreatment

- **Acid/Alkali/Acid (AAA):** Also known as ABA (Acid/Base/Acid), this pretreatment protocol is applied to most organic material types. A hot hydrochloric acid (HCl) wash is applied to remove any carbonates (if present), and then hot sodium hydroxide (NaOH) washes is performed for removal of secondary humic acids. A final hot HCl wash is applied prior to rinsing the sample solution neutral, then dried to prepare for combustion.
- **Acid Etched (AE):** This pretreatment protocol is applied to most carbonates, such as shells and corals. Material is first rinsed with water and mechanically cleaned to remove any debris if present, then exposed to a dilute HCl wash. The sample solution is then rinsed neutral and dried to prepare for acid digestion.
- **Acid Only (AO):** This pretreatment protocol is typically applied to organic sediments. Sample is mechanically sieved, then a HCl wash is applied to remove any carbonates that may be present. The sample solution is then rinsed neutral and dried to prepare for combustion.
- **Collagen Extraction With Acid/Alkali/Acid (Col-AAA)**: This protocol is applied to bones. The sample surface is cleaned, then the AAA process & extraction the protein component of the bone (collagen) through the removal of the mineral portion of the bone (calcium hydroxyapatite) is performed. The treated collagen extracted is rinsed neutral and dried to prepare for combustion.
- **Carbonate Extraction:** This protocol is typically applied to cremated bones. These bones have been heated to temperatures above 600°C and as a result, the bioapatite forms larger and better structure crystals that are typically not susceptible to contamination over time. After cleaning the external surface of the sample, it is treated with NaClO for 48 hours, then CH_3COOH for 24 hours. The sample is then rinsed neutral and dried to prepare for acid digestion.
- **Dissolved Inorganic Carbon (DIC)**: Strontium Chloride (SrCl) is added to ~250 mL of water under slightly basic conditions. Over time, carbon in the water precipitates as $SrCO_3$. The precipitate is dried and prepared for acid digestion.

Combustion

For each sample, some of it is weighed and placed in quartz tube. The tube containing the sample is subsequently brought to vacuum, then an oxygen source is introduced into the tube. The tube is then sealed and exposed to heat (800°C) for at least 30 minutes to drive the reaction, which causes the carbon in the sample to be converted to CO_2 gas. The other product in the reaction is H_2O. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Acid Digestion

Carbonate samples go through the acid digestion process after pretreatment. This involves crushing some of the pretreated material, then placing it in a tube that is subsequently evacuated. The acid digestion reaction is then started by adding H_3PO_4 to the sample in the vacuum environment. This reaction releases the carbon in the sample as CO_2 gas. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Reduction (Graphitization)

The evolved CO_2 is distilled through a cold (-78°C) solid CO_2/C_3H_8O slush to remove water as it is transferred under a vacuum to a reduction reaction vessel via a cryogenic pump using liquid N_2 (-195°C). The reduction reaction vessel contains Co as the catalyst and $Mg(ClO_4)_2$ as a drying agent. Hydrogen gas is added to the reduction reaction vessel and then heat is introduced (550°C) to drive the reaction. An unbalanced summary of the 2-step reduction reaction is as follows:

$$CO_2 + H_2 \xrightarrow[550^{o}C,\ Co]{\blacktriangle} CO + H_2O$$

$$CO + H_2 \xrightarrow[550^{o}C,\ Co]{\blacktriangle} C_{(graphite)} + H_2O$$

Accelerator Mass Spectrometry (AMS) Analysis

The graphite obtained for each sample is pressed into an aluminum cathode, and then placed into a sample wheel that is loaded into one of the ion sources in the AMS. The sample wheel includes QC samples of known values in addition to unknowns so that accuracy & precision can be verified. Percent Modern Carbon and a Conventional Age is then determined for each sample.

- AMS = Accelerator Mass Spectrometry.
- pMC = Percent Modern Carbon.
- IAEA = International Atomic Energy Agency.
- Calibrated ages are attained using IntCal20 or Bomb 21 NH1.
- Unless otherwise stated, the error reported is two sigma standard deviation (95.4%).
- Conventional ages are given in BP (BP=Before Present, 1950 AD) or F14C when samples are post-1950, and have been corrected for natural isotope fractionation.

FQ Labs

3170 Ualena Street, Unit A
Honolulu, HI 96819
Phone: 808-839-9444, Fax: 808-839-9744

Intera Incorporated
74 Kihapai Street
Kailua, HI, 96734
Attn:
Project Name: Kalaeloa Desalination

CERTIFICATE OF ANALYSIS

Received: 07/22/2025 @ 1:35 PM
Completed: 07/31/2025 @ 1:15 PM
Project Number: 250722-4007-005
Temperature: 3.2 °C
Client Project No: LSBRG.Kalae

Sample ID: 250722-4007-005-01 **Water Sample- Lab # 10 MW-1** **Sampled: 7/22/2025 @ 10:30 AM** **Sampler: Jordan Moniuszko**

Analysis	Results	Units	MDL	Test Method	Analyzed		By
Biochemical Oxygen Demand	<1.0	mg/L	1.0	SM 5210 B	07/23/2025	12:08 PM	EA
Nitrogen, Nitrate	0.16	mg/L	0.008	EPA 353.1, Rev2.0	07/22/2025	2:32 PM	AA
Nitrogen, Nitrite	<0.004	mg/L	0.004	EPA 353.2,Rev2.0	07/22/2025	2:32 PM	AA
Phosphorus, Total	0.065	mg/L	0.003	EPA 365.1, Rev2.0	07/31/2025	12:48 PM	AA
Chromium VI	<0.001	mg/L	0.001	SM 3500-Cr-D	07/22/2025	2:32 PM	AA

Sample ID: 250722-4007-005-02 **Water Sample- Lab # 11 MW-2** **Sampled: 7/22/2025 @ 11:30 AM** **Sampler: Jordan Moniuszko**

Analysis	Results	Units	MDL	Test Method	Analyzed		By
Biochemical Oxygen Demand	<1.0	mg/L	1.0	SM 5210 B	07/23/2025	12:11 PM	EA
Nitrogen, Nitrate	0.09	mg/L	0.008	EPA 353.1, Rev2.0	07/22/2025	2:32 PM	AA
Nitrogen, Nitrite	<0.004	mg/L	0.004	EPA 353.2,Rev2.0	07/22/2025	2:32 PM	AA
Phosphorus, Total	0.063	mg/L	0.003	EPA 365.1, Rev2.0	07/31/2025	12:48 PM	AA
Chromium VI	<0.001	mg/L	0.001	SM 3500-Cr-D	07/22/2025	2:32 PM	AA

Approved By: Greggy Kawamoto
Thursday, July 31, 2025

FQLabs
Analysts of Excellence
3170-A Ualena Street • Honolulu, HI 96819 • Tel: (808) 839-9444 • Fax: (808) 839-9744 • fql@fqlab.com
FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

Intera Incorporated
74 Kihapai Street
Kailua, HI 96734
Attn:
Project Name: Kalaeloa Desalination

Received: 7/22/2025
Completed: 7/31/2025
Project Number: 250722-4007-005

Analysis	QC Test	Results	MDL	Units	Spike Level	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
Glucose-Glutamic Acid Check (GGA) 7/23/2025											
BOD	Blank	<1.0	1.00	mg/L	-	-	-	-	-	-	
BOD	GGA	182	1.00	mg/L	198±30.5	-	-	-	-	-	Pass
The results are within the control limit range of 198 ± 30.5											
Batch Prepared and Analyzed 7/22/2025											
Nitrate	Blank	<0.008	0.008	mg/L	-	-	-	-	-	-	
Nitrate	LCS	0.51	0.008	mg/L	0.50	-	103	90-110%	-	-	
Nitrate	Duplicate	0.17	0.008	mg/L	-	0.16	-	-	6.17	20%	
Nitrate	Matrix Spike	1.06	0.008	mg/L	1.00	0.08	97.8	90-110%	-	-	
Nitrite	Blank	<0.004	0.004	mg/L	-	-	-	-	-	-	
Nitrite	LCS	0.51	0.004	mg/L	0.50	-	102.0	90-110%	-	-	
Nitrite	Duplicate	0.00	0.004	mg/L	-	0.00	-	-	0.00	20%	
Nitrite	Matrix Spike	0.99	0.004	mg/L	1.00	0.00	99	90-110%	-	-	
Chromium VI	Blank	<0.001	0.001	mg/L	-	.	-	-	-	-	
Chromium VI	LCS	1.02	0.001	mg/L	1.00	-	102	85-115%	-	-	
Chromium VI	Duplicate	-0.01	0.001	mg/L	-	-0.01	-	-	11.8	20%	
Chromium VI	Matrix Spike	0.51	0.001	mg/L	0.50	0.00	103	85-115%	-	-	
Batch Prepared and Analyzed 7/31/2025											
Total Phos	Blank	<0.003	0.003	mg/L	-	-	-	-	-	-	
Total Phos	LCS	0.92	0.003	mg/L	1.00	-	92.0	90-110%	-	-	
Total Phos	Duplicate	0.86	0.003	mg/L	-	0.79	-	-	8.40	20%	
Total Phos	Matrix Spike	0.95	0.003	mg/L	0.50	0.43	105	90-110%	-	-	

Notes:

B1	Target Analyte detected in method blank was above the method detection limit.
D8	The duplicate exceeded the acceptance limit due to sample matrix effects.
dry	Sample results reported on a dry weight basis.
LCS	Laboratory Control Standard
M8	The matrix spike was below the acceptance limits. See Blank Spike (LFB)
M9	The matrix spike was above the acceptance limits. See Blank Spike (LFB)
MDL	Method Detection Levels are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
ND	Not Detected
NR	Not Reported
R8	The LCS recovery was below the acceptance limits.
R9	The LCS recovery was above the acceptance limits.
REC	Recovery

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FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

Intera Incorporated
74 Kihapai Street
Kailua, HI 96734
Attn:
Project Name: Kalaeloa Desalination

Received: 7/22/2025
Completed: 7/31/2025
Project Number: 250722-4007-005

Analysis	QC Test	Results	MDL	Units	Spike Level	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
RPD	Relative Percent Difference										

FQLabs

3170-A Ualena Street
Honolulu, HI 96819

Invoice

Date	Invoice #
7/31/2025	33859

Bill To
Intera Incorporated 74 Kihapai St. Kailua, HI 96734 Attn:Jordan Moniuszko

P.O. No.	Terms	Contract #	Lab #
	Due on receipt		10-11

Description	Qty	Rate	Amount
Project Name: Kalaeloa Disalination Project NO: LSBRG.Kalaelo			
Nitrogen, Nitrate EPA 353.2, Rev2.0**	2	140.00	280.00T
Nitrogen, Nitrite (water)**	2	130.00	260.00T
Phosphate, total	2	73.37	146.74T
BOD-5	2	99.00	198.00T
Hexavalent chromium (CrVI) Dissolved, SM 3500-Cr B**	2	205.00	410.00T
**RUSH Fee for Short Holding Time Sample Received on 07/22/25			

Make Check Payable To:FQLabs

Subtotal	$1,294.74
Sales Tax (4.712%)	$61.01
Total	$1,355.75

FQLabs

3170-A Ualena St.
Honolulu, HI 96819
Tel: 808-839-9444 Fax: 808-839-9744 website: www.fqlabs.com

CHAIN OF CUSTODY AND ANALYSIS REQUEST

DATE: _____ PAGE _____ OF _____
CUSTOMER NO. _____ LAB NO. _____

CLIENT NAME: Intera Incorporated EMAIL: jmoniuszko@intera.com

ADDRESS: 74 Kihapai Street Kailua, HI 96734

PROJECT NAME: Kalaeloa Desalination PROJECT NO: LSBRG.Kalae P.O. NO:

PROJECT MANAGER: PHONE NO: 808.284.3204 FAX NO:

SAMPLER NAME: (Printed) Jordan Moniuszko (Signature)

TAT (Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N= Normal

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other:

ANALYSES REQUESTED

AIRBILL NO:

COOLER NO:

SAMPLE TEMP: 3.2 °C

REMARKS:

SAMPLE CONDITION/ COMMENTS:

LAB USE ONLY SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX WATER	MATRIX OTHER	CONTAINER #	CONTAINER TYPE	CONTAINER GRAB/ COMP	5210B- BOD-5	353.2 Nitrogen, Nitrate	353.1 Nitrogen, Nitrite	365.1 Total Phosphorus	7196A Hexavalent Chromium			
10	7/22/25	10:30	MW-1	✓		3	P	G	✓	✓	✓	✓	✓			No preservatives added
11	7/22/25	11:30	MW-2	✓		3	P	G	✓	✓	✓	✓	✓			

Relinquished By: (Signature and Printed Name) Date: ~~7/22/25~~ Time: 1:45
Received By: (Signature and Printed Name) Date: Time:

Relinquished By: (Signature and Printed Name) Natalie Mattner Date: Time:
Received By: (Signature and Printed Name) MANUEL SALVADOR Date: 7/22/25 Time: 13:35

Is this a compliance drinking water sample? Yes No ✓
Sign and Print Date: Time:

SPECIAL INSTRUCTIONS:

SAMPLE DISPOSITION:

1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless additional storage time is requested.
3. Storage time requested: _____ days.

By _____ Date _____

Oxygen, Hydrogen isotopic analysis of waters
Instrumentation: Picarro L2130-i High Precision 18O and D Isotopic Wat

	Average		Standard Deviation	
Sample Name	**$\delta^{18}O$ (‰)**	**$\delta^{2}H$ (‰)**	**$\delta^{18}O$**	**$\delta^{2}H$**
Well 14 EB 1	***-9.0***	***-60.0***	***0.03***	***0.06***
Well 14 EB 2	***-9.0***	***-59.7***	***0.03***	***0.12***
MW 2 1	***-3.7***	***-19.5***	***0.03***	***0.29***
MW 2 2	***-3.7***	***-19.1***	***0.04***	***0.19***
MW 1 1	***-3.2***	***-15.8***	***0.08***	***0.37***
MW 1 2	***-3.1***	***-15.5***	***0.02***	***0.1***
Well 15 Step 1	***0.2***	***1.9***	***0.03***	***0.16***
Well 15 120Hr 1	***0.2***	***1.8***	***0.04***	***0.18***
Well 15 120Hr 2	***0.1***	***1.4***	***0.06***	***0.16***
Well 15 120Hr Dup 1	***0.1***	***1.6***	***0.11***	***0.34***
Well 14 Step 1	***0.4***	***3.7***	***0.08***	***0.23***
Well 14 Step 2	***0.3***	***3.4***	***0.02***	***0.10***

Comments:
Isotopic corrections are calculated using standards prepared by our labo
All samples were analyzed in at least triplicate, and isotopic values are re
The software Chemcorrect was used to flag for organic contamination; a
otherwise noted.

er Analyzer via A0211 High Precision Vaporizer and Picarro A0325 Autosampler

notes

Evian Water as a check standard:

	δ18O	δ2H
Accuracy	**0.05**	**-0.32**
Precision	**0.14**	**0.4**

ratory and run along with your samples.
eported in δ-notation relative to V-SMOW.
ll samples clear of contamination unless

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 9/3/2025 3:43:04 PM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 13 120hr

JOB NUMBER

380-167576-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

Generated
9/3/2025 3:43:04 PM

Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Isotope Dilution Summary 9
QC Sample Results 10
QC Association Summary 18
Lab Chronicle 19
Certification Summary 20
Method Summary 21
Sample Summary 22
Chain of Custody 23
Receipt Checklists 25

Definitions/Glossary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167576-1
SDG: Well 13 120hr

Qualifiers

LCMS

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-167576-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 8/22/2025 10:01 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C.

PFAS
Method 1633_Final: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 320-872558 and analytical batch 320-873190 recovered outside control limits for the following analytes: Nonafluoro-3,6-dioxaheptanoic acid (NFDHA).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167576-1
SDG: Well 13 120hr

Client Sample ID: Well 13 120hr **Lab Sample ID: 380-167576-1**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167576-1
SDG: Well 13 120hr

Client Sample ID: Well 13 120hr

Date Collected: 08/21/25 09:30
Date Received: 08/22/25 10:01

Lab Sample ID: 380-167576-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3		ng/L		08/28/25 03:54	09/01/25 01:51	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3		ng/L		08/28/25 03:54	09/01/25 01:51	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3		ng/L		08/28/25 03:54	09/01/25 01:51	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.2		ng/L		08/28/25 03:54	09/01/25 01:51	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.2		ng/L		08/28/25 03:54	09/01/25 01:51	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3		ng/L		08/28/25 03:54	09/01/25 01:51	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2		ng/L		08/28/25 03:54	09/01/25 01:51	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.2		ng/L		08/28/25 03:54	09/01/25 01:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.2		ng/L		08/28/25 03:54	09/01/25 01:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	*1	1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorobutanoic acid (PFBA)	ND		3.3		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6		ng/L		08/28/25 03:54	09/01/25 01:51	1

Client Sample ID: Well 13 120hr

Lab Sample ID: 380-167576-1

Date Collected: 08/21/25 09:30

Matrix: Water

Date Received: 08/22/25 10:01

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorooctanoic acid (PFOA)	ND		1.6	ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	ng/L		08/28/25 03:54	09/01/25 01:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	ng/L		08/28/25 03:54	09/01/25 01:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*107*		*40 - 200*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C2 6:2 FTS	*88.4*		*40 - 200*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C2 8:2 FTS	*94.5*		*40 - 300*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C2 PFDoA	*65.1*		*10 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C2 PFTeDA	*72.9*		*10 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C3 HFPO-DA	*103*		*40 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C3 PFBS	*92.8*		*40 - 135*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C3 PFHxS	*99.2*		*40 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C4 PFBA	*92.4*		*5 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C4 PFHpA	*111*		*40 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C5 PFHxA	*106*		*40 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C5 PFPeA	*106*		*40 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C6 PFDA	*93.9*		*40 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C7 PFUnA	*77.6*		*30 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C8 FOSA	*101*		*40 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C8 PFOA	*106*		*40 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C8 PFOS	*92.0*		*40 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
13C9 PFNA	*103*		*40 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
d3-NMeFOSAA	*96.7*		*40 - 170*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
d3-NMePFOSA	*79.5*		*10 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
d5-NEtFOSAA	*101*		*25 - 135*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
d5-NEtPFOSA	*77.1*		*10 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
d7-N-MeFOSE-M	*84.5*		*10 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*
d9-N-EtFOSE-M	*87.4*		*10 - 130*	*08/28/25 03:54*	*09/01/25 01:51*	*1*

Isotope Dilution Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167576-1
SDG: Well 13 120hr

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	PFDoA	PFTDA	HFPODA	C3PFBS	C3PFHS
Lab Sample ID	Client Sample ID	(40-200)	(40-200)	(40-300)	(10-130)	(10-130)	(40-130)	(40-135)	(40-130)
380-167576-1	Well 13 120hr	107	88.4	94.5	65.1	72.9	103	92.8	99.2
LCS 320-872558/3-A	Lab Control Sample	141	107	111	73.0	69.1	112	78.3	99.7
LCSD 320-872558/4-A	Lab Control Sample Dup	129	103	107	70.8	63.7	98.7	98.0	96.2
LLCS 320-872558/2-A	Lab Control Sample	129	103	97.0	72.1	60.6	110	104	100
MB 320-872558/1-A	Method Blank	122	106	116	84.2	71.5	104	107	102

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	C4PFHA	13C5PHA	PFPeA	C6PFDA	13C7PUA	PFOSA	C8PFOA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)	(40-130)	(40-130)
380-167576-1	Well 13 120hr	92.4	111	106	106	93.9	77.6	101	106
LCS 320-872558/3-A	Lab Control Sample	88.8	112	91.8	101	99.9	100	72.9	102
LCSD 320-872558/4-A	Lab Control Sample Dup	89.0	96.4	90.5	76.5	94.2	85.5	80.1	95.7
LLCS 320-872558/2-A	Lab Control Sample	85.5	108	97.9	94.5	98.7	88.6	84.0	97.4
MB 320-872558/1-A	Method Blank	91.1	105	103	101	97.1	91.9	82.2	114

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C8PFOS	C9PFNA	d3NMFOS	d3NMFSA	d5NEFOS	d5NPFSA	NMFM	NEFM
Lab Sample ID	Client Sample ID	(40-130)	(40-130)	(40-170)	(10-130)	(25-135)	(10-130)	(10-130)	(10-130)
380-167576-1	Well 13 120hr	92.0	103	96.7	79.5	101	77.1	84.5	87.4
LCS 320-872558/3-A	Lab Control Sample	89.4	99.6	89.6	59.0	82.7	62.6	67.8	70.0
LCSD 320-872558/4-A	Lab Control Sample Dup	94.7	101	91.4	66.7	86.4	71.8	74.9	79.2
LLCS 320-872558/2-A	Lab Control Sample	104	103	101	66.1	89.1	70.4	74.2	80.6
MB 320-872558/1-A	Method Blank	103	104	104	62.8	83.4	65.6	79.5	83.4

Surrogate Legend

M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
HFPODA = 13C3 HFPO-DA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
13C5PHA = 13C5 PFHxA
PFPeA = 13C5 PFPeA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
C9PFNA = 13C9 PFNA
d3NMFOS = d3-NMeFOSAA
d3NMFSA = d3-NMePFOSA
d5NEFOS = d5-NEtFOSAA
d5NPFSA = d5-NEtPFOSA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 320-872558/1-A
Matrix: Water
Analysis Batch: 873190

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 872558

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10		ng/L		08/28/25 03:54	09/01/25 00:45	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10		ng/L		08/28/25 03:54	09/01/25 00:45	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5		ng/L		08/28/25 03:54	09/01/25 00:45	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10		ng/L		08/28/25 03:54	09/01/25 00:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10		ng/L		08/28/25 03:54	09/01/25 00:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		08/28/25 03:54	09/01/25 00:45	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 320-872558/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 873190 — **Prep Batch: 872558**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorooctanoic acid (PFOA)	ND		2.0	ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	ng/L		08/28/25 03:54	09/01/25 00:45	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	ng/L		08/28/25 03:54	09/01/25 00:45	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*122*		*40 - 200*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C2 6:2 FTS	*106*		*40 - 200*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C2 8:2 FTS	*116*		*40 - 300*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C2 PFDoA	*84.2*		*10 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C2 PFTeDA	*71.5*		*10 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C3 HFPO-DA	*104*		*40 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C3 PFBS	*107*		*40 - 135*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C3 PFHxS	*102*		*40 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C4 PFBA	*91.1*		*5 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C4 PFHpA	*105*		*40 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C5 PFHxA	*103*		*40 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C5 PFPeA	*101*		*40 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C6 PFDA	*97.1*		*40 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C7 PFUnA	*91.9*		*30 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C8 FOSA	*82.2*		*40 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C8 PFOA	*114*		*40 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C8 PFOS	*103*		*40 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
13C9 PFNA	*104*		*40 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
d3-NMeFOSAA	*104*		*40 - 170*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
d3-NMePFOSA	*62.8*		*10 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
d5-NEtFOSAA	*83.4*		*25 - 135*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
d5-NEtPFOSA	*65.6*		*10 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
d7-N-MeFOSE-M	*79.5*		*10 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*
d9-N-EtFOSE-M	*83.4*		*10 - 130*	*08/28/25 03:54*	*09/01/25 00:45*	*1*

Lab Sample ID: LCS 320-872558/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 873190 — **Prep Batch: 872558**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	25.6		ng/L		68	55 - 160
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	83.4		ng/L		109	60 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	68.3		ng/L		91	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	82.4		ng/L		108	65 - 155

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-872558/3-A
Matrix: Water
Analysis Batch: 873190

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 872558

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	206		ng/L		103	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	222		ng/L		111	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	81.0		ng/L		101	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	36.2		ng/L		96	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	34.6		ng/L		93	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.7		ng/L		92	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	38.8		ng/L		97	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	189		ng/L		95	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	37.7		ng/L		94	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	40.7		ng/L		102	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	202		ng/L		101	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.8		ng/L		97	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	36.3		ng/L		91	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	39.7		ng/L		111	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	40.5		ng/L		101	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	45.3		ng/L		113	60 - 150
Perfluorobutanesulfonic acid (PFBS)	35.5	41.9		ng/L		118	60 - 145
Perfluorobutanoic acid (PFBA)	80.0	88.8		ng/L		111	70 - 140
Perfluorodecanesulfonic acid (PFDS)	38.6	34.5		ng/L		90	60 - 145
Perfluorodecanoic acid (PFDA)	40.0	42.4		ng/L		106	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	38.8	29.2		ng/L		75	50 - 145
Perfluorododecanoic acid (PFDoA)	40.0	43.3		ng/L		108	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	38.2	36.8		ng/L		96	70 - 150
Perfluoroheptanoic acid (PFHpA)	40.0	36.2		ng/L		91	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	36.5	36.2		ng/L		99	65 - 145
Perfluorohexanoic acid (PFHxA)	40.0	39.0		ng/L		97	70 - 145
Perfluorononanesulfonic acid (PFNS)	38.5	37.1		ng/L		96	65 - 145
Perfluorononanoic acid (PFNA)	40.0	41.2		ng/L		103	70 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	40.8		ng/L		102	70 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-872558/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 873190 — **Prep Batch: 872558**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	37.2	35.4		ng/L		95	55 - 150
Perfluorooctanoic acid (PFOA)	40.0	37.2		ng/L		93	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	37.6	33.5		ng/L		89	65 - 140
Perfluoropentanoic acid (PFPeA)	40.0	40.6		ng/L		101	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	40.0	43.0		ng/L		108	60 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	42.1		ng/L		105	65 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	38.9		ng/L		97	70 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 4:2 FTS	*141*		*40 - 200*
13C2 6:2 FTS	*107*		*40 - 200*
13C2 8:2 FTS	*111*		*40 - 300*
13C2 PFDoA	*73.0*		*10 - 130*
13C2 PFTeDA	*69.1*		*10 - 130*
13C3 HFPO-DA	*112*		*40 - 130*
13C3 PFBS	*78.3*		*40 - 135*
13C3 PFHxS	*99.7*		*40 - 130*
13C4 PFBA	*88.8*		*5 - 130*
13C4 PFHpA	*112*		*40 - 130*
13C5 PFHxA	*91.8*		*40 - 130*
13C5 PFPeA	*101*		*40 - 130*
13C6 PFDA	*99.9*		*40 - 130*
13C7 PFUnA	*100*		*30 - 130*
13C8 FOSA	*72.9*		*40 - 130*
13C8 PFOA	*102*		*40 - 130*
13C8 PFOS	*89.4*		*40 - 130*
13C9 PFNA	*99.6*		*40 - 130*
d3-NMeFOSAA	*89.6*		*40 - 170*
d3-NMePFOSA	*59.0*		*10 - 130*
d5-NEtFOSAA	*82.7*		*25 - 135*
d5-NEtPFOSA	*62.6*		*10 - 130*
d7-N-MeFOSE-M	*67.8*		*10 - 130*
d9-N-EtFOSE-M	*70.0*		*10 - 130*

Lab Sample ID: LCSD 320-872558/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 873190 — **Prep Batch: 872558**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	25.9		ng/L		69	55 - 160	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	83.5		ng/L		109	60 - 150	0	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	75.4		ng/L		101	70 - 145	10	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-872558/4-A
Matrix: Water
Analysis Batch: 873190

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 872558

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	80.5		ng/L		106	65 - 155	2	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	192		ng/L		96	50 - 145	7	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	188		ng/L		94	70 - 135	16	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	88.5		ng/L		111	65 - 130	9	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	34.4		ng/L		91	65 - 145	5	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	31.1		ng/L		83	70 - 155	11	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	28.5		ng/L		95	70 - 140	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	39.1		ng/L		98	65 - 145	1	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	191		ng/L		96	70 - 135	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.3		ng/L		103	70 - 145	9	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	40.1		ng/L		100	60 - 150	2	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	206		ng/L		103	70 - 145	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.9		ng/L		97	50 - 140	0	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	49.7	*1	ng/L		124	50 - 150	31	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	33.4		ng/L		93	70 - 140	17	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	46.1		ng/L		115	55 - 140	13	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	48.6		ng/L		121	60 - 150	7	30
Perfluorobutanesulfonic acid (PFBS)	35.5	37.8		ng/L		106	60 - 145	10	30
Perfluorobutanoic acid (PFBA)	80.0	89.7		ng/L		112	70 - 140	1	30
Perfluorodecanesulfonic acid (PFDS)	38.6	34.6		ng/L		90	60 - 145	0	30
Perfluorodecanoic acid (PFDA)	40.0	41.7		ng/L		104	70 - 140	2	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	29.7		ng/L		77	50 - 145	2	30
Perfluorododecanoic acid (PFDoA)	40.0	42.1		ng/L		105	70 - 140	3	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	38.6		ng/L		101	70 - 150	5	30
Perfluoroheptanoic acid (PFHpA)	40.0	37.1		ng/L		93	70 - 150	2	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	37.5		ng/L		103	65 - 145	3	30
Perfluorohexanoic acid (PFHxA)	40.0	39.3		ng/L		98	70 - 145	1	30
Perfluorononanesulfonic acid (PFNS)	38.5	39.6		ng/L		103	65 - 145	7	30
Perfluorononanoic acid (PFNA)	40.0	40.8		ng/L		102	70 - 150	1	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-872558/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 873190 — **Prep Batch: 872558**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonamide (PFOSA)	40.0	41.9		ng/L		105	70 - 145	3	30
Perfluorooctanesulfonic acid (PFOS)	37.2	36.3		ng/L		97	55 - 150	3	30
Perfluorooctanoic acid (PFOA)	40.0	42.1		ng/L		105	70 - 150	12	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	33.5		ng/L		89	65 - 140	0	30
Perfluoropentanoic acid (PFPeA)	40.0	42.9		ng/L		107	65 - 135	6	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	40.3		ng/L		101	60 - 140	7	30
Perfluorotridecanoic acid (PFTrDA)	40.0	41.2		ng/L		103	65 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.9		ng/L		95	70 - 145	2	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2 4:2 FTS	*129*		*40 - 200*
13C2 6:2 FTS	*103*		*40 - 200*
13C2 8:2 FTS	*107*		*40 - 300*
13C2 PFDoA	*70.8*		*10 - 130*
13C2 PFTeDA	*63.7*		*10 - 130*
13C3 HFPO-DA	*98.7*		*40 - 130*
13C3 PFBS	*98.0*		*40 - 135*
13C3 PFHxS	*96.2*		*40 - 130*
13C4 PFBA	*89.0*		*5 - 130*
13C4 PFHpA	*96.4*		*40 - 130*
13C5 PFHxA	*90.5*		*40 - 130*
13C5 PFPeA	*76.5*		*40 - 130*
13C6 PFDA	*94.2*		*40 - 130*
13C7 PFUnA	*85.5*		*30 - 130*
13C8 FOSA	*80.1*		*40 - 130*
13C8 PFOA	*95.7*		*40 - 130*
13C8 PFOS	*94.7*		*40 - 130*
13C9 PFNA	*101*		*40 - 130*
d3-NMeFOSAA	*91.4*		*40 - 170*
d3-NMePFOSA	*66.7*		*10 - 130*
d5-NEtFOSAA	*86.4*		*25 - 135*
d5-NEtPFOSA	*71.8*		*10 - 130*
d7-N-MeFOSE-M	*74.9*		*10 - 130*
d9-N-EtFOSE-M	*79.2*		*10 - 130*

Lab Sample ID: LLCS 320-872558/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 873190 — **Prep Batch: 872558**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.49		ng/L		66	55 - 160
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	8.59		ng/L		112	60 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-872558/2-A
Matrix: Water
Analysis Batch: 873190

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 872558

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.46		ng/L		99	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	8.48		ng/L		111	65 - 155
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	17.1		ng/L		86	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	20.9		ng/L		105	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	8.18		ng/L		102	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.76		ng/L		99	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	3.15		ng/L		84	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.48		ng/L		83	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.43		ng/L		86	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	17.8		ng/L		89	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.43		ng/L		86	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.40		ng/L		85	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	18.5		ng/L		93	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.55		ng/L		89	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.72		ng/L		93	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.29		ng/L		92	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.00		ng/L		100	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.32		ng/L		108	60 - 150
Perfluorobutanesulfonic acid (PFBS)	3.55	3.73		ng/L		105	60 - 145
Perfluorobutanoic acid (PFBA)	8.00	8.60		ng/L		107	70 - 140
Perfluorodecanesulfonic acid (PFDS)	3.86	2.93		ng/L		76	60 - 145
Perfluorodecanoic acid (PFDA)	4.00	3.49		ng/L		87	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.53		ng/L		65	50 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.38		ng/L		109	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.33		ng/L		87	70 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	3.53		ng/L		88	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.91		ng/L		107	65 - 145
Perfluorohexanoic acid (PFHxA)	4.00	4.13		ng/L		103	70 - 145
Perfluorononanesulfonic acid (PFNS)	3.85	3.17		ng/L		82	65 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-872558/2-A
Matrix: Water
Analysis Batch: 873190

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 872558

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanoic acid (PFNA)	4.00	3.79		ng/L		95	70 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.67		ng/L		92	70 - 145
Perfluorooctanesulfonic acid (PFOS)	3.72	3.30		ng/L		89	55 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.82		ng/L		95	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.22		ng/L		86	65 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.06		ng/L		101	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.23		ng/L		106	60 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.63		ng/L		91	65 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.47		ng/L		87	70 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 4:2 FTS	*129*		*40 - 200*
13C2 6:2 FTS	*103*		*40 - 200*
13C2 8:2 FTS	*97.0*		*40 - 300*
13C2 PFDoA	*72.1*		*10 - 130*
13C2 PFTeDA	*60.6*		*10 - 130*
13C3 HFPO-DA	*110*		*40 - 130*
13C3 PFBS	*104*		*40 - 135*
13C3 PFHxS	*100*		*40 - 130*
13C4 PFBA	*85.5*		*5 - 130*
13C4 PFHpA	*108*		*40 - 130*
13C5 PFHxA	*97.9*		*40 - 130*
13C5 PFPeA	*94.5*		*40 - 130*
13C6 PFDA	*98.7*		*40 - 130*
13C7 PFUnA	*88.6*		*30 - 130*
13C8 FOSA	*84.0*		*40 - 130*
13C8 PFOA	*97.4*		*40 - 130*
13C8 PFOS	*104*		*40 - 130*
13C9 PFNA	*103*		*40 - 130*
d3-NMeFOSAA	*101*		*40 - 170*
d3-NMePFOSA	*66.1*		*10 - 130*
d5-NEtFOSAA	*89.1*		*25 - 135*
d5-NEtPFOSA	*70.4*		*10 - 130*
d7-N-MeFOSE-M	*74.2*		*10 - 130*
d9-N-EtFOSE-M	*80.6*		*10 - 130*

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167576-1
SDG: Well 13 120hr

LCMS

Prep Batch: 872558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167576-1	Well 13 120hr	Total/NA	Water	1633	
MB 320-872558/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-872558/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-872558/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-872558/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 873190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167576-1	Well 13 120hr	Total/NA	Water	1633	872558
MB 320-872558/1-A	Method Blank	Total/NA	Water	1633	872558
LCS 320-872558/3-A	Lab Control Sample	Total/NA	Water	1633	872558
LCSD 320-872558/4-A	Lab Control Sample Dup	Total/NA	Water	1633	872558
LLCS 320-872558/2-A	Lab Control Sample	Total/NA	Water	1633	872558

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167576-1
SDG: Well 13 120hr

Client Sample ID: Well 13 120hr

Date Collected: 08/21/25 09:30
Date Received: 08/22/25 10:01

Lab Sample ID: 380-167576-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			872558	BMS	EET SAC	08/28/25 03:54
Total/NA	Analysis	1633		1	873190	K1D	EET SAC	09/01/25 01:51

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167576-1
SDG: Well 13 120hr

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA00044	06-30-26
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468.03	01-20-27
Arizona	State	AZ0708	08-11-26
Arkansas DEQ	State	88-0691	05-18-26
California	State	2897	01-31-26
Florida	NELAP	E87570	06-30-26
Georgia	State	4040	01-29-26
Illinois	NELAP	200060	03-31-26
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-26
Louisiana (All)	NELAP	01944	06-30-26
Maine	State	CA00004	04-14-26
Massachusetts	State	M-CA044	06-30-26
Michigan	State	9947	01-29-26
Minnesota	NELAP	2749448	12-31-25
New Jersey	NELAP	CA005	06-30-26
New York	NELAP	11666	04-01-26
Ohio	State	41252	01-29-26
Oregon	NELAP	4040	01-29-26
Texas	NELAP	T104704399-23-17	05-31-26
US Fish & Wildlife	US Federal Programs	A22139	04-30-26
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-26
Virginia	NELAP	460278	03-14-26
Washington	State	C581	05-05-26
West Virginia (DW)	State	9930C	02-01-26
West Virginia DEP	State	422	03-28-26
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167576-1
SDG: Well 13 120hr

Method	Method Description	Protocol	Laboratory
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET SAC
1633	Solid-Phase Extraction (SPE)	EPA	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167576-1
SDG: Well 13 120hr

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-167576-1	Well 13 120hr	Water	08/21/25 09:30	08/22/25 10:01	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284.3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:	Analysis Requested		Job #:
Address: 74 Kihapai St	Due Date Requested			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA; M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify); Other:
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633 PFAs										Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:		N		N											
Well 13 120 hr	8/21/25	0930	G	Saltwater	N		2											

380-167576 COC

1 of 3
3923 8928 5360

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	8/21/25, 0930	INTERA Inc	[signature]	8/22/25 1001	[illegible]

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 6/8 2/2.6 = 2.6

Ver: 01/16/2019

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-244862.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-167576-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 9/22/2025			
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes: -

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final/1633_SPE_125Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Well 13 120hr (380-167576-1)	8/21/25	09:30 Hawaiian	G	Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:	Method of Shipment:	
Relinquished by: Guillermo	Date/Time: 8/25 9:28	Company	Received by:	Date/Time: 8/26/25	Company EEAL	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.6°			

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-167576-1
SDG Number: Well 13 120hr

Login Number: 167576
List Number: 1
Creator: Segura, Ryan

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-167576-1
SDG Number: Well 13 120hr

Login Number: 167576
List Number: 2
Creator: Oropeza, Salvador

List Source: Eurofins Sacramento
List Creation: 08/26/25 01:01 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 10/6/2025 10:08:14 PM Revision 1

JOB DESCRIPTION

Kalealoa Desalination Project
Well 13 120hr

JOB NUMBER

380-167582-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Revision 1

Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 10
Client Sample Results 11
Surrogate Summary 19
Tracer Carrier Summary 22
QC Sample Results 23
QC Association Summary 57
Lab Chronicle 63
Certification Summary 65
Method Summary 68
Sample Summary 70
Chain of Custody 71
Field Data Sheets 77
Receipt Checklists 79

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-167582-1

REVISION

The report being provided is a revision of the original report sent on 9/25/2025. The report (revision 1) is being revised due to missing 608 pesticides on final report.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 8/22/2025 10:01 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.3°C and 1.4°C.

Receipt Exceptions
Client marked COC for SM4500_Si02 however no bottle was received
Well 13 120hr (380-167582-1)

One or more containers for the following sample(s) was received empty:

Vials for TOC received empty.

GC/MS VOA
Method 624.1: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 570-615835 recovered outside control limits for the following analyte: Acrolein. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 624.1: The continuing calibration verification (CCV) associated with batch 570-615835 recovered above the upper control limit for Acrolein. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are:Well 13 120hr (380-167582-1) and (CCVIS 570-615835/3).

Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-615835. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: The initial calibration verification (ICV) result for batch 570-615835 was above the upper control limit. The affected analyte: Acrolein. Sample results were non-detects, and have been reported as qualified data.

Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 570-616175. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-616825. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 625

Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-616825 and analytical batch 570-618111 recovered outside control limits for the following analytes: Benzoic acid.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015B_DRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-618349. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method: 8015B_DRO

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015C_DAI_GLY: The following sample was diluted due to the nature of the sample matrix: Well 13 120hr (380-167582-1). Elevated reporting limits (RLs) are provided.

Method 8011: Surrogate recovery for the following sample was outside control limits: Well 13 120hr (380-167582-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
Method 608.3_PCB: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-633971.

Method 608.3

Method 608.3_PCB: The following sample was prepared outside of preparation holding time due to request after holding time : Well 13 120hr (380-167582-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
Method 608.3_Pest: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-633971.

Method 608.3

Method 608.3_Pest: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-633971 and analytical batch 570-635598 recovered outside control limits for the following analytes: Endrin aldehyde.

Method 608.3_Pest: The following sample was prepared outside of preparation holding time due to extraction requested after end of HT : Well 13 120hr (380-167582-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: Well 13 120hr (380-167582-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-9751 and analytical batch 350-9776 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-9751 and analytical batch 350-9776 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The continuing calibration blank (CCB) for analytical batch 350-9776 contained Iron and Manganese above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 1640: The continuing calibration blank (CCB) for analytical batch 350-9776 contained Manganese above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6010D - Total Recoverable: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 570-617127 and analytical batch 570-617817 recovered outside control limits for the following analytes: Iron. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 6010D - Total Recoverable: The laboratory control sample duplicate (LCSD) for preparation batch 570-617127 and analytical batch 570-617817 recovered outside control limits for the following analytes: Iron. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 6010D - Total Recoverable: The following sample was diluted due to the nature of the sample matrix: Well 13 120hr (380-167582-1). Elevated reporting limits (RLs) are provided.

Method 6010D - Total Recoverable: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-617127 and analytical batch 570-617817 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 6010D - Total Recoverable: The post digestion spike % recovery for Lithium associated with batch 570-617817 was outside of control limits. The associated sample is: (380-167582-AA-1-A PDS).

Method 6020 - Total Recoverable: The following sample was diluted due to the nature of the sample matrix: Well 13 120hr (380-167582-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-616196. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
EPA 1664 A/B

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 900.0: Gross Alpha/Beta Prep Batch 160-734189:
The detection goal was not met for the following sample due to a reduction of the sample size attributed to high residual mass: Well 13 120hr (380-167582-1). Analytical results are reported with the detection limit achieved.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Client Sample ID: Well 13 120hr — Lab Sample ID: 380-167582-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bromide	62		4.0		mg/L	40		300.0	Total/NA
Sulfate	2700		40		mg/L	40		300.0	Total/NA
Chloride - DL	20000		500		mg/L	500		300.0	Total/NA
Mercury	0.97		0.50		ng/L	1		1631E	Total/NA
Barium	31		5.0		ug/L	10		1640	Total/NA
Cadmium	0.035		0.020		ug/L	1		1640	Total/NA
Chromium	1.1		1.0		ug/L	1		1640	Total/NA
Iron	5.0		5.0		ug/L	1		1640	Total/NA
Manganese	0.80	^2	0.050		ug/L	1		1640	Total/NA
Vanadium	2.3		1.0		ug/L	1		1640	Total/NA
Zinc	9.3		1.0		ug/L	1		1640	Total/NA
Calcium	400		10		mg/L	5		6010D	Total Recoverable
Magnesium	1300		2.5		mg/L	5		6010D	Total Recoverable
Potassium	400		10		mg/L	5		6010D	Total Recoverable
Sodium	10000		50		mg/L	25		6010D	Total Recoverable
Strontium	7.8		0.050		mg/L	5		6010D	Total Recoverable
SiO2	28		2.7		mg/L	5		6010D	Total Recoverable
Chemical Oxygen Demand	47		10		mg/L	1		410.4	Total/NA
Alkalinity, Total (As CaCO3)	97		5.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate (as CaCO3)	97		5.0		mg/L	1		SM 2320B	Total/NA
Salinity	35		2.0		psu	1		SM 2520B	Total/NA
Total Dissolved Solids	36000		500		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Client Sample ID: Well 13 120hr

Date Collected: 08/21/25 09:30
Date Received: 08/22/25 10:01

Lab Sample ID: 380-167582-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/23/25 11:57	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/23/25 11:57	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/23/25 11:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			08/23/25 11:57	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/23/25 11:57	1
1,1-Dichloroethane	ND		1.0		ug/L			08/23/25 11:57	1
1,1-Dichloroethene	ND		1.0		ug/L			08/23/25 11:57	1
1,1-Dichloropropene	ND		1.0		ug/L			08/23/25 11:57	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/23/25 11:57	1
1,2,3-Trichloropropane	ND		5.0		ug/L			08/23/25 11:57	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/23/25 11:57	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/23/25 11:57	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/23/25 11:57	1
1,2-Dibromoethane	ND		1.0		ug/L			08/23/25 11:57	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/23/25 11:57	1
1,2-Dichloroethane	ND		0.50		ug/L			08/23/25 11:57	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			08/23/25 11:57	1
1,2-Dichloropropane	ND		1.0		ug/L			08/23/25 11:57	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/23/25 11:57	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/23/25 11:57	1
1,3-Dichloropropane	ND		1.0		ug/L			08/23/25 11:57	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			08/23/25 11:57	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/23/25 11:57	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/23/25 11:57	1
2,2-Dichloropropane	ND		1.0		ug/L			08/23/25 11:57	1
2-Butanone	ND		10		ug/L			08/23/25 11:57	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			08/23/25 11:57	1
2-Chlorotoluene	ND		1.0		ug/L			08/23/25 11:57	1
2-Hexanone	ND		10		ug/L			08/23/25 11:57	1
4-Chlorotoluene	ND		1.0		ug/L			08/23/25 11:57	1
4-Methyl-2-pentanone	ND		10		ug/L			08/23/25 11:57	1
Acetone	ND		12		ug/L			08/23/25 11:57	1
Acrolein	ND	*+	5.0		ug/L			08/23/25 11:57	1
Acrylonitrile	ND		2.0		ug/L			08/23/25 11:57	1
Benzene	ND		0.50		ug/L			08/23/25 11:57	1
Bromobenzene	ND		1.0		ug/L			08/23/25 11:57	1
Bromochloromethane	ND		1.0		ug/L			08/23/25 11:57	1
Bromodichloromethane	ND		1.0		ug/L			08/23/25 11:57	1
Bromoform	ND		1.0		ug/L			08/23/25 11:57	1
Bromomethane	ND		5.0		ug/L			08/23/25 11:57	1
Carbon disulfide	ND		10		ug/L			08/23/25 11:57	1
Carbon tetrachloride	ND		0.50		ug/L			08/23/25 11:57	1
Chlorobenzene	ND		1.0		ug/L			08/23/25 11:57	1
Chloroethane	ND		1.0		ug/L			08/23/25 11:57	1
Chloroform	ND		1.0		ug/L			08/23/25 11:57	1
Chloromethane	ND		1.0		ug/L			08/23/25 11:57	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/23/25 11:57	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/23/25 11:57	1
Dibromochloromethane	ND		1.0		ug/L			08/23/25 11:57	1

Client Sample ID: Well 13 120hr

Date Collected: 08/21/25 09:30
Date Received: 08/22/25 10:01

Lab Sample ID: 380-167582-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.0	ug/L			08/23/25 11:57	1
Dichlorodifluoromethane	ND		1.0	ug/L			08/23/25 11:57	1
Di-isopropyl ether (DIPE)	ND		2.0	ug/L			08/23/25 11:57	1
Ethylbenzene	ND		1.0	ug/L			08/23/25 11:57	1
Ethyl-t-butyl ether (ETBE)	ND		2.0	ug/L			08/23/25 11:57	1
Hexachloro-1,3-butadiene	ND		1.0	ug/L			08/23/25 11:57	1
Isopropanol	ND		50	ug/L			08/23/25 11:57	1
Isopropylbenzene	ND		1.0	ug/L			08/23/25 11:57	1
m,p-Xylene	ND		1.0	ug/L			08/23/25 11:57	1
Methylene Chloride	ND		2.0	ug/L			08/23/25 11:57	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			08/23/25 11:57	1
Naphthalene	ND		10	ug/L			08/23/25 11:57	1
n-Butylbenzene	ND		1.0	ug/L			08/23/25 11:57	1
N-Propylbenzene	ND		1.0	ug/L			08/23/25 11:57	1
o-Xylene	ND		1.0	ug/L			08/23/25 11:57	1
p-Isopropyltoluene	ND		1.0	ug/L			08/23/25 11:57	1
sec-Butylbenzene	ND		1.0	ug/L			08/23/25 11:57	1
Styrene	ND		1.0	ug/L			08/23/25 11:57	1
Tert-amyl-methyl ether (TAME)	ND		2.0	ug/L			08/23/25 11:57	1
tert-Butylbenzene	ND		1.0	ug/L			08/23/25 11:57	1
Tetrachloroethene	ND		1.0	ug/L			08/23/25 11:57	1
Tetrahydrofuran	ND		10	ug/L			08/23/25 11:57	1
Toluene	ND		1.0	ug/L			08/23/25 11:57	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			08/23/25 11:57	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			08/23/25 11:57	1
Trichloroethene	ND		1.0	ug/L			08/23/25 11:57	1
Trichlorofluoromethane	ND		5.0	ug/L			08/23/25 11:57	1
Trihalomethanes, Total	ND		1.0	ug/L			08/23/25 11:57	1
Vinyl acetate	ND		10	ug/L			08/23/25 11:57	1
Vinyl chloride	ND		0.50	ug/L			08/23/25 11:57	1
Xylenes, Total	ND		1.0	ug/L			08/23/25 11:57	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*08/23/25 11:57*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*08/23/25 11:57*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*08/23/25 11:57*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*60 - 140*		*08/23/25 11:57*	*1*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/23/25 11:57*	*1*
Dibromofluoromethane	*106*		*60 - 140*		*08/23/25 11:57*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/23/25 11:57*	*1*

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		100	ug/L			08/25/25 14:30	1
tert-Butyl alcohol (TBA)	ND		10	ug/L			08/25/25 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*60 - 140*		*08/25/25 14:30*	*1*

Client Sample ID: Well 13 120hr

Lab Sample ID: 380-167582-1

Date Collected: 08/21/25 09:30
Date Received: 08/22/25 10:01

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) - RA (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/25/25 14:30*	*1*
Dibromofluoromethane	*109*		*60 - 140*		*08/25/25 14:30*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*08/25/25 14:30*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.31	ug/L		08/28/25 15:42	08/29/25 08:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*60*		*30 - 187*	*08/28/25 15:42*	*08/29/25 08:17*	*1*
Benzo(a)pyrene-d12 (Surr)	*57*		*32 - 194*	*08/28/25 15:42*	*08/29/25 08:17*	*1*
1-Methylnaphthalene-d10	*54*		*45 - 130*	*08/28/25 15:42*	*08/29/25 08:17*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
1,2-Dichlorobenzene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
1,3-Dichlorobenzene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
1,4-Dichlorobenzene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
1-Methylnaphthalene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2,4,5-Trichlorophenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2,4,6-Trichlorophenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2,4-Dichlorophenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2,4-Dimethylphenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2,4-Dinitrophenol	ND		51	ug/L		08/26/25 08:23	08/28/25 11:40	1
2,4-Dinitrotoluene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2,6-Dichlorophenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2,6-Dinitrotoluene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2-Chloronaphthalene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2-Chlorophenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2-Methylnaphthalene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2-Methylphenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2-Nitroaniline	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
2-Nitrophenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
3,3'-Dichlorobenzidine	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
3/4-Methylphenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
3-Nitroaniline	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
4,6-Dinitro-2-methylphenol	ND		51	ug/L		08/26/25 08:23	08/28/25 11:40	1
4-Bromophenyl phenyl ether	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
4-Chloro-3-methylphenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
4-Chloroaniline	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
4-Chlorophenyl phenyl ether	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
4-Nitroaniline	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
4-Nitrophenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Acenaphthene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Acenaphthylene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Acetophenone	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Alpha-Terpineol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1

Client Sample ID: Well 13 120hr

Lab Sample ID: 380-167582-1

Date Collected: 08/21/25 09:30
Matrix: Water
Date Received: 08/22/25 10:01

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Anthracene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Azobenzene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Benzidine	ND		51	ug/L		08/26/25 08:23	08/28/25 11:40	1
Benzo[a]anthracene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Benzo[a]pyrene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Benzo[b]fluoranthene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Benzo[g,h,i]perylene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Benzo[k]fluoranthene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Benzoic acid	ND	*1	51	ug/L		08/26/25 08:23	08/28/25 11:40	1
Benzyl alcohol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Bis (2-chloroethoxy) methane	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
bis (2-chloroisopropyl) ether	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Bis(2-chloroethyl)ether	ND		25	ug/L		08/26/25 08:23	08/28/25 11:40	1
Bis(2-ethylhexyl) phthalate	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Butyl benzyl phthalate	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Carbazole	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Chrysene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Dibenz(a,h)anthracene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Dibenzofuran	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Diethyl phthalate	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Dimethyl phthalate	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Di-n-butyl phthalate	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Di-n-octyl phthalate	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Fluoranthene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Fluorene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Hexachloro-1,3-butadiene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Hexachlorobenzene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Hexachlorocyclopentadiene	ND		25	ug/L		08/26/25 08:23	08/28/25 11:40	1
Hexachloroethane	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Indeno[1,2,3-cd]pyrene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Isophorone	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Naphthalene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
n-Decane	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Nitrobenzene	ND		25	ug/L		08/26/25 08:23	08/28/25 11:40	1
N-Nitrosodimethylamine	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
N-Nitrosodiphenylamine	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
n-Octadecane	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Pentachlorophenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Phenanthrene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Phenol	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Pyrene	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1
Pyridine	ND		10	ug/L		08/26/25 08:23	08/28/25 11:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*08/26/25 08:23*	*08/28/25 11:40*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*08/26/25 08:23*	*08/28/25 11:40*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*08/26/25 08:23*	*08/28/25 11:40*	*1*
2,3,7,8-TCDD TIC	*ND*		*ug/L*			*1746-01-6*	*08/26/25 08:23*	*08/28/25 11:40*	*1*

Client Sample ID: Well 13 120hr

Lab Sample ID: 380-167582-1

Date Collected: 08/21/25 09:30
Matrix: Water
Date Received: 08/22/25 10:01

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
3,4,5-Trichlorophenol TIC	ND		ug/L			609-19-8	08/26/25 08:23	08/28/25 11:40	1
Phenylacetic Acid TIC	ND		ug/L			103-82-2	08/26/25 08:23	08/28/25 11:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	80		33 - 139	08/26/25 08:23	08/28/25 11:40	1
2-Fluorobiphenyl (Surr)	90		33 - 126	08/26/25 08:23	08/28/25 11:40	1
2-Fluorophenol (Surr)	68		12 - 120	08/26/25 08:23	08/28/25 11:40	1
Nitrobenzene-d5 (Surr)	95		36 - 120	08/26/25 08:23	08/28/25 11:40	1
Phenol-d6 (Surr)	52		10 - 120	08/26/25 08:23	08/28/25 11:40	1
p-Terphenyl-d14 (Surr)	92		47 - 131	08/26/25 08:23	08/28/25 11:40	1

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			09/03/25 05:21	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			09/03/25 05:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		20 - 144		09/03/25 05:21	1

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND	H	0.010	ug/L		10/01/25 10:55	10/04/25 20:01	1
4,4'-DDE	ND	H	0.0051	ug/L		10/01/25 10:55	10/04/25 20:01	1
4,4'-DDT	ND	H	0.0051	ug/L		10/01/25 10:55	10/04/25 20:01	1
Aldrin	ND	H	0.0051	ug/L		10/01/25 10:55	10/04/25 20:01	1
alpha-BHC	ND	H	0.0020	ug/L		10/01/25 10:55	10/04/25 20:01	1
alpha-Chlordane	ND	H	0.051	ug/L		10/01/25 10:55	10/04/25 20:01	1
beta-BHC	ND	H	0.0076	ug/L		10/01/25 10:55	10/04/25 20:01	1
Chlordane	ND	H	0.051	ug/L		10/01/25 10:55	10/04/25 20:01	1
delta-BHC	ND	H	0.0051	ug/L		10/01/25 10:55	10/04/25 20:01	1
Dieldrin	ND	H	0.0051	ug/L		10/01/25 10:55	10/04/25 20:01	1
Endosulfan I	ND	H	0.0020	ug/L		10/01/25 10:55	10/04/25 20:01	1
Endosulfan II	ND	H	0.010	ug/L		10/01/25 10:55	10/04/25 20:01	1
Endosulfan sulfate	ND	H	0.0051	ug/L		10/01/25 10:55	10/04/25 20:01	1
Endrin	ND	H	0.0051	ug/L		10/01/25 10:55	10/04/25 20:01	1
Endrin aldehyde	ND	H *1	0.051	ug/L		10/01/25 10:55	10/04/25 20:01	1
Endrin ketone	ND	H	0.0051	ug/L		10/01/25 10:55	10/04/25 20:01	1
gamma-BHC (Lindane)	ND	H	0.0020	ug/L		10/01/25 10:55	10/04/25 20:01	1
gamma-Chlordane	ND	H	0.015	ug/L		10/01/25 10:55	10/04/25 20:01	1
Heptachlor	ND	H	0.0020	ug/L		10/01/25 10:55	10/04/25 20:01	1
Heptachlor epoxide	ND	H	0.010	ug/L		10/01/25 10:55	10/04/25 20:01	1
Methoxychlor	ND	H	0.010	ug/L		10/01/25 10:55	10/04/25 20:01	1
Toxaphene	ND	H	0.10	ug/L		10/01/25 10:55	10/04/25 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	103		20 - 154	10/01/25 10:55	10/04/25 20:01	1
Tetrachloro-m-xylene (Surr)	85		20 - 139	10/01/25 10:55	10/04/25 20:01	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Client Sample ID: Well 13 120hr

Date Collected: 08/21/25 09:30
Date Received: 08/22/25 10:01

Lab Sample ID: 380-167582-1

Matrix: Water

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND	H	0.10	ug/L		10/01/25 10:55	10/02/25 23:30	1
Aroclor-1221	ND	H	0.10	ug/L		10/01/25 10:55	10/02/25 23:30	1
Aroclor-1232	ND	H	0.10	ug/L		10/01/25 10:55	10/02/25 23:30	1
Aroclor-1242	ND	H	0.10	ug/L		10/01/25 10:55	10/02/25 23:30	1
Aroclor-1248	ND	H	0.10	ug/L		10/01/25 10:55	10/02/25 23:30	1
Aroclor-1254	ND	H	0.10	ug/L		10/01/25 10:55	10/02/25 23:30	1
Aroclor-1260	ND	H	0.10	ug/L		10/01/25 10:55	10/02/25 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*72*		*20 - 154*	*10/01/25 10:55*	*10/02/25 23:30*	*1*
Tetrachloro-m-xylene (Surr)	*59*		*20 - 139*	*10/01/25 10:55*	*10/02/25 23:30*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		08/28/25 23:37	08/30/25 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*187*	*S1+*	*46 - 136*	*08/28/25 23:37*	*08/30/25 12:09*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*115*		*46 - 136*	*08/28/25 23:37*	*08/30/25 12:09*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		230	ug/L		08/28/25 14:12	09/20/25 03:15	1
Diesel Range Organics [C10-C28]	ND		46	ug/L		08/28/25 14:12	09/20/25 03:15	1
C24-C44	ND		230	ug/L		08/28/25 14:12	09/20/25 03:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*90*		*53 - 151*	*08/28/25 14:12*	*09/20/25 03:15*	*1*
n-Octacosane (Surr)	*90*		*53 - 151*	*08/28/25 14:12*	*09/20/25 03:15*	*1*

Method: SW846 8015C - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		1300	mg/L		09/04/25 11:56	09/04/25 14:55	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*76*		*10 - 130*	*09/04/25 11:56*	*09/04/25 14:55*	*100*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**62**		4.0	mg/L			08/28/25 10:14	40
Fluoride	ND		4.0	mg/L			08/28/25 10:14	40
Sulfate	**2700**		40	mg/L			08/28/25 10:14	40

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20000**		500	mg/L			08/28/25 12:28	500

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.97**		0.50	ng/L			09/23/25 21:11	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Client Sample ID: Well 13 120hr

Date Collected: 08/21/25 09:30
Date Received: 08/22/25 10:01

Lab Sample ID: 380-167582-1

Matrix: Water

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND	F1	6.0		ug/L		09/22/25 13:05	09/22/25 23:28	1
Arsenic	ND		0.70		ug/L		09/22/25 13:05	09/22/25 23:28	1
Barium	**31**		5.0		ug/L		09/22/25 13:05	09/23/25 11:01	10
Cadmium	**0.035**		0.020		ug/L		09/22/25 13:05	09/22/25 23:28	1
Chromium	**1.1**		1.0		ug/L		09/22/25 13:05	09/22/25 23:28	1
Copper	ND		0.50		ug/L		09/22/25 13:05	09/22/25 23:28	1
Iron	**5.0**		5.0		ug/L		09/22/25 13:05	09/22/25 23:28	1
Lead	ND		0.050		ug/L		09/22/25 13:05	09/22/25 23:28	1
Manganese	**0.80**	**^2**	0.050		ug/L		09/22/25 13:05	09/22/25 23:28	1
Selenium	ND		0.70		ug/L		09/22/25 13:05	09/22/25 23:28	1
Silver	ND		1.0		ug/L		09/22/25 13:05	09/22/25 23:28	1
Vanadium	**2.3**		1.0		ug/L		09/22/25 13:05	09/22/25 23:28	1
Zinc	**9.3**		1.0		ug/L		09/22/25 13:05	09/22/25 23:28	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**400**		10		mg/L		08/26/25 14:36	08/27/25 14:29	5
Iron	ND	*+ *1	2.5		mg/L		08/26/25 14:36	08/27/25 14:29	5
Lithium	ND	F1	0.25		mg/L		08/26/25 14:36	08/27/25 14:29	5
Magnesium	**1300**		2.5		mg/L		08/26/25 14:36	08/27/25 14:29	5
Potassium	**400**		10		mg/L		08/26/25 14:36	08/27/25 14:29	5
Sodium	**10000**		50		mg/L		08/26/25 14:36	09/04/25 13:02	25
Strontium	**7.8**		0.050		mg/L		08/26/25 14:36	08/27/25 14:29	5
SiO2	**28**		2.7		mg/L		08/26/25 14:36	08/27/25 14:29	5

Method: SW846 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		20		ug/L		08/26/25 15:02	08/27/25 13:52	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		0.98		mg/L		08/25/25 08:17	08/30/25 15:44	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		09/15/25 14:32	09/15/25 21:45	1
Chemical Oxygen Demand (EPA 410.4)	**47**		10		mg/L		09/10/25 15:20	09/10/25 18:19	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**97**		5.0		mg/L			09/04/25 03:59	1
Bicarbonate (as CaCO3) (SM 2320B)	**97**		5.0		mg/L			09/04/25 03:59	1
Carbonate (as CaCO3) (SM 2320B)	ND		5.0		mg/L			09/04/25 03:59	1
Hydroxide (as CaCO3) (SM 2320B)	ND		5.0		mg/L			09/04/25 03:59	1
Salinity (SM 2520B)	**35**		2.0		psu			08/27/25 18:00	1
Total Dissolved Solids (SM 2540C)	**36000**		500		mg/L			08/28/25 19:59	1

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	**240**	**G**	50.9	56.3	4.00	55.7	pCi/L	08/29/25 07:01	09/03/25 21:41	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Client Sample ID: Well 13 120hr

Date Collected: 08/21/25 09:30
Date Received: 08/22/25 10:01

Lab Sample ID: 380-167582-1

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.746**		0.252	0.261	1.00	0.153	pCi/L	08/28/25 08:10	09/11/25 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*30 - 110*	*08/28/25 08:10*	*09/11/25 09:54*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.130	U	0.306	0.306	1.00	0.537	pCi/L	08/28/25 08:15	09/10/25 09:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*30 - 110*	*08/28/25 08:15*	*09/10/25 09:55*	*1*
Y Carrier	*82.2*		*30 - 110*	*08/28/25 08:15*	*09/10/25 09:55*	*1*

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	1.96	U	1.80	1.80	3.00	2.89	pCi/L	09/05/25 08:56	09/15/25 14:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*77.4*		*30 - 110*	*09/05/25 08:56*	*09/15/25 14:14*	*1*
Y Carrier	*94.6*		*30 - 110*	*09/05/25 08:56*	*09/15/25 14:14*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.875**		0.396	0.402	5.00	0.537	pCi/L		09/18/25 17:26	1

Method: SM7110C - Gross Alpha by Co-Precipitation

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	**3.30**		1.29	1.34	3.00	1.42	pCi/L	09/05/25 09:05	09/09/25 07:12	1

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
380-167582-1	Well 13 120hr	111	93	106	99
380-167582-1 - RA	Well 13 120hr	102	96	109	101
LCS 570-615835/1003	Lab Control Sample	109	100	103	100
LCS 570-616175/1002	Lab Control Sample	100	100	104	100
LCSD 570-615835/4	Lab Control Sample Dup	109	97	102	101
LCSD 570-616175/3	Lab Control Sample Dup	97	96	105	101
MB 570-615835/6	Method Blank	105	94	105	100
MB 570-616175/5	Method Blank	95	96	104	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-167582-1	Well 13 120hr	80	90	68	95	52	92
LCS 570-616825/2-A	Lab Control Sample	91	84	65	96	42	97
LCSD 570-616825/3-A	Lab Control Sample Dup	90	85	64	95	42	97
MB 570-616825/1-A	Method Blank	91	86	59	93	34	89

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FLN10	BAPd12	MNPd10
Lab Sample ID	Client Sample ID	(30-187)	(32-194)	(45-130)
380-167582-1	Well 13 120hr	60	57	54
LCS 410-692044/2-A	Lab Control Sample	60	65	51
LCSD 410-692044/3-A	Lab Control Sample Dup	65	74	53
MB 410-692044/1-A	Method Blank	67	70	57

Surrogate Legend

FLN10 = Fluoranthene-d10 (Surr)
BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB1 (20-144)							
380-167582-1	Well 13 120hr	97							
LCS 570-620020/32	Lab Control Sample	100							
LCSD 570-620020/33	Lab Control Sample Dup	95							
MB 570-620020/34	Method Blank	97							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)						
380-167582-1	Well 13 120hr	103	85						
LCS 570-633971/2-A	Lab Control Sample	126	109						
LCSD 570-633971/3-A	Lab Control Sample Dup	106	91						
MB 570-633971/1-A	Method Blank	96	83						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)						
380-167582-1	Well 13 120hr	72	59						
LCS 570-633971/4-A	Lab Control Sample	39	46						
LCSD 570-633971/5-A	Lab Control Sample Dup	56	53						
MB 570-633971/1-A	Method Blank	63	66						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)						
380-167582-1	Well 13 120hr	187 S1+	115						
LCS 410-692230/2-A	Lab Control Sample	134	115						
LCSD 410-692230/3-A	Lab Control Sample Dup	129	114						
MB 410-692230/1-A	Method Blank	129	112						

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	OTCSN1 (53-151)	OTCSN1 (53-151)
380-167582-1	Well 13 120hr	90	90
LCS 570-618349/2-A	Lab Control Sample	91	91
LCS 570-618349/5-A	Lab Control Sample	96	96
LCSD 570-618349/3-A	Lab Control Sample Dup	93	93
LCSD 570-618349/6-A	Lab Control Sample Dup	90	90
MB 570-618349/1-A	Method Blank	96	96

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015C - Glycols- Direct Injection (GC/FID)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	14BD1 (10-130)
380-167582-1	Well 13 120hr	76
LCS 410-694636/2-A	Lab Control Sample	108
MB 410-694636/1-A	Method Blank	68

Surrogate Legend

14BD = 1,4-Butanediol

Tracer/Carrier Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Ba (30-110)
380-167582-1	Well 13 120hr	90.2
LCS 160-734017/2-A	Lab Control Sample	91.9
MB 160-734017/1-A	Method Blank	81.2

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
380-167582-1	Well 13 120hr	90.2	82.2
LCS 160-734018/2-A	Lab Control Sample	91.9	83.7
MB 160-734018/1-A	Method Blank	81.2	89.3

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)
380-167582-1	Well 13 120hr	77.4	94.6
LCS 160-734895/2-A	Lab Control Sample	82.1	91.6
LCSD 160-734895/3-A	Lab Control Sample Dup	83.9	92.3
MB 160-734895/1-A	Method Blank	83.4	93.5

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-615835/6
Matrix: Water
Analysis Batch: 615835

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/23/25 11:36	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/23/25 11:36	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/23/25 11:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			08/23/25 11:36	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/23/25 11:36	1
1,1-Dichloroethane	ND		1.0		ug/L			08/23/25 11:36	1
1,1-Dichloroethene	ND		1.0		ug/L			08/23/25 11:36	1
1,1-Dichloropropene	ND		1.0		ug/L			08/23/25 11:36	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/23/25 11:36	1
1,2,3-Trichloropropane	ND		5.0		ug/L			08/23/25 11:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/23/25 11:36	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/23/25 11:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/23/25 11:36	1
1,2-Dibromoethane	ND		1.0		ug/L			08/23/25 11:36	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/23/25 11:36	1
1,2-Dichloroethane	ND		0.50		ug/L			08/23/25 11:36	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			08/23/25 11:36	1
1,2-Dichloropropane	ND		1.0		ug/L			08/23/25 11:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/23/25 11:36	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/23/25 11:36	1
1,3-Dichloropropane	ND		1.0		ug/L			08/23/25 11:36	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			08/23/25 11:36	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/23/25 11:36	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/23/25 11:36	1
2,2-Dichloropropane	ND		1.0		ug/L			08/23/25 11:36	1
2-Butanone	ND		10		ug/L			08/23/25 11:36	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			08/23/25 11:36	1
2-Chlorotoluene	ND		1.0		ug/L			08/23/25 11:36	1
2-Hexanone	ND		10		ug/L			08/23/25 11:36	1
4-Chlorotoluene	ND		1.0		ug/L			08/23/25 11:36	1
4-Methyl-2-pentanone	ND		10		ug/L			08/23/25 11:36	1
Acetone	ND		12		ug/L			08/23/25 11:36	1
Acrolein	ND		5.0		ug/L			08/23/25 11:36	1
Acrylonitrile	ND		2.0		ug/L			08/23/25 11:36	1
Benzene	ND		0.50		ug/L			08/23/25 11:36	1
Bromobenzene	ND		1.0		ug/L			08/23/25 11:36	1
Bromochloromethane	ND		1.0		ug/L			08/23/25 11:36	1
Bromodichloromethane	ND		1.0		ug/L			08/23/25 11:36	1
Bromoform	ND		1.0		ug/L			08/23/25 11:36	1
Bromomethane	ND		5.0		ug/L			08/23/25 11:36	1
Carbon disulfide	ND		10		ug/L			08/23/25 11:36	1
Carbon tetrachloride	ND		0.50		ug/L			08/23/25 11:36	1
Chlorobenzene	ND		1.0		ug/L			08/23/25 11:36	1
Chloroethane	ND		1.0		ug/L			08/23/25 11:36	1
Chloroform	ND		1.0		ug/L			08/23/25 11:36	1
Chloromethane	ND		1.0		ug/L			08/23/25 11:36	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/23/25 11:36	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/23/25 11:36	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-615835/6
Matrix: Water
Analysis Batch: 615835

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0		ug/L			08/23/25 11:36	1
Dibromomethane	ND		1.0		ug/L			08/23/25 11:36	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/23/25 11:36	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			08/23/25 11:36	1
Ethylbenzene	ND		1.0		ug/L			08/23/25 11:36	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			08/23/25 11:36	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/23/25 11:36	1
Isopropanol	ND		50		ug/L			08/23/25 11:36	1
Isopropylbenzene	ND		1.0		ug/L			08/23/25 11:36	1
m,p-Xylene	ND		1.0		ug/L			08/23/25 11:36	1
Methylene Chloride	ND		2.0		ug/L			08/23/25 11:36	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/23/25 11:36	1
Naphthalene	ND		10		ug/L			08/23/25 11:36	1
n-Butylbenzene	ND		1.0		ug/L			08/23/25 11:36	1
N-Propylbenzene	ND		1.0		ug/L			08/23/25 11:36	1
o-Xylene	ND		1.0		ug/L			08/23/25 11:36	1
p-Isopropyltoluene	ND		1.0		ug/L			08/23/25 11:36	1
sec-Butylbenzene	ND		1.0		ug/L			08/23/25 11:36	1
Styrene	ND		1.0		ug/L			08/23/25 11:36	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			08/23/25 11:36	1
tert-Butylbenzene	ND		1.0		ug/L			08/23/25 11:36	1
Tetrachloroethene	ND		1.0		ug/L			08/23/25 11:36	1
Tetrahydrofuran	ND		10		ug/L			08/23/25 11:36	1
Toluene	ND		1.0		ug/L			08/23/25 11:36	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/23/25 11:36	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/23/25 11:36	1
Trichloroethene	ND		1.0		ug/L			08/23/25 11:36	1
Trichlorofluoromethane	ND		5.0		ug/L			08/23/25 11:36	1
Trihalomethanes, Total	ND		1.0		ug/L			08/23/25 11:36	1
Vinyl acetate	ND		10		ug/L			08/23/25 11:36	1
Vinyl chloride	ND		0.50		ug/L			08/23/25 11:36	1
Xylenes, Total	ND		1.0		ug/L			08/23/25 11:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*60 - 140*		*08/23/25 11:36*	*1*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/23/25 11:36*	*1*
Dibromofluoromethane	*105*		*60 - 140*		*08/23/25 11:36*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*08/23/25 11:36*	*1*

Lab Sample ID: LCS 570-615835/1003
Matrix: Water
Analysis Batch: 615835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	19.0		ug/L		95	60 - 140
1,1,1-Trichloroethane	20.0	20.6		ug/L		103	70 - 130
1,1,2,2-Tetrachloroethane	20.0	17.9		ug/L		90	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.2		ug/L		116	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-615835/1003
Matrix: Water
Analysis Batch: 615835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	20.0	19.3		ug/L		97	70 - 130
1,1-Dichloroethane	20.0	21.8		ug/L		109	70 - 130
1,1-Dichloroethene	20.0	22.9		ug/L		115	50 - 150
1,1-Dichloropropene	20.0	22.5		ug/L		113	60 - 140
1,2,3-Trichlorobenzene	20.0	18.0		ug/L		90	60 - 140
1,2,3-Trichloropropane	20.0	18.0		ug/L		90	60 - 140
1,2,4-Trichlorobenzene	20.0	18.5		ug/L		93	60 - 140
1,2,4-Trimethylbenzene	20.0	20.8		ug/L		104	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	14.3		ug/L		71	60 - 140
1,2-Dibromoethane	20.0	18.6		ug/L		93	60 - 140
1,2-Dichlorobenzene	20.0	19.7		ug/L		99	65 - 135
1,2-Dichloroethane	20.0	20.3		ug/L		102	70 - 130
1,2-Dichloropropane	20.0	21.1		ug/L		105	35 - 165
1,3,5-Trimethylbenzene	20.0	20.7		ug/L		104	60 - 140
1,3-Dichlorobenzene	20.0	20.5		ug/L		102	70 - 130
1,3-Dichloropropane	20.0	20.1		ug/L		101	60 - 140
1,4-Dichlorobenzene	20.0	20.0		ug/L		100	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	23.4		ug/L		117	60 - 140
2,2-Dichloropropane	20.0	21.6		ug/L		108	60 - 140
2-Butanone	20.0	17.7		ug/L		89	60 - 140
2-Chloroethyl vinyl ether	20.0	19.3		ug/L		96	1 - 225
2-Chlorotoluene	20.0	20.5		ug/L		103	60 - 140
2-Hexanone	20.0	16.2		ug/L		81	60 - 140
4-Chlorotoluene	20.0	20.9		ug/L		104	60 - 140
4-Methyl-2-pentanone	20.0	15.8		ug/L		79	60 - 140
Acetone	20.0	20.8		ug/L		104	60 - 140
Acrolein	40.0	59.9	*+	ug/L		150	60 - 140
Acrylonitrile	20.0	18.1		ug/L		90	60 - 140
Benzene	20.0	21.6		ug/L		108	65 - 135
Bromobenzene	20.0	19.8		ug/L		99	60 - 140
Bromochloromethane	20.0	22.0		ug/L		110	60 - 140
Bromodichloromethane	20.0	19.8		ug/L		99	65 - 135
Bromoform	20.0	17.0		ug/L		85	70 - 130
Bromomethane	20.0	21.1		ug/L		105	15 - 185
Carbon disulfide	20.0	24.0		ug/L		120	60 - 140
Carbon tetrachloride	20.0	21.1		ug/L		106	70 - 130
Chlorobenzene	20.0	20.5		ug/L		103	65 - 135
Chloroethane	20.0	20.8		ug/L		104	40 - 160
Chloroform	20.0	21.7		ug/L		109	70 - 135
Chloromethane	20.0	19.9		ug/L		100	1 - 205
cis-1,2-Dichloroethene	20.0	21.6		ug/L		108	60 - 140
cis-1,3-Dichloropropene	20.0	19.8		ug/L		99	25 - 175
Dibromochloromethane	20.0	18.7		ug/L		93	70 - 135
Dibromomethane	20.0	19.6		ug/L		98	60 - 140
Dichlorodifluoromethane	20.0	19.5		ug/L		98	60 - 140
Di-isopropyl ether (DIPE)	20.0	21.1		ug/L		106	60 - 140
Ethylbenzene	20.0	21.0		ug/L		105	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	19.2		ug/L		96	60 - 140
Hexachloro-1,3-butadiene	20.0	20.1		ug/L		100	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-615835/1003
Matrix: Water
Analysis Batch: 615835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropanol	100	70.0		ug/L		70	60 - 140
Isopropylbenzene	20.0	20.3		ug/L		102	60 - 140
m,p-Xylene	40.0	41.9		ug/L		105	60 - 140
Methylene Chloride	20.0	21.0		ug/L		105	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	18.3		ug/L		91	60 - 140
Naphthalene	20.0	15.9		ug/L		79	60 - 140
n-Butylbenzene	20.0	21.0		ug/L		105	60 - 140
N-Propylbenzene	20.0	21.1		ug/L		106	60 - 140
o-Xylene	20.0	20.6		ug/L		103	60 - 140
p-Isopropyltoluene	20.0	20.6		ug/L		103	60 - 140
sec-Butylbenzene	20.0	20.9		ug/L		104	60 - 140
Styrene	20.0	20.5		ug/L		102	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	18.2		ug/L		91	60 - 140
tert-Butylbenzene	20.0	19.6		ug/L		98	60 - 140
Tetrachloroethene	20.0	20.5		ug/L		103	70 - 130
Tetrahydrofuran	20.0	18.1		ug/L		90	60 - 140
Toluene	20.0	20.6		ug/L		103	70 - 130
trans-1,2-Dichloroethene	20.0	21.4		ug/L		107	70 - 130
trans-1,3-Dichloropropene	20.0	18.7		ug/L		94	50 - 150
Trichloroethene	20.0	20.0		ug/L		100	65 - 135
Trichlorofluoromethane	20.0	20.9		ug/L		104	50 - 150
Vinyl acetate	20.0	21.5		ug/L		108	60 - 140
Vinyl chloride	20.0	21.3		ug/L		107	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*60 - 140*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*
Dibromofluoromethane	*103*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Lab Sample ID: LCSD 570-615835/4
Matrix: Water
Analysis Batch: 615835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	18.4		ug/L		92	60 - 140	3	30
1,1,1-Trichloroethane	20.0	19.3		ug/L		96	70 - 130	7	36
1,1,2,2-Tetrachloroethane	20.0	18.5		ug/L		93	60 - 140	3	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	21.6		ug/L		108	60 - 140	7	30
1,1,2-Trichloroethane	20.0	18.7		ug/L		94	70 - 130	3	45
1,1-Dichloroethane	20.0	20.8		ug/L		104	70 - 130	5	40
1,1-Dichloroethene	20.0	21.8		ug/L		109	50 - 150	5	32
1,1-Dichloropropene	20.0	21.4		ug/L		107	60 - 140	5	30
1,2,3-Trichlorobenzene	20.0	18.3		ug/L		91	60 - 140	1	30
1,2,3-Trichloropropane	20.0	17.9		ug/L		90	60 - 140	1	30
1,2,4-Trichlorobenzene	20.0	18.7		ug/L		94	60 - 140	1	30
1,2,4-Trimethylbenzene	20.0	20.2		ug/L		101	60 - 140	3	30
1,2-Dibromo-3-Chloropropane	20.0	14.6		ug/L		73	60 - 140	2	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-615835/4
Matrix: Water
Analysis Batch: 615835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane	20.0	18.2		ug/L		91	60 - 140	3	30
1,2-Dichlorobenzene	20.0	19.7		ug/L		99	65 - 135	0	57
1,2-Dichloroethane	20.0	19.9		ug/L		100	70 - 130	2	49
1,2-Dichloropropane	20.0	20.4		ug/L		102	35 - 165	3	55
1,3,5-Trimethylbenzene	20.0	19.6		ug/L		98	60 - 140	6	30
1,3-Dichlorobenzene	20.0	20.2		ug/L		101	70 - 130	1	43
1,3-Dichloropropane	20.0	19.4		ug/L		97	60 - 140	3	30
1,4-Dichlorobenzene	20.0	20.0		ug/L		100	65 - 135	0	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	22.1		ug/L		111	60 - 140	6	30
2,2-Dichloropropane	20.0	20.6		ug/L		103	60 - 140	5	30
2-Butanone	20.0	17.9		ug/L		89	60 - 140	1	30
2-Chloroethyl vinyl ether	20.0	19.0		ug/L		95	1 - 225	1	71
2-Chlorotoluene	20.0	19.9		ug/L		99	60 - 140	3	30
2-Hexanone	20.0	15.3		ug/L		76	60 - 140	6	30
4-Chlorotoluene	20.0	20.8		ug/L		104	60 - 140	0	30
4-Methyl-2-pentanone	20.0	15.6		ug/L		78	60 - 140	1	30
Acetone	20.0	19.7		ug/L		99	60 - 140	5	30
Acrolein	40.0	64.0	*+	ug/L		160	60 - 140	7	60
Acrylonitrile	20.0	17.6		ug/L		88	60 - 140	3	60
Benzene	20.0	21.0		ug/L		105	65 - 135	3	61
Bromobenzene	20.0	19.2		ug/L		96	60 - 140	3	30
Bromochloromethane	20.0	21.1		ug/L		106	60 - 140	4	30
Bromodichloromethane	20.0	19.1		ug/L		96	65 - 135	4	56
Bromoform	20.0	17.1		ug/L		86	70 - 130	0	42
Bromomethane	20.0	18.4		ug/L		92	15 - 185	13	61
Carbon disulfide	20.0	22.4		ug/L		112	60 - 140	7	30
Carbon tetrachloride	20.0	20.1		ug/L		101	70 - 130	5	41
Chlorobenzene	20.0	19.4		ug/L		97	65 - 135	5	53
Chloroethane	20.0	19.9		ug/L		100	40 - 160	4	78
Chloroform	20.0	20.8		ug/L		104	70 - 135	4	30
Chloromethane	20.0	19.3		ug/L		97	1 - 205	3	60
cis-1,2-Dichloroethene	20.0	20.9		ug/L		105	60 - 140	3	30
cis-1,3-Dichloropropene	20.0	19.0		ug/L		95	25 - 175	4	58
Dibromochloromethane	20.0	17.7		ug/L		88	70 - 135	6	50
Dibromomethane	20.0	19.2		ug/L		96	60 - 140	2	30
Dichlorodifluoromethane	20.0	18.3		ug/L		91	60 - 140	7	30
Di-isopropyl ether (DIPE)	20.0	20.1		ug/L		101	60 - 140	5	30
Ethylbenzene	20.0	20.1		ug/L		100	60 - 140	4	63
Ethyl-t-butyl ether (ETBE)	20.0	18.8		ug/L		94	60 - 140	2	30
Hexachloro-1,3-butadiene	20.0	19.7		ug/L		98	60 - 140	2	30
Isopropanol	100	62.0		ug/L		62	60 - 140	12	30
Isopropylbenzene	20.0	19.3		ug/L		97	60 - 140	5	30
m,p-Xylene	40.0	40.1		ug/L		100	60 - 140	4	30
Methylene Chloride	20.0	20.0		ug/L		100	60 - 140	5	28
Methyl-t-Butyl Ether (MTBE)	20.0	18.0		ug/L		90	60 - 140	1	30
Naphthalene	20.0	16.1		ug/L		81	60 - 140	2	30
n-Butylbenzene	20.0	20.7		ug/L		103	60 - 140	2	30
N-Propylbenzene	20.0	20.3		ug/L		102	60 - 140	4	30
o-Xylene	20.0	19.6		ug/L		98	60 - 140	5	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-615835/4
Matrix: Water
Analysis Batch: 615835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
p-Isopropyltoluene	20.0	20.1		ug/L		100	60 - 140	2	30
sec-Butylbenzene	20.0	20.4		ug/L		102	60 - 140	2	30
Styrene	20.0	19.7		ug/L		98	60 - 140	4	30
Tert-amyl-methyl ether (TAME)	20.0	18.1		ug/L		91	60 - 140	1	30
tert-Butylbenzene	20.0	19.5		ug/L		97	60 - 140	1	30
Tetrachloroethene	20.0	19.5		ug/L		98	70 - 130	5	39
Tetrahydrofuran	20.0	17.3		ug/L		87	60 - 140	4	30
Toluene	20.0	20.1		ug/L		100	70 - 130	3	41
trans-1,2-Dichloroethene	20.0	20.3		ug/L		102	70 - 130	5	45
trans-1,3-Dichloropropene	20.0	18.1		ug/L		91	50 - 150	3	86
Trichloroethene	20.0	19.3		ug/L		96	65 - 135	3	48
Trichlorofluoromethane	20.0	19.8		ug/L		99	50 - 150	5	84
Vinyl acetate	20.0	20.8		ug/L		104	60 - 140	4	30
Vinyl chloride	20.0	20.0		ug/L		100	5 - 195	6	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*60 - 140*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*
Dibromofluoromethane	*102*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Lab Sample ID: MB 570-616175/5
Matrix: Water
Analysis Batch: 616175

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			08/25/25 10:27	1
1,1,1-Trichloroethane	ND		1.0	ug/L			08/25/25 10:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			08/25/25 10:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	ug/L			08/25/25 10:27	1
1,1,2-Trichloroethane	ND		1.0	ug/L			08/25/25 10:27	1
1,1-Dichloroethane	ND		1.0	ug/L			08/25/25 10:27	1
1,1-Dichloroethene	ND		1.0	ug/L			08/25/25 10:27	1
1,1-Dichloropropene	ND		1.0	ug/L			08/25/25 10:27	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			08/25/25 10:27	1
1,2,3-Trichloropropane	ND		5.0	ug/L			08/25/25 10:27	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			08/25/25 10:27	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			08/25/25 10:27	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			08/25/25 10:27	1
1,2-Dibromoethane	ND		1.0	ug/L			08/25/25 10:27	1
1,2-Dichlorobenzene	ND		1.0	ug/L			08/25/25 10:27	1
1,2-Dichloroethane	ND		0.50	ug/L			08/25/25 10:27	1
1,2-Dichloroethene, Total	ND		1.0	ug/L			08/25/25 10:27	1
1,2-Dichloropropane	ND		1.0	ug/L			08/25/25 10:27	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			08/25/25 10:27	1
1,3-Dichlorobenzene	ND		1.0	ug/L			08/25/25 10:27	1
1,3-Dichloropropane	ND		1.0	ug/L			08/25/25 10:27	1
1,3-Dichloropropene, Total	ND		0.50	ug/L			08/25/25 10:27	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-616175/5
Matrix: Water
Analysis Batch: 616175

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.0		ug/L			08/25/25 10:27	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/25/25 10:27	1
2,2-Dichloropropane	ND		1.0		ug/L			08/25/25 10:27	1
2-Butanone	ND		10		ug/L			08/25/25 10:27	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			08/25/25 10:27	1
2-Chlorotoluene	ND		1.0		ug/L			08/25/25 10:27	1
2-Hexanone	ND		10		ug/L			08/25/25 10:27	1
4-Chlorotoluene	ND		1.0		ug/L			08/25/25 10:27	1
4-Methyl-2-pentanone	ND		10		ug/L			08/25/25 10:27	1
Acetone	ND		12		ug/L			08/25/25 10:27	1
Acrolein	ND		5.0		ug/L			08/25/25 10:27	1
Acrylonitrile	ND		2.0		ug/L			08/25/25 10:27	1
Benzene	ND		0.50		ug/L			08/25/25 10:27	1
Bromobenzene	ND		1.0		ug/L			08/25/25 10:27	1
Bromochloromethane	ND		1.0		ug/L			08/25/25 10:27	1
Bromodichloromethane	ND		1.0		ug/L			08/25/25 10:27	1
Bromoform	ND		1.0		ug/L			08/25/25 10:27	1
Bromomethane	ND		5.0		ug/L			08/25/25 10:27	1
Carbon disulfide	ND		10		ug/L			08/25/25 10:27	1
Carbon tetrachloride	ND		0.50		ug/L			08/25/25 10:27	1
Chlorobenzene	ND		1.0		ug/L			08/25/25 10:27	1
Chloroethane	ND		1.0		ug/L			08/25/25 10:27	1
Chloroform	ND		1.0		ug/L			08/25/25 10:27	1
Chloromethane	ND		1.0		ug/L			08/25/25 10:27	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/25/25 10:27	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/25/25 10:27	1
Dibromochloromethane	ND		1.0		ug/L			08/25/25 10:27	1
Dibromomethane	ND		1.0		ug/L			08/25/25 10:27	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/25/25 10:27	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			08/25/25 10:27	1
Ethanol	ND		100		ug/L			08/25/25 10:27	1
Ethylbenzene	ND		1.0		ug/L			08/25/25 10:27	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			08/25/25 10:27	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/25/25 10:27	1
Isopropanol	ND		50		ug/L			08/25/25 10:27	1
Isopropylbenzene	ND		1.0		ug/L			08/25/25 10:27	1
m,p-Xylene	ND		1.0		ug/L			08/25/25 10:27	1
Methylene Chloride	ND		2.0		ug/L			08/25/25 10:27	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/25/25 10:27	1
Naphthalene	ND		10		ug/L			08/25/25 10:27	1
n-Butylbenzene	ND		1.0		ug/L			08/25/25 10:27	1
N-Propylbenzene	ND		1.0		ug/L			08/25/25 10:27	1
o-Xylene	ND		1.0		ug/L			08/25/25 10:27	1
p-Isopropyltoluene	ND		1.0		ug/L			08/25/25 10:27	1
sec-Butylbenzene	ND		1.0		ug/L			08/25/25 10:27	1
Styrene	ND		1.0		ug/L			08/25/25 10:27	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			08/25/25 10:27	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/25/25 10:27	1
tert-Butylbenzene	ND		1.0		ug/L			08/25/25 10:27	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-616175/5
Matrix: Water
Analysis Batch: 616175

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0		ug/L			08/25/25 10:27	1
Tetrahydrofuran	ND		10		ug/L			08/25/25 10:27	1
Toluene	ND		1.0		ug/L			08/25/25 10:27	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/25/25 10:27	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/25/25 10:27	1
Trichloroethene	ND		1.0		ug/L			08/25/25 10:27	1
Trichlorofluoromethane	ND		5.0		ug/L			08/25/25 10:27	1
Trihalomethanes, Total	ND		1.0		ug/L			08/25/25 10:27	1
Vinyl acetate	ND		10		ug/L			08/25/25 10:27	1
Vinyl chloride	ND		0.50		ug/L			08/25/25 10:27	1
Xylenes, Total	ND		1.0		ug/L			08/25/25 10:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*60 - 140*		*08/25/25 10:27*	*1*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/25/25 10:27*	*1*
Dibromofluoromethane	*104*		*60 - 140*		*08/25/25 10:27*	*1*
Toluene-d8 (Surr)	*103*		*60 - 140*		*08/25/25 10:27*	*1*

Lab Sample ID: LCS 570-616175/1002
Matrix: Water
Analysis Batch: 616175

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	21.1		ug/L		106	60 - 140
1,1,1-Trichloroethane	20.0	23.4		ug/L		117	70 - 130
1,1,2,2-Tetrachloroethane	20.0	16.8		ug/L		84	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.1		ug/L		111	60 - 140
1,1,2-Trichloroethane	20.0	17.9		ug/L		89	70 - 130
1,1-Dichloroethane	20.0	21.8		ug/L		109	70 - 130
1,1-Dichloroethene	20.0	21.8		ug/L		109	50 - 150
1,1-Dichloropropene	20.0	22.9		ug/L		114	60 - 140
1,2,3-Trichlorobenzene	20.0	18.0		ug/L		90	60 - 140
1,2,3-Trichloropropane	20.0	15.9		ug/L		79	60 - 140
1,2,4-Trichlorobenzene	20.0	19.3		ug/L		97	60 - 140
1,2,4-Trimethylbenzene	20.0	20.4		ug/L		102	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	15.4		ug/L		77	60 - 140
1,2-Dibromoethane	20.0	16.9		ug/L		84	60 - 140
1,2-Dichlorobenzene	20.0	21.7		ug/L		108	65 - 135
1,2-Dichloroethane	20.0	20.6		ug/L		103	70 - 130
1,2-Dichloropropane	20.0	21.3		ug/L		106	35 - 165
1,3,5-Trimethylbenzene	20.0	19.8		ug/L		99	60 - 140
1,3-Dichlorobenzene	20.0	21.5		ug/L		108	70 - 130
1,3-Dichloropropane	20.0	17.4		ug/L		87	60 - 140
1,4-Dichlorobenzene	20.0	21.3		ug/L		106	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	23.0		ug/L		115	60 - 140
2,2-Dichloropropane	20.0	24.5		ug/L		122	60 - 140
2-Butanone	20.0	15.4		ug/L		77	60 - 140
2-Chloroethyl vinyl ether	20.0	12.9		ug/L		64	1 - 225

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-616175/1002
Matrix: Water
Analysis Batch: 616175

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chlorotoluene	20.0	20.2		ug/L		101	60 - 140
2-Hexanone	20.0	12.7		ug/L		64	60 - 140
4-Chlorotoluene	20.0	20.8		ug/L		104	60 - 140
4-Methyl-2-pentanone	20.0	15.3		ug/L		76	60 - 140
Acetone	20.0	14.3		ug/L		71	60 - 140
Acrolein	40.0	34.6		ug/L		87	60 - 140
Acrylonitrile	20.0	17.0		ug/L		85	60 - 140
Benzene	20.0	21.5		ug/L		108	65 - 135
Bromobenzene	20.0	19.8		ug/L		99	60 - 140
Bromochloromethane	20.0	22.2		ug/L		111	60 - 140
Bromodichloromethane	20.0	20.5		ug/L		102	65 - 135
Bromoform	20.0	18.7		ug/L		94	70 - 130
Bromomethane	20.0	25.8		ug/L		129	15 - 185
Carbon disulfide	20.0	21.0		ug/L		105	60 - 140
Carbon tetrachloride	20.0	24.4		ug/L		122	70 - 130
Chlorobenzene	20.0	20.6		ug/L		103	65 - 135
Chloroethane	20.0	20.4		ug/L		102	40 - 160
Chloroform	20.0	21.8		ug/L		109	70 - 135
Chloromethane	20.0	23.6		ug/L		118	1 - 205
cis-1,2-Dichloroethene	20.0	23.1		ug/L		116	60 - 140
cis-1,3-Dichloropropene	20.0	20.5		ug/L		102	25 - 175
Dibromochloromethane	20.0	18.7		ug/L		94	70 - 135
Dibromomethane	20.0	19.9		ug/L		99	60 - 140
Dichlorodifluoromethane	20.0	20.2		ug/L		101	60 - 140
Di-isopropyl ether (DIPE)	20.0	20.6		ug/L		103	60 - 140
Ethanol	200	213		ug/L		106	60 - 140
Ethylbenzene	20.0	20.5		ug/L		103	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	19.0		ug/L		95	60 - 140
Hexachloro-1,3-butadiene	20.0	21.8		ug/L		109	60 - 140
Isopropanol	100	74.3		ug/L		74	60 - 140
Isopropylbenzene	20.0	20.3		ug/L		101	60 - 140
m,p-Xylene	40.0	41.9		ug/L		105	60 - 140
Methylene Chloride	20.0	20.8		ug/L		104	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	18.5		ug/L		92	60 - 140
Naphthalene	20.0	12.8		ug/L		64	60 - 140
n-Butylbenzene	20.0	21.4		ug/L		107	60 - 140
N-Propylbenzene	20.0	20.7		ug/L		104	60 - 140
o-Xylene	20.0	20.9		ug/L		104	60 - 140
p-Isopropyltoluene	20.0	21.5		ug/L		107	60 - 140
sec-Butylbenzene	20.0	20.9		ug/L		105	60 - 140
Styrene	20.0	19.5		ug/L		97	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	17.9		ug/L		90	60 - 140
tert-Butyl alcohol (TBA)	100	97.5		ug/L		97	60 - 140
tert-Butylbenzene	20.0	22.6		ug/L		113	60 - 140
Tetrachloroethene	20.0	21.9		ug/L		110	70 - 130
Tetrahydrofuran	20.0	15.1		ug/L		76	60 - 140
Toluene	20.0	21.0		ug/L		105	70 - 130
trans-1,2-Dichloroethene	20.0	22.2		ug/L		111	70 - 130
trans-1,3-Dichloropropene	20.0	18.3		ug/L		92	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-616175/1002
Matrix: Water
Analysis Batch: 616175

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Trichloroethene			20.0	21.4		ug/L		107	65 - 135		
Trichlorofluoromethane			20.0	21.9		ug/L		110	50 - 150		
Vinyl acetate			20.0	18.4		ug/L		92	60 - 140		
Vinyl chloride			20.0	22.5		ug/L		112	5 - 195		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*60 - 140*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*
Dibromofluoromethane	*104*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Lab Sample ID: LCSD 570-616175/3
Matrix: Water
Analysis Batch: 616175

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			20.0	20.2		ug/L		101	60 - 140	5	30
1,1,1-Trichloroethane			20.0	22.2		ug/L		111	70 - 130	5	36
1,1,2,2-Tetrachloroethane			20.0	16.5		ug/L		82	60 - 140	2	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne			20.0	20.7		ug/L		104	60 - 140	7	30
1,1,2-Trichloroethane			20.0	17.0		ug/L		85	70 - 130	5	45
1,1-Dichloroethane			20.0	20.7		ug/L		104	70 - 130	5	40
1,1-Dichloroethene			20.0	20.5		ug/L		103	50 - 150	6	32
1,1-Dichloropropene			20.0	22.0		ug/L		110	60 - 140	4	30
1,2,3-Trichlorobenzene			20.0	19.0		ug/L		95	60 - 140	5	30
1,2,3-Trichloropropane			20.0	15.3		ug/L		76	60 - 140	4	30
1,2,4-Trichlorobenzene			20.0	19.5		ug/L		97	60 - 140	1	30
1,2,4-Trimethylbenzene			20.0	19.8		ug/L		99	60 - 140	3	30
1,2-Dibromo-3-Chloropropane			20.0	15.3		ug/L		76	60 - 140	1	30
1,2-Dibromoethane			20.0	15.8		ug/L		79	60 - 140	7	30
1,2-Dichlorobenzene			20.0	21.5		ug/L		108	65 - 135	1	57
1,2-Dichloroethane			20.0	20.2		ug/L		101	70 - 130	2	49
1,2-Dichloropropane			20.0	20.1		ug/L		100	35 - 165	6	55
1,3,5-Trimethylbenzene			20.0	19.1		ug/L		96	60 - 140	4	30
1,3-Dichlorobenzene			20.0	21.3		ug/L		106	70 - 130	1	43
1,3-Dichloropropane			20.0	16.4		ug/L		82	60 - 140	6	30
1,4-Dichlorobenzene			20.0	21.1		ug/L		106	65 - 135	1	57
2,2-Dichloro-1,1,1-trifluoroethane			20.0	21.1		ug/L		105	60 - 140	9	30
2,2-Dichloropropane			20.0	22.6		ug/L		113	60 - 140	8	30
2-Butanone			20.0	15.0		ug/L		75	60 - 140	3	30
2-Chloroethyl vinyl ether			20.0	13.4		ug/L		67	1 - 225	4	71
2-Chlorotoluene			20.0	19.6		ug/L		98	60 - 140	3	30
2-Hexanone			20.0	13.2		ug/L		66	60 - 140	4	30
4-Chlorotoluene			20.0	20.5		ug/L		103	60 - 140	1	30
4-Methyl-2-pentanone			20.0	14.7		ug/L		74	60 - 140	4	30
Acetone			20.0	11.9	J	ug/L		60	60 - 140	18	30
Acrolein			40.0	30.1		ug/L		75	60 - 140	14	60
Acrylonitrile			20.0	14.6		ug/L		73	60 - 140	15	60

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-616175/3
Matrix: Water
Analysis Batch: 616175

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	20.0	21.0		ug/L		105	65 - 135	3	61
Bromobenzene	20.0	19.2		ug/L		96	60 - 140	3	30
Bromochloromethane	20.0	21.8		ug/L		109	60 - 140	2	30
Bromodichloromethane	20.0	20.1		ug/L		100	65 - 135	2	56
Bromoform	20.0	18.3		ug/L		92	70 - 130	2	42
Bromomethane	20.0	24.1		ug/L		121	15 - 185	7	61
Carbon disulfide	20.0	19.7		ug/L		98	60 - 140	7	30
Carbon tetrachloride	20.0	23.3		ug/L		116	70 - 130	5	41
Chlorobenzene	20.0	19.8		ug/L		99	65 - 135	4	53
Chloroethane	20.0	19.3		ug/L		97	40 - 160	6	78
Chloroform	20.0	21.1		ug/L		106	70 - 135	3	30
Chloromethane	20.0	23.3		ug/L		117	1 - 205	1	60
cis-1,2-Dichloroethene	20.0	22.2		ug/L		111	60 - 140	4	30
cis-1,3-Dichloropropene	20.0	19.4		ug/L		97	25 - 175	6	58
Dibromochloromethane	20.0	18.4		ug/L		92	70 - 135	2	50
Dibromomethane	20.0	19.0		ug/L		95	60 - 140	5	30
Dichlorodifluoromethane	20.0	18.7		ug/L		93	60 - 140	8	30
Di-isopropyl ether (DIPE)	20.0	19.4		ug/L		97	60 - 140	6	30
Ethanol	200	212		ug/L		106	60 - 140	0	30
Ethylbenzene	20.0	19.5		ug/L		97	60 - 140	5	63
Ethyl-t-butyl ether (ETBE)	20.0	18.2		ug/L		91	60 - 140	4	30
Hexachloro-1,3-butadiene	20.0	22.4		ug/L		112	60 - 140	3	30
Isopropanol	100	73.4		ug/L		73	60 - 140	1	30
Isopropylbenzene	20.0	19.0		ug/L		95	60 - 140	7	30
m,p-Xylene	40.0	40.0		ug/L		100	60 - 140	5	30
Methylene Chloride	20.0	19.9		ug/L		99	60 - 140	5	28
Methyl-t-Butyl Ether (MTBE)	20.0	17.3		ug/L		87	60 - 140	6	30
Naphthalene	20.0	13.4		ug/L		67	60 - 140	4	30
n-Butylbenzene	20.0	21.0		ug/L		105	60 - 140	2	30
N-Propylbenzene	20.0	20.0		ug/L		100	60 - 140	4	30
o-Xylene	20.0	20.1		ug/L		100	60 - 140	4	30
p-Isopropyltoluene	20.0	20.7		ug/L		104	60 - 140	4	30
sec-Butylbenzene	20.0	20.4		ug/L		102	60 - 140	3	30
Styrene	20.0	18.6		ug/L		93	60 - 140	5	30
Tert-amyl-methyl ether (TAME)	20.0	17.0		ug/L		85	60 - 140	5	30
tert-Butyl alcohol (TBA)	100	100		ug/L		100	60 - 140	3	30
tert-Butylbenzene	20.0	21.8		ug/L		109	60 - 140	4	30
Tetrachloroethene	20.0	20.4		ug/L		102	70 - 130	7	39
Tetrahydrofuran	20.0	15.2		ug/L		76	60 - 140	1	30
Toluene	20.0	20.6		ug/L		103	70 - 130	2	41
trans-1,2-Dichloroethene	20.0	21.4		ug/L		107	70 - 130	4	45
trans-1,3-Dichloropropene	20.0	18.1		ug/L		91	50 - 150	1	86
Trichloroethene	20.0	20.1		ug/L		101	65 - 135	6	48
Trichlorofluoromethane	20.0	21.3		ug/L		106	50 - 150	3	84
Vinyl acetate	20.0	17.6		ug/L		88	60 - 140	4	30
Vinyl chloride	20.0	20.9		ug/L		105	5 - 195	7	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-616175/3
Matrix: Water
Analysis Batch: 616175

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*60 - 140*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*
Dibromofluoromethane	*105*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-616825/1-A
Matrix: Water
Analysis Batch: 618111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616825

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
1,2-Dichlorobenzene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
1,3-Dichlorobenzene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
1,4-Dichlorobenzene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
1-Methylnaphthalene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2,4,5-Trichlorophenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2,4,6-Trichlorophenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2,4-Dichlorophenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2,4-Dimethylphenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2,4-Dinitrophenol	ND		50		ug/L		08/26/25 08:23	08/28/25 09:15	1
2,4-Dinitrotoluene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2,6-Dichlorophenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2,6-Dinitrotoluene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2-Chloronaphthalene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2-Chlorophenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2-Methylnaphthalene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2-Methylphenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2-Nitroaniline	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
2-Nitrophenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
3,3'-Dichlorobenzidine	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
3/4-Methylphenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
3-Nitroaniline	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		08/26/25 08:23	08/28/25 09:15	1
4-Bromophenyl phenyl ether	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
4-Chloro-3-methylphenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
4-Chloroaniline	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
4-Nitroaniline	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
4-Nitrophenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Acenaphthene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Acenaphthylene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Acetophenone	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Alpha-Terpineol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Aniline	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Anthracene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-616825/1-A
Matrix: Water
Analysis Batch: 618111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616825

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Azobenzene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Benzidine	ND		50		ug/L		08/26/25 08:23	08/28/25 09:15	1
Benzo[a]anthracene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Benzo[a]pyrene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Benzo[b]fluoranthene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Benzo[k]fluoranthene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Benzoic acid	ND		50		ug/L		08/26/25 08:23	08/28/25 09:15	1
Benzyl alcohol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Bis(2-chloroethyl)ether	ND		25		ug/L		08/26/25 08:23	08/28/25 09:15	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Butyl benzyl phthalate	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Carbazole	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Chrysene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Dibenz(a,h)anthracene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Dibenzofuran	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Diethyl phthalate	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Dimethyl phthalate	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Di-n-butyl phthalate	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Di-n-octyl phthalate	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Fluoranthene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Fluorene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Hexachloro-1,3-butadiene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Hexachlorobenzene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Hexachlorocyclopentadiene	ND		25		ug/L		08/26/25 08:23	08/28/25 09:15	1
Hexachloroethane	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Isophorone	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Naphthalene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
n-Decane	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Nitrobenzene	ND		25		ug/L		08/26/25 08:23	08/28/25 09:15	1
N-Nitrosodimethylamine	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
N-Nitrosodiphenylamine	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
n-Octadecane	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Pentachlorophenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Phenanthrene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Phenol	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Pyrene	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1
Pyridine	ND		10		ug/L		08/26/25 08:23	08/28/25 09:15	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*08/26/25 08:23*	*08/28/25 09:15*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*08/26/25 08:23*	*08/28/25 09:15*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*08/26/25 08:23*	*08/28/25 09:15*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*08/26/25 08:23*	*08/28/25 09:15*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-616825/1-A
Matrix: Water
Analysis Batch: 618111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616825

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Phenylacetic Acid TIC	ND		ug/L			103-82-2	08/26/25 08:23	08/28/25 09:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		33 - 139	08/26/25 08:23	08/28/25 09:15	1
2-Fluorobiphenyl (Surr)	86		33 - 126	08/26/25 08:23	08/28/25 09:15	1
2-Fluorophenol (Surr)	59		12 - 120	08/26/25 08:23	08/28/25 09:15	1
Nitrobenzene-d5 (Surr)	93		36 - 120	08/26/25 08:23	08/28/25 09:15	1
Phenol-d6 (Surr)	34		10 - 120	08/26/25 08:23	08/28/25 09:15	1
p-Terphenyl-d14 (Surr)	89		47 - 131	08/26/25 08:23	08/28/25 09:15	1

Lab Sample ID: LCS 570-616825/2-A
Matrix: Water
Analysis Batch: 618111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	100	90.8		ug/L		91	57 - 130
1,2-Dichlorobenzene	100	79.7		ug/L		80	50 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	85.6		ug/L		86	57 - 120
1,3-Dichlorobenzene	100	78.2		ug/L		78	46 - 120
1,4-Dichlorobenzene	100	79.4		ug/L		79	47 - 120
1-Methylnaphthalene	100	94.0		ug/L		94	63 - 120
2,4,5-Trichlorophenol	100	87.7		ug/L		88	62 - 120
2,4,6-Trichlorophenol	100	97.2		ug/L		97	52 - 129
2,4-Dichlorophenol	100	99.6		ug/L		100	53 - 122
2,4-Dimethylphenol	100	98.1		ug/L		98	42 - 120
2,4-Dinitrophenol	100	98.4		ug/L		98	1 - 173
2,4-Dinitrotoluene	100	93.1		ug/L		93	48 - 127
2,6-Dichlorophenol	100	98.3		ug/L		98	64 - 120
2,6-Dinitrotoluene	100	93.3		ug/L		93	68 - 137
2-Chloronaphthalene	100	89.8		ug/L		90	65 - 120
2-Chlorophenol	100	94.6		ug/L		95	36 - 120
2-Methylnaphthalene	100	90.4		ug/L		90	60 - 120
2-Methylphenol	100	78.4		ug/L		78	55 - 120
2-Nitroaniline	100	101		ug/L		101	53 - 120
2-Nitrophenol	100	96.8		ug/L		97	45 - 167
3,3'-Dichlorobenzidine	100	87.9		ug/L		88	8 - 213
3/4-Methylphenol	200	152		ug/L		76	41 - 120
3-Nitroaniline	100	95.7		ug/L		96	62 - 120
4,6-Dinitro-2-methylphenol	100	89.7		ug/L		90	53 - 130
4-Bromophenyl phenyl ether	100	90.6		ug/L		91	65 - 120
4-Chloro-3-methylphenol	100	95.3		ug/L		95	41 - 128
4-Chloroaniline	100	97.2		ug/L		97	53 - 120
4-Chlorophenyl phenyl ether	100	94.2		ug/L		94	38 - 145
4-Nitroaniline	100	105		ug/L		105	61 - 120
4-Nitrophenol	100	31.9		ug/L		32	13 - 129
Acenaphthene	100	89.8		ug/L		90	60 - 132
Acenaphthylene	100	90.3		ug/L		90	54 - 126

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-616825/2-A
Matrix: Water
Analysis Batch: 618111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetophenone	100	92.3		ug/L		92	45 - 120
Alpha-Terpineol	100	86.3		ug/L		86	60 - 140
Aniline	100	86.2		ug/L		86	50 - 120
Anthracene	100	89.7		ug/L		90	43 - 120
Azobenzene	100	85.6		ug/L		86	57 - 120
Benzidine	100	25.5	J	ug/L		26	20 - 143
Benzo[a]anthracene	100	97.9		ug/L		98	42 - 133
Benzo[a]pyrene	100	103		ug/L		103	32 - 148
Benzo[b]fluoranthene	100	103		ug/L		103	42 - 140
Benzo[g,h,i]perylene	100	100		ug/L		100	1 - 195
Benzo[k]fluoranthene	100	100		ug/L		100	25 - 146
Benzoic acid	100	34.6	J	ug/L		35	20 - 120
Benzyl alcohol	100	91.0		ug/L		91	47 - 120
Bis (2-chloroethoxy) methane	100	95.5		ug/L		95	49 - 165
bis (2-chloroisopropyl) ether	100	96.5		ug/L		96	63 - 139
Bis(2-chloroethyl)ether	100	93.5		ug/L		94	43 - 126
Bis(2-ethylhexyl) phthalate	100	103		ug/L		103	29 - 137
Butyl benzyl phthalate	100	101		ug/L		101	1 - 140
Chrysene	100	94.6		ug/L		95	44 - 140
Dibenz(a,h)anthracene	100	94.2		ug/L		94	1 - 200
Dibenzofuran	100	97.5		ug/L		98	61 - 120
Diethyl phthalate	100	102		ug/L		102	1 - 120
Dimethyl phthalate	100	96.1		ug/L		96	1 - 120
Di-n-butyl phthalate	100	99.2		ug/L		99	8 - 120
Di-n-octyl phthalate	100	97.3		ug/L		97	19 - 132
Fluoranthene	100	90.9		ug/L		91	43 - 121
Fluorene	100	97.1		ug/L		97	70 - 120
Hexachloro-1,3-butadiene	100	85.0		ug/L		85	38 - 120
Hexachlorobenzene	100	88.7		ug/L		89	8 - 142
Hexachlorocyclopentadiene	100	87.8		ug/L		88	46 - 135
Hexachloroethane	100	76.2		ug/L		76	55 - 120
Indeno[1,2,3-cd]pyrene	100	95.2		ug/L		95	1 - 151
Isophorone	100	96.2		ug/L		96	47 - 180
Naphthalene	100	87.9		ug/L		88	36 - 120
Nitrobenzene	100	97.3		ug/L		97	54 - 158
N-Nitrosodimethylamine	100	66.6		ug/L		67	38 - 120
N-Nitrosodi-n-propylamine	100	91.5		ug/L		92	14 - 198
N-Nitrosodiphenylamine	100	109		ug/L		109	79 - 127
Pentachlorophenol	100	69.4		ug/L		69	38 - 152
Phenanthrene	100	90.2		ug/L		90	65 - 120
Phenol	100	45.6		ug/L		46	17 - 120
Pyrene	100	97.4		ug/L		97	70 - 120
Pyridine	100	67.7		ug/L		68	27 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*91*		*33 - 139*
2-Fluorobiphenyl (Surr)	*84*		*33 - 126*
2-Fluorophenol (Surr)	*65*		*12 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-616825/2-A
Matrix: Water
Analysis Batch: 618111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616825

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*96*		*36 - 120*
Phenol-d6 (Surr)	*42*		*10 - 120*
p-Terphenyl-d14 (Surr)	*97*		*47 - 131*

Lab Sample ID: LCSD 570-616825/3-A
Matrix: Water
Analysis Batch: 618111

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 616825

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	91.2		ug/L		91	57 - 130	0	30
1,2-Dichlorobenzene	100	80.4		ug/L		80	50 - 120	1	20
1,2-Diphenylhydrazine(as Azobenzene)	100	85.9		ug/L		86	57 - 120	0	20
1,3-Dichlorobenzene	100	79.3		ug/L		79	46 - 120	1	20
1,4-Dichlorobenzene	100	80.0		ug/L		80	47 - 120	1	20
1-Methylnaphthalene	100	92.3		ug/L		92	63 - 120	2	20
2,4,5-Trichlorophenol	100	89.2		ug/L		89	62 - 120	2	20
2,4,6-Trichlorophenol	100	97.7		ug/L		98	52 - 129	1	35
2,4-Dichlorophenol	100	98.7		ug/L		99	53 - 122	1	30
2,4-Dimethylphenol	100	93.9		ug/L		94	42 - 120	4	35
2,4-Dinitrophenol	100	97.7		ug/L		98	1 - 173	1	79
2,4-Dinitrotoluene	100	92.2		ug/L		92	48 - 127	1	25
2,6-Dichlorophenol	100	95.9		ug/L		96	64 - 120	2	20
2,6-Dinitrotoluene	100	96.7		ug/L		97	68 - 137	4	29
2-Chloronaphthalene	100	89.9		ug/L		90	65 - 120	0	15
2-Chlorophenol	100	93.8		ug/L		94	36 - 120	1	37
2-Methylnaphthalene	100	90.5		ug/L		90	60 - 120	0	20
2-Methylphenol	100	80.4		ug/L		80	55 - 120	3	20
2-Nitroaniline	100	103		ug/L		103	53 - 120	2	20
2-Nitrophenol	100	98.2		ug/L		98	45 - 167	1	33
3,3'-Dichlorobenzidine	100	86.5		ug/L		86	8 - 213	2	65
3/4-Methylphenol	200	147		ug/L		74	41 - 120	3	20
3-Nitroaniline	100	95.1		ug/L		95	62 - 120	1	20
4,6-Dinitro-2-methylphenol	100	93.1		ug/L		93	53 - 130	4	122
4-Bromophenyl phenyl ether	100	90.6		ug/L		91	65 - 120	0	26
4-Chloro-3-methylphenol	100	92.2		ug/L		92	41 - 128	3	44
4-Chloroaniline	100	91.7		ug/L		92	53 - 120	6	20
4-Chlorophenyl phenyl ether	100	91.4		ug/L		91	38 - 145	3	36
4-Nitroaniline	100	102		ug/L		102	61 - 120	3	20
4-Nitrophenol	100	30.2		ug/L		30	13 - 129	6	79
Acenaphthene	100	89.9		ug/L		90	60 - 132	0	29
Acenaphthylene	100	92.2		ug/L		92	54 - 126	2	45
Acetophenone	100	89.7		ug/L		90	45 - 120	3	20
Alpha-Terpineol	100	83.8		ug/L		84	60 - 140	3	30
Aniline	100	82.7		ug/L		83	50 - 120	4	20
Anthracene	100	89.5		ug/L		89	43 - 120	0	40
Azobenzene	100	85.9		ug/L		86	57 - 120	0	20
Benzidine	100	30.9	J	ug/L		31	20 - 143	19	30
Benzo[a]anthracene	100	96.9		ug/L		97	42 - 133	1	32

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-616825/3-A
Matrix: Water
Analysis Batch: 618111

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 616825

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[a]pyrene			100	99.5		ug/L		100	32 - 148	4	43
Benzo[b]fluoranthene			100	100		ug/L		100	42 - 140	3	43
Benzo[g,h,i]perylene			100	99.7		ug/L		100	1 - 195	1	61
Benzo[k]fluoranthene			100	96.8		ug/L		97	25 - 146	4	38
Benzoic acid			100	42.7	J *1	ug/L		43	20 - 120	21	20
Benzyl alcohol			100	88.3		ug/L		88	47 - 120	3	20
Bis (2-chloroethoxy) methane			100	94.9		ug/L		95	49 - 165	1	32
bis (2-chloroisopropyl) ether			100	95.4		ug/L		95	63 - 139	1	46
Bis(2-chloroethyl)ether			100	99.4		ug/L		99	43 - 126	6	65
Bis(2-ethylhexyl) phthalate			100	99.7		ug/L		100	29 - 137	3	50
Butyl benzyl phthalate			100	100		ug/L		100	1 - 140	1	36
Chrysene			100	94.4		ug/L		94	44 - 140	0	53
Dibenz(a,h)anthracene			100	98.2		ug/L		98	1 - 200	4	75
Dibenzofuran			100	96.8		ug/L		97	61 - 120	1	20
Diethyl phthalate			100	99.7		ug/L		100	1 - 120	3	60
Dimethyl phthalate			100	97.4		ug/L		97	1 - 120	1	110
Di-n-butyl phthalate			100	100		ug/L		100	8 - 120	1	28
Di-n-octyl phthalate			100	95.7		ug/L		96	19 - 132	2	42
Fluoranthene			100	91.2		ug/L		91	43 - 121	0	40
Fluorene			100	95.4		ug/L		95	70 - 120	2	23
Hexachloro-1,3-butadiene			100	86.3		ug/L		86	38 - 120	2	38
Hexachlorobenzene			100	91.0		ug/L		91	8 - 142	3	33
Hexachlorocyclopentadiene			100	91.9		ug/L		92	46 - 135	5	20
Hexachloroethane			100	76.8		ug/L		77	55 - 120	1	32
Indeno[1,2,3-cd]pyrene			100	99.2		ug/L		99	1 - 151	4	60
Isophorone			100	95.8		ug/L		96	47 - 180	0	56
Naphthalene			100	87.9		ug/L		88	36 - 120	0	39
Nitrobenzene			100	95.5		ug/L		95	54 - 158	2	37
N-Nitrosodimethylamine			100	66.4		ug/L		66	38 - 120	0	20
N-Nitrosodi-n-propylamine			100	89.5		ug/L		89	14 - 198	2	52
N-Nitrosodiphenylamine			100	114		ug/L		114	79 - 127	4	20
Pentachlorophenol			100	68.0		ug/L		68	38 - 152	2	52
Phenanthrene			100	91.3		ug/L		91	65 - 120	1	24
Phenol			100	45.4		ug/L		45	17 - 120	0	39
Pyrene			100	97.7		ug/L		98	70 - 120	0	30
Pyridine			100	65.9		ug/L		66	27 - 120	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*90*		*33 - 139*
2-Fluorobiphenyl (Surr)	*85*		*33 - 126*
2-Fluorophenol (Surr)	*64*		*12 - 120*
Nitrobenzene-d5 (Surr)	*95*		*36 - 120*
Phenol-d6 (Surr)	*42*		*10 - 120*
p-Terphenyl-d14 (Surr)	*97*		*47 - 131*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 410-692044/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 692246 — **Prep Batch: 692044**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		08/28/25 15:42	08/29/25 07:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*67*		*30 - 187*	*08/28/25 15:42*	*08/29/25 07:55*	*1*
Benzo(a)pyrene-d12 (Surr)	*70*		*32 - 194*	*08/28/25 15:42*	*08/29/25 07:55*	*1*
1-Methylnaphthalene-d10	*57*		*45 - 130*	*08/28/25 15:42*	*08/29/25 07:55*	*1*

Lab Sample ID: LCS 410-692044/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 692246 — **Prep Batch: 692044**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			1.00	0.330		ug/L		33	18 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*60*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*65*		*32 - 194*
1-Methylnaphthalene-d10	*51*		*45 - 130*

Lab Sample ID: LCSD 410-692044/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 692246 — **Prep Batch: 692044**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			1.00	0.400		ug/L		40	18 - 130	19	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*65*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*74*		*32 - 194*
1-Methylnaphthalene-d10	*53*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-620020/34 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 620020

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50		ug/L			09/02/25 23:36	1
Gasoline Range Organics (C4-C12)	ND		50		ug/L			09/02/25 23:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*20 - 144*		*09/02/25 23:36*	*1*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 570-620020/32
Matrix: Water
Analysis Batch: 620020

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			2000	1760		ug/L		88	71 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*20 - 144*

Lab Sample ID: LCSD 570-620020/33
Matrix: Water
Analysis Batch: 620020

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2000	1690		ug/L		84	71 - 120	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*20 - 144*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-633971/1-A
Matrix: Water
Analysis Batch: 635598

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 633971

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.010		ug/L		10/01/25 10:55	10/04/25 19:46	1
4,4'-DDE	ND		0.0050		ug/L		10/01/25 10:55	10/04/25 19:46	1
4,4'-DDT	ND		0.0050		ug/L		10/01/25 10:55	10/04/25 19:46	1
Aldrin	ND		0.0050		ug/L		10/01/25 10:55	10/04/25 19:46	1
alpha-BHC	ND		0.0020		ug/L		10/01/25 10:55	10/04/25 19:46	1
alpha-Chlordane	ND		0.050		ug/L		10/01/25 10:55	10/04/25 19:46	1
beta-BHC	ND		0.0075		ug/L		10/01/25 10:55	10/04/25 19:46	1
Chlordane	ND		0.050		ug/L		10/01/25 10:55	10/04/25 19:46	1
delta-BHC	ND		0.0050		ug/L		10/01/25 10:55	10/04/25 19:46	1
Dieldrin	ND		0.0050		ug/L		10/01/25 10:55	10/04/25 19:46	1
Endosulfan I	ND		0.0020		ug/L		10/01/25 10:55	10/04/25 19:46	1
Endosulfan II	ND		0.010		ug/L		10/01/25 10:55	10/04/25 19:46	1
Endosulfan sulfate	ND		0.0050		ug/L		10/01/25 10:55	10/04/25 19:46	1
Endrin	ND		0.0050		ug/L		10/01/25 10:55	10/04/25 19:46	1
Endrin aldehyde	ND		0.050		ug/L		10/01/25 10:55	10/04/25 19:46	1
Endrin ketone	ND		0.0050		ug/L		10/01/25 10:55	10/04/25 19:46	1
gamma-BHC (Lindane)	ND		0.0020		ug/L		10/01/25 10:55	10/04/25 19:46	1
gamma-Chlordane	ND		0.015		ug/L		10/01/25 10:55	10/04/25 19:46	1
Heptachlor	ND		0.0020		ug/L		10/01/25 10:55	10/04/25 19:46	1
Heptachlor epoxide	ND		0.010		ug/L		10/01/25 10:55	10/04/25 19:46	1
Methoxychlor	ND		0.010		ug/L		10/01/25 10:55	10/04/25 19:46	1
Toxaphene	ND		0.10		ug/L		10/01/25 10:55	10/04/25 19:46	1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 570-633971/1-A
Matrix: Water
Analysis Batch: 635598

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 633971

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	96		20 - 154	10/01/25 10:55	10/04/25 19:46	1
Tetrachloro-m-xylene (Surr)	83		20 - 139	10/01/25 10:55	10/04/25 19:46	1

Lab Sample ID: LCS 570-633971/2-A
Matrix: Water
Analysis Batch: 635598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 633971

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0500	0.0557		ug/L		111	31 - 141
4,4'-DDE	0.0500	0.0553		ug/L		111	30 - 145
4,4'-DDT	0.0500	0.0492		ug/L		98	25 - 160
Aldrin	0.0500	0.0485		ug/L		97	42 - 140
alpha-BHC	0.0500	0.0498		ug/L		100	37 - 140
alpha-Chlordane	0.0500	0.0538		ug/L		108	45 - 140
beta-BHC	0.0500	0.0525		ug/L		105	17 - 147
delta-BHC	0.0500	0.0319		ug/L		64	19 - 140
Dieldrin	0.0500	0.0566		ug/L		113	36 - 146
Endosulfan I	0.0500	0.0554		ug/L		111	45 - 153
Endosulfan II	0.0500	0.0529		ug/L		106	1 - 202
Endosulfan sulfate	0.0500	0.0493		ug/L		99	26 - 144
Endrin	0.0500	0.0557		ug/L		111	30 - 147
Endrin aldehyde	0.0500	0.0439	J	ug/L		88	50 - 135
Endrin ketone	0.0500	0.0482		ug/L		96	60 - 140
gamma-BHC (Lindane)	0.0500	0.0513		ug/L		103	32 - 140
gamma-Chlordane	0.0500	0.0515		ug/L		103	45 - 140
Heptachlor	0.0500	0.0475		ug/L		95	34 - 140
Heptachlor epoxide	0.0500	0.0540		ug/L		108	37 - 142
Methoxychlor	0.0500	0.0491		ug/L		98	50 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	126		20 - 154
Tetrachloro-m-xylene (Surr)	109		20 - 139

Lab Sample ID: LCSD 570-633971/3-A
Matrix: Water
Analysis Batch: 635598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 633971

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	0.0500	0.0432		ug/L		86	31 - 141	25	39
4,4'-DDE	0.0500	0.0435		ug/L		87	30 - 145	24	35
4,4'-DDT	0.0500	0.0391		ug/L		78	25 - 160	23	42
Aldrin	0.0500	0.0380		ug/L		76	42 - 140	24	35
alpha-BHC	0.0500	0.0384		ug/L		77	37 - 140	26	36
alpha-Chlordane	0.0500	0.0414	J	ug/L		83	45 - 140	26	35
beta-BHC	0.0500	0.0403		ug/L		81	17 - 147	26	44
delta-BHC	0.0500	0.0244		ug/L		49	19 - 140	27	52
Dieldrin	0.0500	0.0442		ug/L		88	36 - 146	25	49
Endosulfan I	0.0500	0.0427		ug/L		85	45 - 153	26	28

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 570-633971/3-A
Matrix: Water
Analysis Batch: 635598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 633971

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Endosulfan II	0.0500	0.0422		ug/L		84	1 - 202	23	53
Endosulfan sulfate	0.0500	0.0397		ug/L		79	26 - 144	22	38
Endrin	0.0500	0.0434		ug/L		87	30 - 147	25	48
Endrin aldehyde	0.0500	ND	*1	ug/L		65	50 - 135	30	25
Endrin ketone	0.0500	0.0383		ug/L		77	60 - 140	23	30
gamma-BHC (Lindane)	0.0500	0.0397		ug/L		79	32 - 140	26	39
gamma-Chlordane	0.0500	0.0403		ug/L		81	45 - 140	24	35
Heptachlor	0.0500	0.0379		ug/L		76	34 - 140	23	43
Heptachlor epoxide	0.0500	0.0417		ug/L		83	37 - 142	26	26
Methoxychlor	0.0500	0.0392		ug/L		78	50 - 135	22	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*106*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*91*		*20 - 139*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-633971/1-A
Matrix: Water
Analysis Batch: 634694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 633971

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.10	ug/L		10/01/25 10:55	10/02/25 23:50	1
Aroclor-1221	ND		0.10	ug/L		10/01/25 10:55	10/02/25 23:50	1
Aroclor-1232	ND		0.10	ug/L		10/01/25 10:55	10/02/25 23:50	1
Aroclor-1242	ND		0.10	ug/L		10/01/25 10:55	10/02/25 23:50	1
Aroclor-1248	ND		0.10	ug/L		10/01/25 10:55	10/02/25 23:50	1
Aroclor-1254	ND		0.10	ug/L		10/01/25 10:55	10/02/25 23:50	1
Aroclor-1260	ND		0.10	ug/L		10/01/25 10:55	10/02/25 23:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*63*		*20 - 154*	*10/01/25 10:55*	*10/02/25 23:50*	*1*
Tetrachloro-m-xylene (Surr)	*66*		*20 - 139*	*10/01/25 10:55*	*10/02/25 23:50*	*1*

Lab Sample ID: LCS 570-633971/4-A
Matrix: Water
Analysis Batch: 634694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 633971

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor-1016	0.200	0.127		ug/L		63	50 - 140
Aroclor-1260	0.200	0.0934	J	ug/L		47	8 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*39*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*46*		*20 - 139*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCSD 570-633971/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 634694 — **Prep Batch: 633971**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor-1016			0.200	0.143		ug/L		72	50 - 140	12	36
Aroclor-1260			0.200	0.128		ug/L		64	8 - 140	31	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*56*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*53*		*20 - 139*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-692230/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 692793 — **Prep Batch: 692230**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L		08/28/25 23:37	08/30/25 09:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*129*		*46 - 136*	*08/28/25 23:37*	*08/30/25 09:53*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*112*		*46 - 136*	*08/28/25 23:37*	*08/30/25 09:53*	*1*

Lab Sample ID: LCS 410-692230/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 692793 — **Prep Batch: 692230**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene Dibromide			0.129	0.150		ug/L		116	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*134*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*115*		*46 - 136*

Lab Sample ID: LCSD 410-692230/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 692793 — **Prep Batch: 692230**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide			0.129	0.151		ug/L		117	60 - 140	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*129*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*114*		*46 - 136*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-618349/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 628296 — **Prep Batch: 618349**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250		ug/L		08/28/25 14:09	09/20/25 00:45	1
Diesel Range Organics [C10-C28]	ND		50		ug/L		08/28/25 14:09	09/20/25 00:45	1
C24-C44	ND		250		ug/L		08/28/25 14:09	09/20/25 00:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*96*		*53 - 151*	*08/28/25 14:09*	*09/20/25 00:45*	*1*

Lab Sample ID: LCS 570-618349/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 628296 — **Prep Batch: 618349**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			4000	3950		ug/L		99	65 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*91*		*53 - 151*

Lab Sample ID: LCS 570-618349/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 628296 — **Prep Batch: 618349**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Crude Oil (C7-C44)			4000	4110		ug/L		103	43 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*96*		*53 - 151*

Lab Sample ID: LCSD 570-618349/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 628296 — **Prep Batch: 618349**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			4000	4120		ug/L		103	65 - 129	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*93*		*53 - 151*

Lab Sample ID: LCSD 570-618349/6-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 628296 — **Prep Batch: 618349**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Crude Oil (C7-C44)			4000	3620		ug/L		91	43 - 131	12	30

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 570-618349/6-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 628296 — **Prep Batch: 618349**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	90		53 - 151

Method: 8015C - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 410-694636/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 694564 — **Prep Batch: 694636**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13	mg/L		09/04/25 11:56	09/04/25 13:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Butanediol	68		10 - 130	09/04/25 11:56	09/04/25 13:43	1

Lab Sample ID: LCS 410-694636/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 694564 — **Prep Batch: 694636**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylene glycol	99.6	112		mg/L		112	75 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Butanediol	108		10 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-618010/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 618010

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10	mg/L			08/28/25 06:25	1
Chloride	ND		1.0	mg/L			08/28/25 06:25	1
Fluoride	ND		0.10	mg/L			08/28/25 06:25	1
Sulfate	ND		1.0	mg/L			08/28/25 06:25	1

Lab Sample ID: LCS 570-618010/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 618010

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	4.93		mg/L		99	90 - 110
Chloride	50.0	49.1		mg/L		98	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	47.7		mg/L		95	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 570-618010/7 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 618010

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide			5.00	4.94		mg/L		99	90 - 110	0	15
Chloride			50.0	49.2		mg/L		98	90 - 110	0	15
Fluoride			2.50	2.58		mg/L		103	90 - 110	1	15
Sulfate			50.0	47.8		mg/L		96	90 - 110	0	15

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-9795/13 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9795

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			09/23/25 19:11	1

Lab Sample ID: MB 350-9795/14 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9795

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			09/23/25 19:15	1

Lab Sample ID: MB 350-9795/15 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9795

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			09/23/25 19:19	1

Lab Sample ID: LCS 350-9795/16 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9795

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			5.00	4.71		ng/L		94	77 - 123		

Lab Sample ID: LCSD 350-9795/17 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9795

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			5.00	4.60		ng/L		92	77 - 123	2	24

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-9751/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9776 — **Prep Batch: 9751**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		6.0		ug/L		09/22/25 13:05	09/22/25 20:25	1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-9751/1-A
Matrix: Water
Analysis Batch: 9776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9751

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		09/22/25 13:05	09/22/25 20:25	1
Barium	ND		0.50		ug/L		09/22/25 13:05	09/22/25 20:25	1
Cadmium	ND		0.020		ug/L		09/22/25 13:05	09/22/25 20:25	1
Chromium	ND		1.0		ug/L		09/22/25 13:05	09/22/25 20:25	1
Copper	ND		0.50		ug/L		09/22/25 13:05	09/22/25 20:25	1
Iron	ND		5.0		ug/L		09/22/25 13:05	09/22/25 20:25	1
Lead	ND		0.050		ug/L		09/22/25 13:05	09/22/25 20:25	1
Manganese	ND		0.050		ug/L		09/22/25 13:05	09/22/25 20:25	1
Selenium	ND		0.70		ug/L		09/22/25 13:05	09/22/25 20:25	1
Silver	ND		1.0		ug/L		09/22/25 13:05	09/22/25 20:25	1
Vanadium	ND		1.0		ug/L		09/22/25 13:05	09/22/25 20:25	1
Zinc	ND		1.0		ug/L		09/22/25 13:05	09/22/25 20:25	1

Lab Sample ID: LCS 350-9751/2-A
Matrix: Water
Analysis Batch: 9776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9751

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum			125	130		ug/L		104	70 - 130		
Arsenic			12.5	12.3		ug/L		98	70 - 130		
Barium			12.5	11.7		ug/L		94	70 - 130		
Cadmium			1.25	1.24		ug/L		99	70 - 130		
Chromium			12.5	12.5		ug/L		100	70 - 130		
Copper			12.5	12.6		ug/L		101	70 - 130		
Iron			62.5	62.6		ug/L		100	70 - 130		
Lead			2.50	2.42		ug/L		97	70 - 130		
Manganese			12.5	13.3		ug/L		106	70 - 130		
Selenium			12.5	12.0		ug/L		96	70 - 130		
Silver			6.25	5.73		ug/L		92	70 - 130		
Vanadium			12.5	13.1		ug/L		105	70 - 130		
Zinc			12.5	14.9		ug/L		119	70 - 130		

Lab Sample ID: LCSD 350-9751/3-A
Matrix: Water
Analysis Batch: 9776

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 9751

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum			125	126		ug/L		101	70 - 130	3	20
Arsenic			12.5	12.2		ug/L		98	70 - 130	1	20
Barium			12.5	12.3		ug/L		98	70 - 130	5	20
Cadmium			1.25	1.22		ug/L		98	70 - 130	1	20
Chromium			12.5	12.6		ug/L		100	70 - 130	0	20
Copper			12.5	12.6		ug/L		101	70 - 130	0	20
Iron			62.5	60.6		ug/L		97	70 - 130	3	20
Lead			2.50	2.45		ug/L		98	70 - 130	1	20
Manganese			12.5	12.7		ug/L		101	70 - 130	5	20
Selenium			12.5	11.7		ug/L		93	70 - 130	3	20
Silver			6.25	6.16		ug/L		99	70 - 130	7	20
Vanadium			12.5	12.9		ug/L		103	70 - 130	2	20

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCSD 350-9751/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9776 — **Prep Batch: 9751**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Zinc			12.5	12.5		ug/L		100	70 - 130	17	20

Lab Sample ID: 380-167582-1 MS — **Client Sample ID: Well 13 120hr**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9776 — **Prep Batch: 9751**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum	ND	F1	125	183		ug/L		144	50 - 150		
Arsenic	ND		12.5	17.2		ug/L		137	50 - 150		
Cadmium	0.035		1.25	1.31		ug/L		102	50 - 150		
Chromium	1.1		12.5	15.3		ug/L		114	50 - 150		
Copper	ND		12.5	14.0		ug/L		112	50 - 150		
Iron	5.0		62.5	75.0		ug/L		112	50 - 150		
Lead	ND		2.50	2.49		ug/L		98	50 - 150		
Manganese	0.80	^2	12.5	14.9		ug/L		113	50 - 150		
Selenium	ND		12.5	15.7		ug/L		125	50 - 150		
Silver	ND		6.25	5.62		ug/L		90	50 - 150		
Vanadium	2.3		12.5	15.7		ug/L		108	50 - 150		
Zinc	9.3		12.5	24.2		ug/L		120	50 - 150		

Lab Sample ID: 380-167582-1 MS — **Client Sample ID: Well 13 120hr**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9776 — **Prep Batch: 9751**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Barium	41	E F1	12.5	44.2	F1	ug/L		28	50 - 150		

Lab Sample ID: 380-167582-1 MSD — **Client Sample ID: Well 13 120hr**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9776 — **Prep Batch: 9751**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	ND	F1	125	204	F1	ug/L		161	50 - 150	11	20
Arsenic	ND		12.5	16.6		ug/L		133	50 - 150	3	20
Cadmium	0.035		1.25	1.37		ug/L		107	50 - 150	5	20
Chromium	1.1		12.5	15.4		ug/L		114	50 - 150	1	20
Copper	ND		12.5	14.9		ug/L		119	50 - 150	6	20
Iron	5.0		62.5	79.4		ug/L		119	50 - 150	6	20
Lead	ND		2.50	2.45		ug/L		97	50 - 150	2	20
Manganese	0.80	^2	12.5	15.6		ug/L		118	50 - 150	4	20
Selenium	ND		12.5	15.3		ug/L		122	50 - 150	3	20
Silver	ND		6.25	5.64		ug/L		90	50 - 150	0	20
Vanadium	2.3		12.5	16.6		ug/L		115	50 - 150	6	20
Zinc	9.3		12.5	24.7		ug/L		124	50 - 150	2	20

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 380-167582-1 MSD — **Client Sample ID: Well 13 120hr**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9776 — **Prep Batch: 9751**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	31		12.5	45.2		ug/L		114	50 - 150	2	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 570-617127/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 617817 — **Prep Batch: 617127**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		2.0		mg/L		08/26/25 14:36	08/27/25 14:06	1
Iron	ND		0.50		mg/L		08/26/25 14:36	08/27/25 14:06	1
Lithium	ND		0.050		mg/L		08/26/25 14:36	08/27/25 14:06	1
Magnesium	ND		0.50		mg/L		08/26/25 14:36	08/27/25 14:06	1
Potassium	ND		2.0		mg/L		08/26/25 14:36	08/27/25 14:06	1
Sodium	ND		2.0		mg/L		08/26/25 14:36	08/27/25 14:06	1
Strontium	ND		0.010		mg/L		08/26/25 14:36	08/27/25 14:06	1
SiO2	ND		0.54		mg/L		08/26/25 14:36	08/27/25 14:06	1

Lab Sample ID: LCS 570-617127/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 617817 — **Prep Batch: 617127**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium			2.50	2.53		mg/L		101	80 - 120		
Iron			0.500	0.511		mg/L		102	80 - 120		
Lithium			0.500	0.484		mg/L		97	80 - 120		
Magnesium			2.50	2.54		mg/L		102	80 - 120		
Potassium			5.00	4.95		mg/L		99	80 - 120		
Sodium			5.00	4.97		mg/L		99	80 - 120		
Strontium			0.500	0.496		mg/L		99	80 - 120		
SiO2			5.38	5.21		mg/L		97	80 - 120		

Lab Sample ID: LCSD 570-617127/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 617817 — **Prep Batch: 617127**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium			2.50	2.49		mg/L		100	80 - 120	2	20
Iron			0.500	0.645	*+ *1	mg/L		129	80 - 120	23	20
Lithium			0.500	0.479		mg/L		96	80 - 120	1	20
Magnesium			2.50	2.51		mg/L		100	80 - 120	1	20
Potassium			5.00	4.89		mg/L		98	80 - 120	1	20
Sodium			5.00	4.88		mg/L		98	80 - 120	2	20
Strontium			0.500	0.487		mg/L		97	80 - 120	2	20
SiO2			5.38	5.21		mg/L		97	80 - 120	0	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 380-167582-1 MS — **Client Sample ID: Well 13 120hr**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 617817 — **Prep Batch: 617127**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	400		2.50	404	4	mg/L		30	77 - 113
Iron	ND	*+ *1	0.500	ND		mg/L		NC	65 - 149
Lithium	ND	F1	0.500	0.801	F1	mg/L		160	73 - 145
Magnesium	1300		2.50	1280	4	mg/L		-28	56 - 140
Potassium	400		5.00	408	4	mg/L		110	83 - 131
Strontium	7.8		0.500	8.26	4	mg/L		99	81 - 123
SiO2	28		5.38	33.7	4	mg/L		99	24 - 180

Lab Sample ID: 380-167582-1 MS — **Client Sample ID: Well 13 120hr**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 621017 — **Prep Batch: 617127**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	10000		5.00	9980	4	mg/L		-85	73 - 127

Lab Sample ID: 380-167582-1 MSD — **Client Sample ID: Well 13 120hr**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 617817 — **Prep Batch: 617127**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	400		2.50	404	4	mg/L		21	77 - 113	0	11
Iron	ND	*+ *1	0.500	ND		mg/L		NC	65 - 149	NC	21
Lithium	ND	F1	0.500	0.826	F1	mg/L		165	73 - 145	3	16
Magnesium	1300		2.50	1280	4	mg/L		109	56 - 140	0	11
Potassium	400		5.00	410	4	mg/L		145	83 - 131	0	7
Strontium	7.8		0.500	8.27	4	mg/L		101	81 - 123	0	6
SiO2	28		5.38	33.7	4	mg/L		99	24 - 180	0	15

Lab Sample ID: 380-167582-1 MSD — **Client Sample ID: Well 13 120hr**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 621017 — **Prep Batch: 617127**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	10000		5.00	10000	4	mg/L		1045	73 - 127	1	9

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-616887/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 617692 — **Prep Batch: 616887**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L		08/26/25 09:19	08/27/25 11:36	1

Lab Sample ID: LCS 570-616887/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 617692 — **Prep Batch: 616887**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium			80.0	83.8		ug/L		105	80 - 120

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: LCSD 570-616887/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 617692 — **Prep Batch: 616887**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium			80.0	82.9		ug/L		104	80 - 120	1	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-616196/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619292 — **Prep Batch: 616196**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0		mg/L		08/25/25 08:16	08/30/25 15:44	1

Lab Sample ID: LCS 570-616196/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619292 — **Prep Batch: 616196**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
HEM: Oil and Grease			40.0	32.00		mg/L		80	78 - 114		

Lab Sample ID: LCSD 570-616196/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619292 — **Prep Batch: 616196**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease			40.0	34.50		mg/L		86	78 - 114	8	18

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-625793/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 625935 — **Prep Batch: 625793**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		09/15/25 14:32	09/15/25 21:20	1

Lab Sample ID: LCS 570-625793/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 625935 — **Prep Batch: 625793**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Kjeldahl Nitrogen			5.00	5.23		mg/L		105	90 - 110		

Lab Sample ID: LCSD 570-625793/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 625935 — **Prep Batch: 625793**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen			5.00	5.10		mg/L		102	90 - 110	3	20

Method: 410.4 - COD

Lab Sample ID: MB 570-623719/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 623837 — **Prep Batch: 623719**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10	mg/L		09/10/25 15:20	09/10/25 18:19	1

Lab Sample ID: LCS 570-623719/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 623837 — **Prep Batch: 623719**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	50.0	47.9		mg/L		96	90 - 110

Lab Sample ID: LCSD 570-623719/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 623837 — **Prep Batch: 623719**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	50.0	51.5		mg/L		103	90 - 110	7	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 570-620933/75 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 620933

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		5.0	mg/L			09/04/25 03:27	1
Bicarbonate (as CaCO3)	ND		5.0	mg/L			09/04/25 03:27	1
Carbonate (as CaCO3)	ND		5.0	mg/L			09/04/25 03:27	1
Hydroxide (as CaCO3)	ND		5.0	mg/L			09/04/25 03:27	1

Lab Sample ID: LCS 570-620933/73 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 620933

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total (As CaCO3)	106	96.9		mg/L		91	78 - 110

Lab Sample ID: LCSD 570-620933/74 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 620933

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	106	96.2		mg/L		91	78 - 110	1	10

Method: SM 2520B - Salinity

Lab Sample ID: LCS 570-617865/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 617865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Salinity	35.0	35.6		psu		102	95 - 105

Method: SM 2520B - Salinity (Continued)

Lab Sample ID: LCSD 570-617865/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 617865

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Salinity			35.0	35.7		psu		102	95 - 105	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-618516/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 618516

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			08/28/25 19:59	1

Lab Sample ID: LCS 570-618516/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 618516

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	984		mg/L		98	85 - 110		

Lab Sample ID: LCSD 570-618516/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 618516

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	964		mg/L		96	85 - 110	2	10

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-734189/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 734595 — **Prep Batch: 734189**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	0.4296	U	0.569	0.571	4.00	0.932	pCi/L	08/29/25 07:01	09/03/25 21:41	1

Lab Sample ID: LCSB 160-734189/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 734595 — **Prep Batch: 734189**

Analyte			Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Beta			69.3	66.57		7.19	4.00	0.822	pCi/L	96	75 - 125		

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-734017/1-A
Matrix: Water
Analysis Batch: 735576

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 734017

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07472	U	0.195	0.196	1.00	0.217	pCi/L	08/28/25 08:10	09/11/25 09:53	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.2*		*30 - 110*	*08/28/25 08:10*	*09/11/25 09:53*	*1*

Lab Sample ID: LCS 160-734017/2-A
Matrix: Water
Analysis Batch: 735576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734017

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.57	9.489		1.18	1.00	0.178	pCi/L	99	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.9*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-734018/1-A
Matrix: Water
Analysis Batch: 735473

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 734018

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2018	U	0.475	0.476	1.00	0.833	pCi/L	08/28/25 08:15	09/10/25 13:04	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.2*		*30 - 110*	*08/28/25 08:15*	*09/10/25 13:04*	*1*
Y Carrier	*89.3*		*30 - 110*	*08/28/25 08:15*	*09/10/25 13:04*	*1*

Lab Sample ID: LCS 160-734018/2-A
Matrix: Water
Analysis Batch: 735473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734018

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.08	9.840		1.48	1.00	0.763	pCi/L	108	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.9*		*30 - 110*
Y Carrier	*83.7*		*30 - 110*

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-734895/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 736094 — **Prep Batch: 734895**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.1979	U	0.188	0.189	3.00	0.304	pCi/L	09/05/25 08:56	09/15/25 14:17	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*83.4*		*30 - 110*	*09/05/25 08:56*	*09/15/25 14:17*	*1*
Y Carrier	*93.5*		*30 - 110*	*09/05/25 08:56*	*09/15/25 14:17*	*1*

Lab Sample ID: LCS 160-734895/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 736094 — **Prep Batch: 734895**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Strontium-90			6.92	6.502		0.736	3.00	0.337	pCi/L	94	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*82.1*		*30 - 110*
Y Carrier	*91.6*		*30 - 110*

Lab Sample ID: LCSD 160-734895/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 736056 — **Prep Batch: 734895**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Strontium-90			6.92	5.307		0.641	3.00	0.320	pCi/L	77	75 - 125	20	25

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Sr Carrier	*83.9*		*30 - 110*
Y Carrier	*92.3*		*30 - 110*

Method: SM7110C - Gross Alpha by Co-Precipitation

Lab Sample ID: MB 160-734898/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 735314 — **Prep Batch: 734898**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.4846	U	0.573	0.576	3.00	0.938	pCi/L	09/05/25 09:05	09/09/25 07:13	1

Lab Sample ID: LCS 160-734898/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 735314 — **Prep Batch: 734898**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Alpha			41.0	34.01		4.73	3.00	0.802	pCi/L	83	80 - 120		

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

GC/MS VOA

Analysis Batch: 615835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	624.1	
MB 570-615835/6	Method Blank	Total/NA	Water	624.1	
LCS 570-615835/1003	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-615835/4	Lab Control Sample Dup	Total/NA	Water	624.1	

Analysis Batch: 616175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1 - RA	Well 13 120hr	Total/NA	Water	624.1	
MB 570-616175/5	Method Blank	Total/NA	Water	624.1	
LCS 570-616175/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-616175/3	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 616825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	625.1	
MB 570-616825/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-616825/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-616825/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 618111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	625.1	616825
MB 570-616825/1-A	Method Blank	Total/NA	Water	625.1	616825
LCS 570-616825/2-A	Lab Control Sample	Total/NA	Water	625.1	616825
LCSD 570-616825/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	616825

Prep Batch: 692044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	625.1	
MB 410-692044/1-A	Method Blank	Total/NA	Water	625.1	
LCS 410-692044/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 410-692044/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 692246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	625.1 SIM	692044
MB 410-692044/1-A	Method Blank	Total/NA	Water	625.1 SIM	692044
LCS 410-692044/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	692044
LCSD 410-692044/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	692044

GC VOA

Analysis Batch: 620020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	8015B	
MB 570-620020/34	Method Blank	Total/NA	Water	8015B	
LCS 570-620020/32	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-620020/33	Lab Control Sample Dup	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 618349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	3510C	
MB 570-618349/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-618349/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 570-618349/5-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-618349/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 570-618349/6-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 628296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	8015B	618349
MB 570-618349/1-A	Method Blank	Total/NA	Water	8015B	618349
LCS 570-618349/2-A	Lab Control Sample	Total/NA	Water	8015B	618349
LCS 570-618349/5-A	Lab Control Sample	Total/NA	Water	8015B	618349
LCSD 570-618349/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	618349
LCSD 570-618349/6-A	Lab Control Sample Dup	Total/NA	Water	8015B	618349

Prep Batch: 633971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	608	
MB 570-633971/1-A	Method Blank	Total/NA	Water	608	
LCS 570-633971/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 570-633971/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-633971/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 570-633971/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 634694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	608.3	633971
MB 570-633971/1-A	Method Blank	Total/NA	Water	608.3	633971
LCS 570-633971/4-A	Lab Control Sample	Total/NA	Water	608.3	633971
LCSD 570-633971/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	633971

Analysis Batch: 635598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	608.3	633971
MB 570-633971/1-A	Method Blank	Total/NA	Water	608.3	633971
LCS 570-633971/2-A	Lab Control Sample	Total/NA	Water	608.3	633971
LCSD 570-633971/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	633971

Prep Batch: 692230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	8011	
MB 410-692230/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-692230/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-692230/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 692793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	8011	692230
MB 410-692230/1-A	Method Blank	Total/NA	Water	8011	692230
LCS 410-692230/2-A	Lab Control Sample	Total/NA	Water	8011	692230

GC Semi VOA (Continued)

Analysis Batch: 692793 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-692230/3-A	Lab Control Sample Dup	Total/NA	Water	8011	692230

Analysis Batch: 694564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	8015C	694636
MB 410-694636/1-A	Method Blank	Total/NA	Water	8015C	694636
LCS 410-694636/2-A	Lab Control Sample	Total/NA	Water	8015C	694636

Prep Batch: 694636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	8015 DAI Prep	
MB 410-694636/1-A	Method Blank	Total/NA	Water	8015 DAI Prep	
LCS 410-694636/2-A	Lab Control Sample	Total/NA	Water	8015 DAI Prep	

HPLC/IC

Analysis Batch: 618010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	300.0	
380-167582-1 - DL	Well 13 120hr	Total/NA	Water	300.0	
MB 570-618010/5	Method Blank	Total/NA	Water	300.0	
LCS 570-618010/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-618010/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 9751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	1640	
MB 350-9751/1-A	Method Blank	Total/NA	Water	1640	
LCS 350-9751/2-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-9751/3-A	Lab Control Sample Dup	Total/NA	Water	1640	
380-167582-1 MS	Well 13 120hr	Total/NA	Water	1640	
380-167582-1 MSD	Well 13 120hr	Total/NA	Water	1640	

Analysis Batch: 9776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	1640	9751
380-167582-1	Well 13 120hr	Total/NA	Water	1640	9751
MB 350-9751/1-A	Method Blank	Total/NA	Water	1640	9751
LCS 350-9751/2-A	Lab Control Sample	Total/NA	Water	1640	9751
LCSD 350-9751/3-A	Lab Control Sample Dup	Total/NA	Water	1640	9751
380-167582-1 MS	Well 13 120hr	Total/NA	Water	1640	9751
380-167582-1 MS	Well 13 120hr	Total/NA	Water	1640	9751
380-167582-1 MSD	Well 13 120hr	Total/NA	Water	1640	9751
380-167582-1 MSD	Well 13 120hr	Total/NA	Water	1640	9751

Analysis Batch: 9795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	1631E	
MB 350-9795/13	Method Blank	Total/NA	Water	1631E	
MB 350-9795/14	Method Blank	Total/NA	Water	1631E	

Metals (Continued)

Analysis Batch: 9795 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-9795/15	Method Blank	Total/NA	Water	1631E	
LCS 350-9795/16	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-9795/17	Lab Control Sample Dup	Total/NA	Water	1631E	

Prep Batch: 616887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total Recoverable	Water	3005A	
MB 570-616887/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 570-616887/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 570-616887/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Prep Batch: 617127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total Recoverable	Water	3005A	
MB 570-617127/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 570-617127/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 570-617127/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
380-167582-1 MS	Well 13 120hr	Total Recoverable	Water	3005A	
380-167582-1 MSD	Well 13 120hr	Total Recoverable	Water	3005A	

Analysis Batch: 617692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-616887/1-A	Method Blank	Total Recoverable	Water	6020	616887
LCS 570-616887/2-A	Lab Control Sample	Total Recoverable	Water	6020	616887
LCSD 570-616887/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020	616887

Analysis Batch: 617757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total Recoverable	Water	6020	616887

Analysis Batch: 617817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total Recoverable	Water	6010D	617127
MB 570-617127/1-A	Method Blank	Total Recoverable	Water	6010D	617127
LCS 570-617127/2-A	Lab Control Sample	Total Recoverable	Water	6010D	617127
LCSD 570-617127/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	617127
380-167582-1 MS	Well 13 120hr	Total Recoverable	Water	6010D	617127
380-167582-1 MSD	Well 13 120hr	Total Recoverable	Water	6010D	617127

Analysis Batch: 621017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total Recoverable	Water	6010D	617127
380-167582-1 MS	Well 13 120hr	Total Recoverable	Water	6010D	617127
380-167582-1 MSD	Well 13 120hr	Total Recoverable	Water	6010D	617127

General Chemistry

Prep Batch: 616196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	1664A	
MB 570-616196/1-A	Method Blank	Total/NA	Water	1664A	

General Chemistry (Continued)

Prep Batch: 616196 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-616196/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-616196/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 617865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	SM 2520B	
LCS 570-617865/3	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 570-617865/4	Lab Control Sample Dup	Total/NA	Water	SM 2520B	

Analysis Batch: 618516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	SM 2540C	
MB 570-618516/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-618516/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-618516/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Analysis Batch: 619292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	1664A	616196
MB 570-616196/1-A	Method Blank	Total/NA	Water	1664A	616196
LCS 570-616196/2-A	Lab Control Sample	Total/NA	Water	1664A	616196
LCSD 570-616196/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	616196

Analysis Batch: 620933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	SM 2320B	
MB 570-620933/75	Method Blank	Total/NA	Water	SM 2320B	
LCS 570-620933/73	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 570-620933/74	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Prep Batch: 623719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	410.4	
MB 570-623719/3-A	Method Blank	Total/NA	Water	410.4	
LCS 570-623719/4-A	Lab Control Sample	Total/NA	Water	410.4	
LCSD 570-623719/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 623837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	410.4	623719
MB 570-623719/3-A	Method Blank	Total/NA	Water	410.4	623719
LCS 570-623719/4-A	Lab Control Sample	Total/NA	Water	410.4	623719
LCSD 570-623719/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	623719

Prep Batch: 625793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	351.2	
MB 570-625793/3-A	Method Blank	Total/NA	Water	351.2	
LCS 570-625793/4-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-625793/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

General Chemistry

Analysis Batch: 625935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	351.2	625793
MB 570-625793/3-A	Method Blank	Total/NA	Water	351.2	625793
LCS 570-625793/4-A	Lab Control Sample	Total/NA	Water	351.2	625793
LCSD 570-625793/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	625793

Rad

Prep Batch: 734017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	PrecSep-21	
MB 160-734017/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-734017/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 734018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	PrecSep_0	
MB 160-734018/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-734018/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 734189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	Evaporation	
MB 160-734189/1-A	Method Blank	Total/NA	Water	Evaporation	
LCSB 160-734189/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

Prep Batch: 734895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	PrecSep-7	
MB 160-734895/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-734895/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	
LCSD 160-734895/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-7	

Prep Batch: 734898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-167582-1	Well 13 120hr	Total/NA	Water	Coprecipitation	
MB 160-734898/1-A	Method Blank	Total/NA	Water	Coprecipitation	
LCS 160-734898/2-A	Lab Control Sample	Total/NA	Water	Coprecipitation	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Client Sample ID: Well 13 120hr

Date Collected: 08/21/25 09:30
Date Received: 08/22/25 10:01

Lab Sample ID: 380-167582-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1	RA	1	616175	AH8S	EET CAL 4	08/25/25 14:30
Total/NA	Analysis	624.1		1	615835	VYF4	EET CAL 4	08/23/25 11:57
Total/NA	Prep	625.1			616825	OAJ3	EET CAL 4	08/26/25 08:23
Total/NA	Analysis	625.1		1	618111	AX7Z	EET CAL 4	08/28/25 11:40
Total/NA	Prep	625.1			692044	L2FU	ELLE	08/28/25 15:42
Total/NA	Analysis	625.1 SIM		1	692246	UJM0	ELLE	08/29/25 08:17
Total/NA	Analysis	8015B		1	620020	YD9V	EET CAL 4	09/03/25 05:21
Total/NA	Prep	608			633971	H1SH	EET CAL 4	10/01/25 10:55
Total/NA	Analysis	608.3		1	635598	N5Y3	EET CAL 4	10/04/25 20:01
Total/NA	Prep	608			633971	H1SH	EET CAL 4	10/01/25 10:55
Total/NA	Analysis	608.3		1	634694	SP9M	EET CAL 4	10/02/25 23:30
Total/NA	Prep	8011			692230	USL7	ELLE	08/28/25 23:37
Total/NA	Analysis	8011		1	692793	URS0	ELLE	08/30/25 12:09
Total/NA	Prep	3510C			618349	TVD6	EET CAL 4	08/28/25 14:12
Total/NA	Analysis	8015B		1	628296	H6FE	EET CAL 4	09/20/25 03:15
Total/NA	Prep	8015 DAI Prep			694636	WZ6J	ELLE	09/04/25 11:56
Total/NA	Analysis	8015C		100	694564	LXF2	ELLE	09/04/25 14:55
Total/NA	Analysis	300.0		40	618010	UIP1	EET CAL 4	08/28/25 10:14
Total/NA	Analysis	300.0	DL	500	618010	UIP1	EET CAL 4	08/28/25 12:28
Total/NA	Analysis	1631E		1	9795	CL	EET SSM	09/23/25 21:11
Total/NA	Prep	1640			9751	V1R	EET SSM	09/22/25 13:05
Total/NA	Analysis	1640		1	9776	COW	EET SSM	09/22/25 23:28
Total/NA	Prep	1640			9751	V1R	EET SSM	09/22/25 13:05
Total/NA	Analysis	1640		10	9776	COW	EET SSM	09/23/25 11:01
Total Recoverable	Prep	3005A			617127	F4JD	EET CAL 4	08/26/25 14:36
Total Recoverable	Analysis	6010D		5	617817	VZ0K	EET CAL 4	08/27/25 14:29
Total Recoverable	Prep	3005A			617127	F4JD	EET CAL 4	08/26/25 14:36
Total Recoverable	Analysis	6010D		25	621017	K1UV	EET CAL 4	09/04/25 13:02
Total Recoverable	Prep	3005A			616887	F4JD	EET CAL 4	08/26/25 15:02
Total Recoverable	Analysis	6020		20	617757	P1R	EET CAL 4	08/27/25 13:52
Total/NA	Prep	1664A			616196	S7HP	EET CAL 4	08/25/25 08:17
Total/NA	Analysis	1664A		1	619292	LM3A	EET CAL 4	08/30/25 15:44
Total/NA	Prep	351.2			625793	ZL7L	EET CAL 4	09/15/25 14:32
Total/NA	Analysis	351.2		1	625935	ZL7L	EET CAL 4	09/15/25 21:45
Total/NA	Prep	410.4			623719	UAPD	EET CAL 4	09/10/25 15:20
Total/NA	Analysis	410.4		1	623837	UAPD	EET CAL 4	09/10/25 18:19
Total/NA	Analysis	SM 2320B		1	620933	LNW3	EET CAL 4	09/04/25 03:59
Total/NA	Analysis	SM 2520B		1	617865	GG0B	EET CAL 4	08/27/25 18:00
Total/NA	Analysis	SM 2540C		1	618516	ZL7L	EET CAL 4	08/28/25 19:59
Total/NA	Prep	Evaporation			734189	OGC	EET SL	08/29/25 07:01
Total/NA	Analysis	900.0		1	734595	SWS	EET SL	09/03/25 21:41
Total/NA	Prep	PrecSep-21			734017	JTR	EET SL	08/28/25 08:10
Total/NA	Analysis	903.0		1	735576	SWS	EET SL	09/11/25 09:54

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Client Sample ID: Well 13 120hr

Date Collected: 08/21/25 09:30
Date Received: 08/22/25 10:01

Lab Sample ID: 380-167582-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			734018	JTR	EET SL	08/28/25 08:15
Total/NA	Analysis	904.0		1	735472	SWS	EET SL	09/10/25 09:55
Total/NA	Prep	PrecSep-7			734895	JTR	EET SL	09/05/25 08:56
Total/NA	Analysis	905		1	736056	SWS	EET SL	09/15/25 14:14
Total/NA	Analysis	Ra226_Ra228 Pos		1	736599	SCB	EET SL	09/18/25 17:26
Total/NA	Prep	Coprecipitation			734898	OGC	EET SL	09/05/25 09:05
Total/NA	Analysis	SM7110C		1	735314	FLC	EET SL	09/09/25 07:12

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	09-16-25
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-26
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	09-15-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA011	06-30-26
New York	NELAP	10670	09-09-25
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	12-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-26
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-27-25
Virginia	NELAP	460182	09-14-25
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	09-08-25
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-07-26
Florida	NELAP	E87575	06-30-26
Louisiana (All)	NELAP	03073	07-01-26
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-26
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167	07-08-26
US Fish & Wildlife	US Federal Programs	A20571	06-30-26
USDA	US Federal Programs	525-23-4-22573	01-24-28
Washington	State	C788	07-13-26
Wisconsin	State	399133460	08-31-26

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	07-01-26
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	10-01-26
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	12-31-25
Oregon	NELAP	4157	09-01-26
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	10-05-25
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-31-26
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	ELLE
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
608.3	Organochlorine Pesticides in Water	EPA	EET CAL 4
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CAL 4
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
8015C	Glycols- Direct Injection (GC/FID)	SW846	ELLE
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1640	Metals (ICPMS)	EPA	EET SSM
6010D	Metals (ICP)	SW846	EET CAL 4
6020	Metals (ICP/MS)	SW846	EET CAL 4
1664A	HEM and SGT-HEM	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
410.4	COD	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EET CAL 4
SM 2520B	Salinity	SM	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
Pos			
SM7110C	Gross Alpha by Co-Precipitation	SM	EET SL
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
410.4	COD	EPA	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	ELLE
8011	Microextraction	SW846	ELLE
8015 DAI Prep	Preparation, Direct Aqueous Injection	SW846	ELLE
Coprecipitation	Preparation, Coprecipitation	None	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Method	Method Description	Protocol	Laboratory

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-167582-1
SDG: Well 13 120hr

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-167582-1	Well 13 120hr	Water	08/21/25 09:30	08/22/25 10:01	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808.284.3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808.284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300, SM2520B, SM4500_SiO2: Br, Cl, F, SO4, Si, Salinity, Alkalinity	351.2- Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900.0 - Gross Beta Only	903.0 Ra226, 905_Sr90	904.0 - Radium-228	Ra226_228GFPC_P - Local Method	1640 - dissolved Metals (16): Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Ag, V, Zn	1631E - Dissolved Mercury, Total	6010D - Dissolved Metals (6): Ca, Fe, Li, Mg, K, Na, Sr	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	S	S	S	D	D	D	D	N	D	A	D		
Well 13 120 hr	8/21/25	0930	G	Saltwater	N		2	1	1	3	1	1	2	1	0	1	1	1		One sample packed in 2 coolers

380-167582 COC

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested. I, II, III, IV, Other (specify)

Special Instructions/QC Requirements. FedEx: 3423 8928 5371

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Eva Kim	8/21/25 1300	INTERA Inc	Mark Urrutia	8/22/25 1001	HAP

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: (631A) 1.4+0.0= 1.4 ice-frozen

Ver 01/16/2019

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284.3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808.284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	625.1 SVOCs, 608.3 Organochlorine Pesticides, PCBs	8015B/8260D_Hawaii GRO C4-12	8015B_Hawaii DRO C8-24, CRO C24-44	1664A Oil and Grease	Extra volume- Please hold	625.1 Sim 1,4-dioxane	8011 Ethylene Dibromide	6020- Uranium	8015C Ethylene Glycol		Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	A	N	A	N	S	D	N	A	N	N			
Well 13 120 hr	8/21/25	0930	G	Saltwater	N		1	3	3	2	2	1	1	2	2	1	2			One sample packed in 2 coolers

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Possible Hazard Identification
☐ X *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ X *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time	Method of Shipment: FEDEX Priority Overnight 3923 8928 5382

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Eva Fake	8/21/25 300	INTERA Inc	[illegible]	08/22/25 10:01	ECAP

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: (751A) 1.3°-0.0°=1.3° REAL-FROZEN

Ver 01/16/2019

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-244864.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-167582-1
Address: 5755 8th Street East, ,	Due Date Requested: 9/22/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			Other: N/A
Site: N/A	SSOW#: N/A			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Well 13 120hr (380-167582-1)	8/21/25	09:30 Hawaiian	G	Water			X	X		High TDS sample, dilute accordingly

Therm. ID: SC04 Cust. Seal: (Y) N
Uncorr./Corr. Temp: 0.0 0.1 °C
Delivery: UPS / (FedEx) / Other: ____
Ice Type: Blue / Dry / (Wet) / None
Packing: Δ
Label Ver.: JL

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification 4612 8639 7370 *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: Gail Koo	Date/Time: 8/25/25 8:52	Company	Received by:	Date/Time: 8/26/25 9:30	Company PSLN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-244861.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-167582-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 9/22/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 13 120hr (380-167582-1)	8/21/25	09:30 Hawaiian	G	Water			X	X	X	4	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:	
Relinquished by: GUILLERMO	Date/Time: 8/26/25 938	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time: 8/26/25 1010	Company EUL
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: R: 3.7			C: 2.3

NO

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Loc: 380
167582

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-244515.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-167582-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/22/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	8015B_GRO/5030C(MOD) Gasoline Range Organics	8015B_DRO/3510C_LVIDRO (C10-C28)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	2540C_CalcdTotal Dissolved Solids (TDS)	6010D/3005A(MOD) Custom 6010D Metals List	6020/3005A(MOD) Custom 6020 Metals List	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
Well 13 120hr (380-167582-1)	8/21/25	09:30 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	19	High TDS sample, dilute accordingly

380-167582 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8/22/25 1530	[illegible]	[signature]	8/22/25 1555	EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.3 / 2.3 FR292

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-244515.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-167582-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/22/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28DAnions Full List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Well 13 120hr (380-167582-1)	8/21/25	09:30 Hawaiian	G	Water			X	19	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8/22/25 1555	Company EE
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.3 / 2.3 [illegible]		

Ver: 10/10/2024

eurofins | Environment Testing

Date:	8/26/2025
End Time:	15:27
KI Paper Lot:	14-860
Analyst:	VL
Pipette:	NS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0 2N)	104127
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-167582-K-1	A	Y	5 2	No

eurofins | Environment Testing

Date:	8/26/2025
End Time:	1415
pH Paper Lot:	hc441704
Analyst:	[illegible]
Pipette:	[illegible]

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	na
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-167582-J-1	12	NA	NA	NA	NP

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-167582-1
SDG Number: Well 13 120hr

Login Number: 167582
List Number: 1
Creator: Segura, Ryan

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-167582-1
SDG Number: Well 13 120hr

Login Number: 167582
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 08/22/25 06:32 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-167582-1
SDG Number: Well 13 120hr

Login Number: 167582
List Number: 3
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 08/26/25 11:03 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-167582-1
SDG Number: Well 13 120hr

Login Number: 167582
List Number: 5
Creator: Reddin, Victoria 1

List Source: Eurofins Seattle Specialty Metals
List Creation: 09/22/25 02:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-167582-1
SDG Number: Well 13 120hr

Login Number: 167582
List Number: 4
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 08/26/25 11:33 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Docusign Envelope ID: 9967A92F-8C7E-45D4-B7DC-6A112829A423

ICA Labs Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.icalabs.com

Jordan Moniuszko
INTERA
74 Kihapai St
Kailua, HI 96734
USA

Dear Jordan,

Shipment sent for radiocarbon (^{14}C) dating analysis arrived at ICA Labs on August 27th, 2025. The sample was processed through the 3 main steps required to prepare a sample for AMS analysis: Pretreatment, Combustion or Acid Digestion, and Reduction (Graphitization). Accelerator Mass Spectrometry was used for radiocarbon analysis, and results are provided in this Report.

The radiocarbon results were reported on September 5th without the ^{13}C results. This is the updated report that includes the ^{13}C results.

The first section of the Report includes the results for the sample submitted and for the Quality Control samples analyzed in parallel with the sample. Quality Control results in this report met acceptance criteria. The later part of the Report includes a Summary of Methods that provides some context on protocols used.

The Team at ICA Labs appreciates you for trusting us with your samples. Please reach out if there are any questions.

Sincerely,

Signed by:
Ricky Diaz
8ACC8E1173CD446...

9/26/2025

Docusign Envelope ID: 9967A92F-8C7E-45D4-B7DC-6A112829A423

ICA Labs Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.icalabs.com

^{14}C AMS Report

Submitter Name: Jordan Moniuszko
Company Name: INTERA
Address: 74 Kihapai
Kailua, HI 96734
USA
Date Received: August 27th, 2025
Date Reported: September 5th, 2025 for ^{14}C and September 26th for ^{13}C
Project #: Kalaeloa Desalination

ICA ID	Submitter ID	Material Type	Pretreatment	Δ13C (o/oo)	Conventional Age	Calibrated Age
14C-10349	Well 13 120 Hr	Water	DIC	-20.69	**5640 +/- 40 BP**	**Cal 4590 - 4360 BC**

Quality Control Results

QC #	Quality Control Material	Acceptance Criteria	Measured Value
Wheel QC 1	**IAEA C7**	49.53 +/- 0.70 pMC	49.42 +/- 0.20 pMC
Wheel QC 2	**IAEA C5**	23.05 +/- 0.70 pMC	23.04 +/- 0.10 pMC
All Quality Control Analyses Pass Acceptance Criteria			

- AMS = Accelerator Mass Spectrometry.
- pMC = Percent Modern Carbon.
- IAEA = International Atomic Energy Agency.
- Calibrated ages are attained using IntCal20 or Bomb 21 NH1.
- Unless otherwise stated, the error reported is two sigma standard deviation (95.4%).
- Conventional ages are given in BP (BP=Before Present, 1950 AD) or F14C when samples are post-1950, and have been corrected for natural isotope fractionation.

Docusign Envelope ID: 9967A92F-8C7E-45D4-B7DC-6A112829A423

Summary of Methods

Pretreatment

- **Acid/Alkali/Acid (AAA):** Also known as ABA (Acid/Base/Acid), this pretreatment protocol is applied to most organic material types. A hot hydrochloric acid (HCl) wash is applied to remove any carbonates (if present), and then hot sodium hydroxide (NaOH) washes is performed for removal of secondary humic acids. A final hot HCl wash is applied prior to rinsing the sample solution neutral, then dried to prepare for combustion.
- **Acid Etched (AE):** This pretreatment protocol is applied to most carbonates, such as shells and corals. Material is first rinsed with water and mechanically cleaned to remove any debris if present, then exposed to a dilute HCl wash. The sample solution is then rinsed neutral and dried to prepare for acid digestion.
- **Acid Only (AO):** This pretreatment protocol is typically applied to organic sediments. Sample is mechanically sieved, then a HCl wash is applied to remove any carbonates that may be present. The sample solution is then rinsed neutral and dried to prepare for combustion.
- **Collagen Extraction With Acid/Alkali/Acid (Col-AAA)**: This protocol is applied to bones. The sample surface is cleaned, then the AAA process & extraction the protein component of the bone (collagen) through the removal of the mineral portion of the bone (calcium hydroxyapatite) is performed. The treated collagen extracted is rinsed neutral and dried to prepare for combustion.
- **Carbonate Extraction:** This protocol is typically applied to cremated bones. These bones have been heated to temperatures above 600°C and as a result, the bioapatite forms larger and better structure crystals that are typically not susceptible to contamination over time. After cleaning the external surface of the sample, it is treated with NaClO for 48 hours, then CH_3COOH for 24 hours. The sample is then rinsed neutral and dried to prepare for acid digestion.
- **Dissolved Inorganic Carbon (DIC)**: Strontium Chloride (SrCl) is added to ~250 mL of water under slightly basic conditions. Over time, carbon in the water precipitates as SrCO3. The precipitate is dried and prepared for acid digestion.

Combustion

For each sample, some of it is weighed and placed in quartz tube. The tube containing the sample is subsequently brought to vacuum, then an oxygen source is introduced into the tube. The tube is then sealed and exposed to heat (800ºC) for at least 30 minutes to drive the reaction, which causes the carbon in the sample to be converted to CO_2 gas. The other product in the reaction is H_2O. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Acid Digestion

Carbonate samples go through the acid digestion process after pretreatment. This involves crushing some of the pretreated material, then placing it in a tube that is subsequently evacuated. The acid digestion reaction is then started by adding H_3PO_4 to the sample in the vacuum environment. This reaction releases the carbon in the sample as CO_2 gas. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Reduction (Graphitization)

The evolved CO_2 is distilled through a cold (-78ºC) solid CO_2/C_3H_8O slush to remove water as it is transferred under a vacuum to a reduction reaction vessel via a cryogenic pump using liquid N_2 (-195ºC). The reduction reaction vessel contains Co as the catalyst and $Mg(ClO_4)_2$ as a drying agent. Hydrogen gas is added to the reduction reaction vessel and then heat is introduced (550ºC) to drive the reaction. An unbalanced summary of the 2-step reduction reaction is as follows:

$$CO_2 + H_2 \xrightarrow[550^oC,\ Co]{\blacktriangle} CO + H_2O$$

$$CO + H_2 \xrightarrow[550^oC,\ Co]{\blacktriangle} C_{(graphite)} + H_2O$$

Accelerator Mass Spectrometry (AMS) Analysis

The graphite obtained for each sample is pressed into an aluminum cathode, and then placed into a sample wheel that is loaded into one of the ion sources in the AMS. The sample wheel includes QC samples of known values in addition to unknowns so that accuracy & precision can be verified. Percent Modern Carbon and a Conventional Age is then determined for each sample.

FQ Labs

3170 Ualena Street, Unit A
Honolulu, HI 96819
Phone: 808-839-9444, Fax: 808-839-9744

Intera Incorporated
74 Kihapai Street
Kailua, HI, 96734
Attn:
Project Name: Kalaeloa Desalination

CERTIFICATE OF ANALYSIS

Received: 08/21/2025 @ 12:20 PM
Completed: 08/26/2025 @ 10:03 AM
Project Number: 250821-4007-009
Temperature: 5.3 °C
Client Project No: LSBRG.Kalaelo

Sample ID: 250821-4007-009-01 **Water Sample- Lab # 17 Well 13 120 Hr** **Sampled: 8/21/2025 @ 9:30 AM** **Sampler: Jordan Moniuszko**

Analysis	Results	Units	MDL	Test Method	Analyzed		By
Biochemical Oxygen Demand	<1.0	mg/L	1.0	SM 5210 B	08/21/2025	3:17 PM	EA
Nitrogen, Nitrate	0.099	mg/L	0.008	EPA 353.1, Rev2.0	08/21/2025	1:43 PM	AA
Nitrogen, Nitrite	<0.004	mg/L	0.004	EPA 353.2,Rev2.0	08/21/2025	1:43 PM	AA
Phosphorus, Total	0.139	mg/L	0.003	EPA 365.1, Rev2.0	08/25/2025	1:21 PM	AA
Hexavalent Chromium	<0.001	mg/L	0.001	SM 3500-Cr-B	08/21/2025	12:49 PM	AA

Approved By: Gregg Kawamoto
Wednesday, August 27, 2025

FQLabs
Analysts of Excellence
3170-A Ualena Street • Honolulu, HI 96819 • Tel: (808) 839-9444 • Fax: (808) 839-9744 • fql@fqlab.com
FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

Intera Incorporated
74 Kihapai Street
Kailua, HI 96734
Attn:
Project Name: Kalaeloa Desalination

Received: 8/21/2025
Completed: 8/26/2025
Project Number: 250821-4007-009

Analysis	QC Test	Results	MDL	Units	Spike Level	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
Glucose-Glutamic Acid Check (GGA) 8/21/2025											
BOD	Blank	<1.0	1.00	mg/L	-	-	-	-	-	-	
BOD	GGA	178	1.00	mg/L	198±30.5	-	-	-	-	-	Pass
The results are within the control limit range of 198 ± 30.5											
Nitrate	Blank	<0.008	0.008	mg/L	-	-	-	-	-	-	
Nitrate	LCS	0.51	0.008	mg/L	0.50	-	102	90-110%	-	-	
Nitrate	Duplicate	1.53	0.008	mg/L	-	1.56	-	-	1.55	20%	
Nitrate	Matrix Spike	1.80	0.008	mg/L	1.00	0.78	102	90-110%	-	-	
Nitrite	Blank	<0.004	0.004	mg/L	-	-	-	-	-	-	
Nitrite	LCS	0.52	0.004	mg/L	0.50	-	105	90-110%	-	-	
Nitrite	Duplicate	0.00	0.004	mg/L	-	0.00	-	-	0.00	20%	
Nitrite	Matrix Spike	1.06	0.004	mg/L	1.00	0.00	106	90-110%	-	-	
Chromium VI	Blank	<0.001	0.001	mg/L	-	.	-	-	-	-	
Chromium VI	LCS	1.02	0.001	mg/L	1.00	-	102	85-115%	-	-	
Chromium VI	Duplicate	0.00	0.001	mg/L	-	0.00	-	-		20%	
Chromium VI	Matrix Spike	0.52	0.001	mg/L	0.50	0.00	103	85-115%	-	-	
Batch Prepared and Analyzed 8/25/2025											
Total Phos	Blank	<0.003	0.003	mg/L	-	-	-	-	-	-	
Total Phos	LCS	0.90	0.003	mg/L	1.00	-	90.2	90-110%	-	-	
Total Phos	Duplicate	1.00	0.003	mg/L	-	1.11	-	-	10.4	20%	
Total Phos	Matrix Spike	0.99	0.003	mg/L	0.50	0.50	97.4	90-110%	-	-	

Notes:

B1	Target Analyte detected in method blank was above the method detection limit.
D8	The duplicate exceeded the acceptance limit due to sample matrix effects.
dry	Sample results reported on a dry weight basis.
LCS	Laboratory Control Standard
M8	The matrix spike was below the acceptance limits. See Blank Spike (LFB)
M9	The matrix spike was above the acceptance limits. See Blank Spike (LFB)
MDL	Method Detection Levels are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
ND	Not Detected
NR	Not Reported
R8	The LCS recovery was below the acceptance limits.
R9	The LCS recovery was above the acceptance limits.
REC	Recovery
RPD	Relative Percent Difference

FQLabs

3170-A Ualena Street
Honolulu, HI 96819

Invoice

Date	Invoice #
8/27/2025	34019

Bill To
Intera Incorporated 74 Kihapai St. Kailua, HI 96734 Attn:Jordan Moniuszko

P.O. No.	Terms	Contract #	Lab #
	Due on receipt		17

Description	Qty	Rate	Amount
Project Name: Kalaeloa Disalination Project NO: LSBRG.Kalaelo			
Nitrogen, Nitrate EPA 353.2, Rev2.0**	1	140.00	140.00T
Nitrogen, Nitrite (water)**	1	130.00	130.00T
Phosphate, total	1	73.37	73.37T
BOD-5	1	99.00	99.00T
Hexavalent chromium (CrVI) Dissolved, SM 3500-Cr B**	1	205.00	205.00T
**RUSH Fee for Short Holding Time Sample Received on 08/21/25			

Make Check Payable To:FQLabs

Subtotal	$647.37
Sales Tax (4.712%)	$30.51
Total	$677.88

FQLabs

3170-A Ualena St.
Honolulu, HI 96819
Tel: 808-839-9444 Fax: 808-839-9744 website: www.fqlabs.com

CHAIN OF CUSTODY AND ANALYSIS REQUEST

DATE: _____ PAGE _____ OF _____
CUSTOMER NO. _____ LAB NO. _____

CLIENT NAME: Intera Incorporated EMAIL: jmoniuszko@intera.com

ADDRESS: 74 Kihapai Street Kailua, HI 96734

PROJECT NAME: Kalaeloa Desalination PROJECT NO: LSBRG.Kalaelo P.O. NO:

PROJECT MANAGER: PHONE NO: 808.284.3204 FAX NO:

SAMPLER NAME: (Printed) Jordan Moniuszko (Signature)

TAT (Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N= Normal

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other:

ANALYSES REQUESTED

AIRBILL NO:

COOLER NO:

SAMPLE TEMP: 5.3°C

REMARKS:

SAMPLE CONDITION/ COMMENTS:

LAB USE ONLY SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX		CONTAINER			5210B- BOD-5	353.2 Nitrogen, Nitrate	353.1 Nitrogen, Nitrite	365.1 Total Phosphorus	7196A Hexavalent Chromi			
				WATER	OTHER	#	TYPE	GRAB/ COMP								
17	8/21/25	0930	Well 13 120 Hr	✔		3		G	✔	✔	✔	✔	✔			

Relinquished By: (Signature and Printed Name)	Date:	Time:	Received By: (Signature and Printed Name)	Date:	Time:
Eva Kakowe	8/21/25	1220	[illegible]	8/21/25	1220
Relinquished By: (Signature and Printed Name)	Date:	Time:	Received By: (Signature and Printed Name)	Date:	Time:

Is this a compliance drinking water sample? Yes No

Sign and Print Date: Time:

SPECIAL INSTRUCTIONS:

SAMPLE DISPOSITION:

1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless additional storage time is requested.
3. Storage time requested: _____ days.

By _____ Date _____

Oxygen, Hydrogen isotopic analysis of waters
Instrumentation: Picarro L2130-i High Precision 18O and D Isotopic Wat

	Average		Standard Deviation	
Sample Name	**$\delta^{18}O$ (‰)**	**$\delta^{2}H$ (‰)**	**$\delta^{18}O$**	**$\delta^{2}H$**
Well 14 Step 120Hr 1	***0.2***	***1.9***	***0.03***	***0.21***
Well 14 Step 120Hr 2	***0.3***	***2.6***	***0.07***	***0.25***
Well 13 Step 1	***0.1***	***1.0***	***0.05***	***0.17***
Well 13 Step 2	***0.1***	***1.2***	***0.03***	***0.14***
Well 13 Step DUP 1	***0.1***	***1.2***	***0.03***	***0.09***
Well 13 Step DUP 2	***0.1***	***1.2***	***0.04***	***0.12***
Well 13 120Hr 1	***0.1***	***1.4***	***0.02***	***0.06***
Well 13 120Hr 2	***0.1***	***1.4***	***0.03***	***0.15***

Comments:
Isotopic corrections are calculated using standards prepared by our labo
All samples were analyzed in at least triplicate, and isotopic values are re
The software Chemcorrect was used to flag for organic contamination; a
otherwise noted.

er Analyzer via A0211 High Precision Vaporizer and Picarro A0325 Autosampler

notes

Evian Water as a check standard:

	δ18O	δ2H
Accuracy	**-0.002**	**-0.84**
Precision	**0.05**	**0.43**

ratory and run along with your samples.
eported in δ-notation relative to V-SMOW.
ll samples clear of contamination unless

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 8/21/2025 10:37:19 PM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 13 Step

JOB NUMBER

380-165529-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

Generated
8/21/2025 10:37:19 PM

Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Isotope Dilution Summary 11
QC Sample Results 12
QC Association Summary 18
Lab Chronicle 19
Certification Summary 20
Method Summary 21
Sample Summary 22
Chain of Custody 23
Receipt Checklists 25

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-165529-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 8/12/2025 2:06 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C.

PFAS
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165529-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step — Lab Sample ID: 380-165529-1

No Detections.

Client Sample ID: Well 13 Step MSD — Lab Sample ID: 380-165529-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165529-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 14:06

Lab Sample ID: 380-165529-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.6		ng/L		08/20/25 04:18	08/20/25 15:55	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.6		ng/L		08/20/25 04:18	08/20/25 15:55	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.6		ng/L		08/20/25 04:18	08/20/25 15:55	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.1		ng/L		08/20/25 04:18	08/20/25 15:55	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.1		ng/L		08/20/25 04:18	08/20/25 15:55	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.6		ng/L		08/20/25 04:18	08/20/25 15:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4		ng/L		08/20/25 04:18	08/20/25 15:55	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		9.1		ng/L		08/20/25 04:18	08/20/25 15:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		9.1		ng/L		08/20/25 04:18	08/20/25 15:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorobutanoic acid (PFBA)	ND		3.6		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1

Client Sample ID: Well 13 Step

Lab Sample ID: 380-165529-1
Matrix: Water
Date Collected: 08/11/25 10:00
Date Received: 08/12/25 14:06

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 15:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*104*		*40 - 200*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C2 6:2 FTS	*90.9*		*40 - 200*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C2 8:2 FTS	*85.0*		*40 - 300*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C2 PFDoA	*95.1*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C2 PFTeDA	*96.2*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C3 HFPO-DA	*112*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C3 PFBS	*112*		*40 - 135*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C3 PFHxS	*112*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C4 PFBA	*89.8*		*5 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C4 PFHpA	*103*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C5 PFHxA	*103*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C5 PFPeA	*87.9*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C6 PFDA	*99.8*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C7 PFUnA	*98.0*		*30 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C8 FOSA	*87.4*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C8 PFOA	*103*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C8 PFOS	*107*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
13C9 PFNA	*99.7*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
d3-NMeFOSAA	*87.8*		*40 - 170*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
d3-NMePFOSA	*58.1*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
d5-NEtFOSAA	*89.6*		*25 - 135*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
d5-NEtPFOSA	*56.5*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
d7-N-MeFOSE-M	*77.0*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*
d9-N-EtFOSE-M	*77.4*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:55*	*1*

Client Sample ID: Well 13 Step MSD

Lab Sample ID: 380-165529-2
Matrix: Water
Date Collected: 08/11/25 10:00
Date Received: 08/12/25 14:06

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.6		ng/L		08/20/25 04:18	08/20/25 16:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.6		ng/L		08/20/25 04:18	08/20/25 16:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.6		ng/L		08/20/25 04:18	08/20/25 16:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.0		ng/L		08/20/25 04:18	08/20/25 16:12	1

Client Sample ID: Well 13 Step MSD

Lab Sample ID: 380-165529-2

Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 14:06

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.0		ng/L		08/20/25 04:18	08/20/25 16:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.6		ng/L		08/20/25 04:18	08/20/25 16:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.3		ng/L		08/20/25 04:18	08/20/25 16:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		9.0		ng/L		08/20/25 04:18	08/20/25 16:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		9.0		ng/L		08/20/25 04:18	08/20/25 16:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorobutanoic acid (PFBA)	ND		3.6		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		08/20/25 04:18	08/20/25 16:12	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165529-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step MSD

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 14:06

Lab Sample ID: 380-165529-2

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 4:2 FTS	97.0		40 - 200	08/20/25 04:18	08/20/25 16:12	1
13C2 6:2 FTS	86.0		40 - 200	08/20/25 04:18	08/20/25 16:12	1
13C2 8:2 FTS	75.4		40 - 300	08/20/25 04:18	08/20/25 16:12	1
13C2 PFDoA	90.6		10 - 130	08/20/25 04:18	08/20/25 16:12	1
13C2 PFTeDA	88.0		10 - 130	08/20/25 04:18	08/20/25 16:12	1
13C3 HFPO-DA	110		40 - 130	08/20/25 04:18	08/20/25 16:12	1
13C3 PFBS	106		40 - 135	08/20/25 04:18	08/20/25 16:12	1
13C3 PFHxS	105		40 - 130	08/20/25 04:18	08/20/25 16:12	1
13C4 PFBA	85.8		5 - 130	08/20/25 04:18	08/20/25 16:12	1
13C4 PFHpA	102		40 - 130	08/20/25 04:18	08/20/25 16:12	1
13C5 PFHxA	101		40 - 130	08/20/25 04:18	08/20/25 16:12	1
13C5 PFPeA	92.1		40 - 130	08/20/25 04:18	08/20/25 16:12	1
13C6 PFDA	91.7		40 - 130	08/20/25 04:18	08/20/25 16:12	1
13C7 PFUnA	95.7		30 - 130	08/20/25 04:18	08/20/25 16:12	1
13C8 FOSA	77.4		40 - 130	08/20/25 04:18	08/20/25 16:12	1
13C8 PFOA	97.7		40 - 130	08/20/25 04:18	08/20/25 16:12	1
13C8 PFOS	95.3		40 - 130	08/20/25 04:18	08/20/25 16:12	1
13C9 PFNA	98.3		40 - 130	08/20/25 04:18	08/20/25 16:12	1
d3-NMeFOSAA	77.6		40 - 170	08/20/25 04:18	08/20/25 16:12	1
d3-NMePFOSA	56.1		10 - 130	08/20/25 04:18	08/20/25 16:12	1
d5-NEtFOSAA	83.1		25 - 135	08/20/25 04:18	08/20/25 16:12	1
d5-NEtPFOSA	52.7		10 - 130	08/20/25 04:18	08/20/25 16:12	1
d7-N-MeFOSE-M	75.0		10 - 130	08/20/25 04:18	08/20/25 16:12	1
d9-N-EtFOSE-M	73.9		10 - 130	08/20/25 04:18	08/20/25 16:12	1

Isotope Dilution Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165529-1
SDG: Well 13 Step

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	PFDoA	PFTDA	HFPODA	C3PFBS	C3PFHS
Lab Sample ID	Client Sample ID	(40-200)	(40-200)	(40-300)	(10-130)	(10-130)	(40-130)	(40-135)	(40-130)
380-165529-1	Well 13 Step	104	90.9	85.0	95.1	96.2	112	112	112
380-165529-2	Well 13 Step MSD	97.0	86.0	75.4	90.6	88.0	110	106	105
LCS 320-870765/3-A	Lab Control Sample	95.9	92.8	86.3	84.7	84.8	103	100	107
LLCS 320-870765/2-A	Lab Control Sample	101	94.2	90.0	97.6	90.1	106	109	107
MB 320-870765/1-A	Method Blank	102	89.6	87.5	98.1	97.5	105	96.6	102

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	C4PFHA	13C5PHA	PFPeA	C6PFDA	13C7PUA	PFOSA	C8PFOA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)	(40-130)	(40-130)
380-165529-1	Well 13 Step	89.8	103	103	87.9	99.8	98.0	87.4	103
380-165529-2	Well 13 Step MSD	85.8	102	101	92.1	91.7	95.7	77.4	97.7
LCS 320-870765/3-A	Lab Control Sample	86.9	89.5	96.1	82.7	98.9	93.3	70.7	102
LLCS 320-870765/2-A	Lab Control Sample	86.3	96.4	99.2	84.7	99.0	96.2	76.1	101
MB 320-870765/1-A	Method Blank	81.5	96.5	99.8	81.3	101	98.2	75.6	102

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C8PFOS	C9PFNA	d3NMFOS	d3NMFSA	d5NEFOS	d5NPFSA	NMFM	NEFM
Lab Sample ID	Client Sample ID	(40-130)	(40-130)	(40-170)	(10-130)	(25-135)	(10-130)	(10-130)	(10-130)
380-165529-1	Well 13 Step	107	99.7	87.8	58.1	89.6	56.5	77.0	77.4
380-165529-2	Well 13 Step MSD	95.3	98.3	77.6	56.1	83.1	52.7	75.0	73.9
LCS 320-870765/3-A	Lab Control Sample	103	95.4	84.7	52.6	82.4	51.4	70.9	67.3
LLCS 320-870765/2-A	Lab Control Sample	103	96.6	87.7	53.3	88.6	52.9	73.0	70.5
MB 320-870765/1-A	Method Blank	106	96.7	88.9	53.5	92.9	50.8	74.6	73.8

Surrogate Legend

M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
HFPODA = 13C3 HFPO-DA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
13C5PHA = 13C5 PFHxA
PFPeA = 13C5 PFPeA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
C9PFNA = 13C9 PFNA
d3NMFOS = d3-NMeFOSAA
d3NMFSA = d3-NMePFOSA
d5NEFOS = d5-NEtFOSAA
d5NPFSA = d5-NEtPFOSA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 320-870765/1-A
Matrix: Water
Analysis Batch: 870948

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 870765

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10		ng/L		08/20/25 04:18	08/20/25 15:04	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10		ng/L		08/20/25 04:18	08/20/25 15:04	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5		ng/L		08/20/25 04:18	08/20/25 15:04	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10		ng/L		08/20/25 04:18	08/20/25 15:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10		ng/L		08/20/25 04:18	08/20/25 15:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		08/20/25 04:18	08/20/25 15:04	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 320-870765/1-A
Matrix: Water
Analysis Batch: 870948

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 870765

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorooctanoic acid (PFOA)	ND		2.0	ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	ng/L		08/20/25 04:18	08/20/25 15:04	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	ng/L		08/20/25 04:18	08/20/25 15:04	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*102*		*40 - 200*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C2 6:2 FTS	*89.6*		*40 - 200*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C2 8:2 FTS	*87.5*		*40 - 300*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C2 PFDoA	*98.1*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C2 PFTeDA	*97.5*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C3 HFPO-DA	*105*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C3 PFBS	*96.6*		*40 - 135*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C3 PFHxS	*102*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C4 PFBA	*81.5*		*5 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C4 PFHpA	*96.5*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C5 PFHxA	*99.8*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C5 PFPeA	*81.3*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C6 PFDA	*101*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C7 PFUnA	*98.2*		*30 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C8 FOSA	*75.6*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C8 PFOA	*102*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C8 PFOS	*106*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
13C9 PFNA	*96.7*		*40 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
d3-NMeFOSAA	*88.9*		*40 - 170*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
d3-NMePFOSA	*53.5*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
d5-NEtFOSAA	*92.9*		*25 - 135*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
d5-NEtPFOSA	*50.8*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
d7-N-MeFOSE-M	*74.6*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*
d9-N-EtFOSE-M	*73.8*		*10 - 130*	*08/20/25 04:18*	*08/20/25 15:04*	*1*

Lab Sample ID: LCS 320-870765/3-A
Matrix: Water
Analysis Batch: 870948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 870765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	30.8		ng/L		82	55 - 160
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	85.4		ng/L		111	60 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	81.5		ng/L		109	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	85.0		ng/L		112	65 - 155

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-870765/3-A
Matrix: Water
Analysis Batch: 870948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 870765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	181		ng/L		91	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	187		ng/L		93	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	82.3		ng/L		103	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	37.9		ng/L		100	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	34.0		ng/L		91	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	31.2		ng/L		104	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	44.3		ng/L		111	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	216		ng/L		108	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.8		ng/L		97	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	45.3		ng/L		113	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	214		ng/L		107	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	40.0		ng/L		100	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	31.9		ng/L		80	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	35.9		ng/L		101	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	46.9		ng/L		117	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	44.7		ng/L		112	60 - 150
Perfluorobutanesulfonic acid (PFBS)	35.5	39.1		ng/L		110	60 - 145
Perfluorobutanoic acid (PFBA)	80.0	97.4		ng/L		122	70 - 140
Perfluorodecanesulfonic acid (PFDS)	38.6	33.0		ng/L		86	60 - 145
Perfluorodecanoic acid (PFDA)	40.0	41.5		ng/L		104	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	38.8	31.8		ng/L		82	50 - 145
Perfluorododecanoic acid (PFDoA)	40.0	41.8		ng/L		105	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	38.2	38.1		ng/L		100	70 - 150
Perfluoroheptanoic acid (PFHpA)	40.0	41.7		ng/L		104	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	36.5	35.6		ng/L		98	65 - 145
Perfluorohexanoic acid (PFHxA)	40.0	39.5		ng/L		99	70 - 145
Perfluorononanesulfonic acid (PFNS)	38.5	37.5		ng/L		98	65 - 145
Perfluorononanoic acid (PFNA)	40.0	44.3		ng/L		111	70 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	43.1		ng/L		108	70 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-870765/3-A
Matrix: Water
Analysis Batch: 870948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 870765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	37.2	37.1		ng/L		100	55 - 150
Perfluorooctanoic acid (PFOA)	40.0	40.9		ng/L		102	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	37.6	37.8		ng/L		101	65 - 140
Perfluoropentanoic acid (PFPeA)	40.0	42.7		ng/L		107	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	40.0	44.1		ng/L		110	60 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	43.0		ng/L		107	65 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	40.7		ng/L		102	70 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 4:2 FTS	*95.9*		*40 - 200*
13C2 6:2 FTS	*92.8*		*40 - 200*
13C2 8:2 FTS	*86.3*		*40 - 300*
13C2 PFDoA	*84.7*		*10 - 130*
13C2 PFTeDA	*84.8*		*10 - 130*
13C3 HFPO-DA	*103*		*40 - 130*
13C3 PFBS	*100*		*40 - 135*
13C3 PFHxS	*107*		*40 - 130*
13C4 PFBA	*86.9*		*5 - 130*
13C4 PFHpA	*89.5*		*40 - 130*
13C5 PFHxA	*96.1*		*40 - 130*
13C5 PFPeA	*82.7*		*40 - 130*
13C6 PFDA	*98.9*		*40 - 130*
13C7 PFUnA	*93.3*		*30 - 130*
13C8 FOSA	*70.7*		*40 - 130*
13C8 PFOA	*102*		*40 - 130*
13C8 PFOS	*103*		*40 - 130*
13C9 PFNA	*95.4*		*40 - 130*
d3-NMeFOSAA	*84.7*		*40 - 170*
d3-NMePFOSA	*52.6*		*10 - 130*
d5-NEtFOSAA	*82.4*		*25 - 135*
d5-NEtPFOSA	*51.4*		*10 - 130*
d7-N-MeFOSE-M	*70.9*		*10 - 130*
d9-N-EtFOSE-M	*67.3*		*10 - 130*

Lab Sample ID: LLCS 320-870765/2-A
Matrix: Water
Analysis Batch: 870948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 870765

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	3.30		ng/L		87	55 - 160
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	8.31		ng/L		108	60 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.16		ng/L		95	70 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-870765/2-A
Matrix: Water
Analysis Batch: 870948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 870765

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	8.27		ng/L		109	65 - 155
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	19.1		ng/L		96	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	18.8		ng/L		94	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	8.37		ng/L		105	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.73		ng/L		99	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	3.78		ng/L		101	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	3.02		ng/L		101	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.40		ng/L		110	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	21.1		ng/L		106	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	4.34		ng/L		108	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.76		ng/L		119	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	22.3		ng/L		112	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.46		ng/L		112	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.79		ng/L		95	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.58		ng/L		100	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.72		ng/L		118	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.48		ng/L		112	60 - 150
Perfluorobutanesulfonic acid (PFBS)	3.55	3.86		ng/L		109	60 - 145
Perfluorobutanoic acid (PFBA)	8.00	10.0		ng/L		126	70 - 140
Perfluorodecanesulfonic acid (PFDS)	3.86	3.39		ng/L		88	60 - 145
Perfluorodecanoic acid (PFDA)	4.00	4.58		ng/L		114	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	3.88	3.90		ng/L		101	50 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.34		ng/L		108	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	3.82	4.07		ng/L		107	70 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	4.48		ng/L		112	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.70		ng/L		101	65 - 145
Perfluorohexanoic acid (PFHxA)	4.00	4.43		ng/L		111	70 - 145
Perfluorononanesulfonic acid (PFNS)	3.85	4.11		ng/L		107	65 - 145
Perfluorononanoic acid (PFNA)	4.00	4.55		ng/L		114	70 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-870765/2-A
Matrix: Water
Analysis Batch: 870948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 870765

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonamide (PFOSA)	4.00	4.39		ng/L		110	70 - 145
Perfluorooctanesulfonic acid (PFOS)	3.72	4.23		ng/L		114	55 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.24		ng/L		106	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.87		ng/L		103	65 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.57		ng/L		114	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.51		ng/L		113	60 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.06		ng/L		102	65 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.13		ng/L		103	70 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 4:2 FTS	*101*		*40 - 200*
13C2 6:2 FTS	*94.2*		*40 - 200*
13C2 8:2 FTS	*90.0*		*40 - 300*
13C2 PFDoA	*97.6*		*10 - 130*
13C2 PFTeDA	*90.1*		*10 - 130*
13C3 HFPO-DA	*106*		*40 - 130*
13C3 PFBS	*109*		*40 - 135*
13C3 PFHxS	*107*		*40 - 130*
13C4 PFBA	*86.3*		*5 - 130*
13C4 PFHpA	*96.4*		*40 - 130*
13C5 PFHxA	*99.2*		*40 - 130*
13C5 PFPeA	*84.7*		*40 - 130*
13C6 PFDA	*99.0*		*40 - 130*
13C7 PFUnA	*96.2*		*30 - 130*
13C8 FOSA	*76.1*		*40 - 130*
13C8 PFOA	*101*		*40 - 130*
13C8 PFOS	*103*		*40 - 130*
13C9 PFNA	*96.6*		*40 - 130*
d3-NMeFOSAA	*87.7*		*40 - 170*
d3-NMePFOSA	*53.3*		*10 - 130*
d5-NEtFOSAA	*88.6*		*25 - 135*
d5-NEtPFOSA	*52.9*		*10 - 130*
d7-N-MeFOSE-M	*73.0*		*10 - 130*
d9-N-EtFOSE-M	*70.5*		*10 - 130*

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165529-1
SDG: Well 13 Step

LCMS

Prep Batch: 870765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165529-1	Well 13 Step	Total/NA	Water	1633	
380-165529-2	Well 13 Step MSD	Total/NA	Water	1633	
MB 320-870765/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-870765/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 320-870765/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 870948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165529-1	Well 13 Step	Total/NA	Water	1633	870765
380-165529-2	Well 13 Step MSD	Total/NA	Water	1633	870765
MB 320-870765/1-A	Method Blank	Total/NA	Water	1633	870765
LCS 320-870765/3-A	Lab Control Sample	Total/NA	Water	1633	870765
LLCS 320-870765/2-A	Lab Control Sample	Total/NA	Water	1633	870765

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165529-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step

Lab Sample ID: 380-165529-1
Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 14:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			870765	RMF	EET SAC	08/20/25 04:18
Total/NA	Analysis	1633		1	870948	K1S	EET SAC	08/20/25 15:55

Client Sample ID: Well 13 Step MSD

Lab Sample ID: 380-165529-2
Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 14:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			870765	RMF	EET SAC	08/20/25 04:18
Total/NA	Analysis	1633		1	870948	K1S	EET SAC	08/20/25 16:12

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165529-1
SDG: Well 13 Step

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA00044	06-30-26
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468.03	01-20-27
Arizona	State	AZ0708	08-11-26
Arkansas DEQ	State	88-0691	05-18-26
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-26
Georgia	State	4040	01-29-26
Illinois	NELAP	200060	03-31-26
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-26
Louisiana (All)	NELAP	01944	06-30-26
Maine	State	CA00004	04-14-26
Massachusetts	State	M-CA044	06-30-26
Michigan	State	9947	01-29-26
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	08-31-25
New Jersey	NELAP	CA005	06-30-26
New York	NELAP	11666	04-01-26
Ohio	State	41252	01-29-26
Oregon	NELAP	4040	01-29-26
Texas	NELAP	T104704399-23-17	05-31-26
US Fish & Wildlife	US Federal Programs	A22139	04-30-26
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-26
Virginia	NELAP	460278	03-14-26
Washington	State	C581	05-05-26
West Virginia (DW)	State	9930C	02-01-26
West Virginia DEP	State	422	03-28-26
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165529-1
SDG: Well 13 Step

Method	Method Description	Protocol	Laboratory
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET SAC
1633	Solid-Phase Extraction (SPE)	EPA	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165529-1
SDG: Well 13 Step

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-165529-1	Well 13 Step	Water	08/11/25 10:00	08/12/25 14:06	Hawaii
380-165529-2	Well 13 Step MSD	Water	08/11/25 10:00	08/12/25 14:06	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

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Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284.3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID			Job #: 380-165529 COC
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633 PFAs	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N		
Well 13 Step	8/11/25	12:00	G	Saltwater	N	N	2	2	
Well 13 Step MSD	8/11/25	12:00	G	Saltwater	N	Y	2	2	

4 of 6
3920 1201 2030
3920 1201 2007

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time	Method of Shipment: FEDEX Priority Overnight

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	8/11/25 2:00	INTERA Inc	4401	8/12/25 1022	EOP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 40/A/1.3-0.2=1.1 ICE

Ver: 01/16/2019

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone 626-386-1100

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-240050 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165529-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 9/9/2025			Preservation Codes: -
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final/1633_SPE_125Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Well 13 Step (380-165529-1)	8/11/25	10 00 Hawaiian	G	Water			X	2	
Well 13 Step MSD (380-165529-2)	8/11/25	10 00 Hawaiian	G	Water			X	2	

Note: Since laboratory accreditations are subject to change Eurofins Eaton Analytical, LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Eaton Analytical LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Cuillero V	8.13.25 920			8-14-25 915	
Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company
Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks. 2.6

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165529-1
SDG Number: Well 13 Step

Login Number: 165529
List Number: 1
Creator: Sanchez Velasquez, Gustavo

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165529-1
SDG Number: Well 13 Step

Login Number: 165529
List Number: 2
Creator: Simmons, Jason C

List Source: Eurofins Sacramento
List Creation: 08/14/25 01:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 9/29/2025 9:25:58 PM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 13 Step

JOB NUMBER

380-165553-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 9
Client Sample Results 10
Surrogate Summary 18
Tracer Carrier Summary 21
QC Sample Results 22
QC Association Summary 51
Lab Chronicle 57
Certification Summary 59
Method Summary 62
Sample Summary 64
Chain of Custody 65
Field Data Sheets 77
Receipt Checklists 80

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Rad

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-165553-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 8/12/2025 10:22 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.3°C and 2.5°C.

Receipt Exceptions
The following sample was collected in an improper container: Well 13 Step MSD (380-165553-1). The client was contacted regarding this issue, and the laboratory was instructed to proceed with analysis.

Samples out of preservation hold time

GC/MS VOA
Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-611135. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-614674. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. Well 13 Step MSD (380-165553-1)

Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-614667. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: The following unpreserved vials were received in analyzing laboratory outside of holding time: Well 13 Step MSD (380-165553-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-611616. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 625.1

Method 625.1_SIM_PREC: Received extra clear glass 250ml unpreserved per method.

Well 13 Step MSD (380-165553-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015B_DRO: Received extra clear glass 250ml unpreserved per method.

Well 13 Step MSD (380-165553-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015C_DAI_GLY: The following sample was diluted due to the nature of the sample matrix: Well 13 Step MSD (380-165553-1). Elevated reporting limits (RLs) are provided.

Method 8011: The surrogate recovery for the method blank associated with preparation batch 410-686677 and analytical batch 410-686773 was outside the upper control limits. The method blank was non-detect, therefore the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
Method 608.3_PCB: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-611606.
Method 608.3 Pest/PCB

Method 608.3_PCB: The laboratory control sample duplicate (LCSD) for preparation batch 570-611606 and analytical batch 570-612576 recovered outside control limits for the following analytes: Aroclor-1260. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 608.3_PCB: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-611606 and analytical batch 570-612576 recovered outside control limits for the following analytes: Aroclor-1260.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
Method 608.3_Pest: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-611606.
Method 608.3 Pest/PCB

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: Well 13 Step MSD (380-165553-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 1631E - Dissolved: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 350-9831 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 6020 - Dissolved: The following sample was diluted due to the nature of the sample matrix: Well 13 Step MSD (380-165553-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-612799. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
EPA 1664 A/B

Method 5310C: The following sample was analyzed outside of analytical holding time due to a sample scheduling error: Well 13 Step MSD (380-165553-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 900.0: Gross Alpha Beta Batch 732651

The detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: Well 13 Step MSD (380-165553-1), (880-61539-B-1-A) and (880-61539-B-1-D DU). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium-228 batch 732653
The detection goal was not met for the following sample due to the reduced sample volume in prep attributed to the presence of matrix interferences: Well 13 Step MSD (380-165553-1). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium 228 Batch 732653

The MDC for the following sample(s) is flagged as failing; The laboratory considers the detection goal (requested limit) met when rounding to the appropriate place value. (MB 160-732653/1-A)

Method 905_Sr90: Strontium-90 Prep Batch 160-732130

The Strontium carrier recovery is outside the lower control limit (30%) for the following sample: Well 13 Step MSD (380-165553-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 905_Sr90: Strontium 90 Batch 732130

The Sr Carrier recovery is outside the lower control limit (30%) for the following sample: Well 13 Step MSD (380-165553-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 905_Sr90: Strontium 90 Batch 732130

The detection goal was not met for the following sample due to a reduced sample volume used in prep attributed to the presence of matrix interferences. Well 13 Step MSD (380-165553-1)

Method SM7110C: GAB Prep Batch 160-732656

Insufficient sample volume was available to perform a sample duplicate for the following samples: Well 13 Step MSD (380-165553-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step MSD — Lab Sample ID: 380-165553-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bromide	59		2.0		mg/L	20		300.0	Total/NA
Chloride - DL	20000		400		mg/L	400		300.0	Total/NA
Sulfate - DL	2400		400		mg/L	400		300.0	Total/NA
Mercury	1.1	F1	0.50		ng/L	1		1631E	Dissolved
Cadmium	0.033		0.020		ug/L	1		1640	Dissolved
Copper	5.5		0.50		ug/L	1		1640	Dissolved
Lead	0.077		0.050		ug/L	1		1640	Dissolved
Zinc	24		1.0		ug/L	1		1640	Dissolved
Barium	26		0.50		ug/L	1		1640	Dissolved
Iron	21		5.0		ug/L	1		1640	Dissolved
Manganese	6.0		0.050		ug/L	1		1640	Dissolved
Vanadium	2.1		1.0		ug/L	1		1640	Dissolved
Calcium	420		10		mg/L	5		6010D	Dissolved
Lithium	0.29		0.25		mg/L	5		6010D	Dissolved
Magnesium	1200		2.5		mg/L	5		6010D	Dissolved
Potassium	380		10		mg/L	5		6010D	Dissolved
SiO2	29		2.7		mg/L	5		6010D	Dissolved
Sodium	10000		100		mg/L	50		6010D	Dissolved
Strontium	7.6		0.050		mg/L	5		6010D	Dissolved
Total Kjeldahl Nitrogen	0.23		0.20		mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	28		10		mg/L	1		410.4	Total/NA
Alkalinity, Total (As CaCO3)	53		5.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate (as CaCO3)	53		5.0		mg/L	1		SM 2320B	Total/NA
Salinity	31		2.0		psu	1		SM 2520B	Total/NA
Total Dissolved Solids	37000		1000		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step MSD

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165553-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/14/25 00:09	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/14/25 00:09	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/14/25 00:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			08/14/25 00:09	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/14/25 00:09	1
1,1-Dichloroethane	ND		1.0		ug/L			08/14/25 00:09	1
1,1-Dichloroethene	ND		1.0		ug/L			08/14/25 00:09	1
1,1-Dichloropropene	ND		1.0		ug/L			08/14/25 00:09	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/14/25 00:09	1
1,2,3-Trichloropropane	ND		5.0		ug/L			08/14/25 00:09	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/14/25 00:09	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/14/25 00:09	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/14/25 00:09	1
1,2-Dibromoethane	ND		1.0		ug/L			08/14/25 00:09	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/14/25 00:09	1
1,2-Dichloroethane	ND		0.50		ug/L			08/14/25 00:09	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			08/14/25 00:09	1
1,2-Dichloropropane	ND		1.0		ug/L			08/14/25 00:09	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/14/25 00:09	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/14/25 00:09	1
1,3-Dichloropropane	ND		1.0		ug/L			08/14/25 00:09	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			08/14/25 00:09	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/14/25 00:09	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/14/25 00:09	1
2,2-Dichloropropane	ND		1.0		ug/L			08/14/25 00:09	1
2-Butanone	ND		10		ug/L			08/14/25 00:09	1
2-Chlorotoluene	ND		1.0		ug/L			08/14/25 00:09	1
2-Hexanone	ND		10		ug/L			08/14/25 00:09	1
4-Chlorotoluene	ND		1.0		ug/L			08/14/25 00:09	1
4-Methyl-2-pentanone	ND		10		ug/L			08/14/25 00:09	1
Acetone	ND		12		ug/L			08/14/25 00:09	1
Benzene	ND		0.50		ug/L			08/14/25 00:09	1
Bromobenzene	ND		1.0		ug/L			08/14/25 00:09	1
Bromochloromethane	ND		1.0		ug/L			08/14/25 00:09	1
Bromoform	ND		1.0		ug/L			08/14/25 00:09	1
Bromomethane	ND		5.0		ug/L			08/14/25 00:09	1
Carbon disulfide	ND		10		ug/L			08/14/25 00:09	1
Carbon tetrachloride	ND		0.50		ug/L			08/14/25 00:09	1
Chlorobenzene	ND		1.0		ug/L			08/14/25 00:09	1
Chloroethane	ND		1.0		ug/L			08/14/25 00:09	1
Chloroform	ND		1.0		ug/L			08/14/25 00:09	1
Chloromethane	ND		1.0		ug/L			08/14/25 00:09	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/14/25 00:09	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/14/25 00:09	1
Dibromochloromethane	ND		1.0		ug/L			08/14/25 00:09	1
Dibromomethane	ND		1.0		ug/L			08/14/25 00:09	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/14/25 00:09	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			08/14/25 00:09	1
Ethanol	ND		100		ug/L			08/14/25 00:09	1

Client Sample ID: Well 13 Step MSD

Lab Sample ID: 380-165553-1

Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 10:22

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0		ug/L			08/14/25 00:09	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			08/14/25 00:09	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/14/25 00:09	1
Isopropanol	ND		50		ug/L			08/14/25 00:09	1
Isopropylbenzene	ND		1.0		ug/L			08/14/25 00:09	1
m,p-Xylene	ND		1.0		ug/L			08/14/25 00:09	1
Methylene Chloride	ND		2.0		ug/L			08/14/25 00:09	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/14/25 00:09	1
Naphthalene	ND		10		ug/L			08/14/25 00:09	1
n-Butylbenzene	ND		1.0		ug/L			08/14/25 00:09	1
N-Propylbenzene	ND		1.0		ug/L			08/14/25 00:09	1
o-Xylene	ND		1.0		ug/L			08/14/25 00:09	1
p-Isopropyltoluene	ND		1.0		ug/L			08/14/25 00:09	1
sec-Butylbenzene	ND		1.0		ug/L			08/14/25 00:09	1
Styrene	ND		1.0		ug/L			08/14/25 00:09	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			08/14/25 00:09	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/14/25 00:09	1
tert-Butylbenzene	ND		1.0		ug/L			08/14/25 00:09	1
Tetrachloroethene	ND		1.0		ug/L			08/14/25 00:09	1
Tetrahydrofuran	ND		10		ug/L			08/14/25 00:09	1
Toluene	ND		1.0		ug/L			08/14/25 00:09	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/14/25 00:09	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/14/25 00:09	1
Trichloroethene	ND		1.0		ug/L			08/14/25 00:09	1
Trichlorofluoromethane	ND		5.0		ug/L			08/14/25 00:09	1
Trihalomethanes, Total	ND		1.0		ug/L			08/14/25 00:09	1
Vinyl acetate	ND		10		ug/L			08/14/25 00:09	1
Vinyl chloride	ND		0.50		ug/L			08/14/25 00:09	1
Xylenes, Total	ND		1.0		ug/L			08/14/25 00:09	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*08/14/25 00:09*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*08/14/25 00:09*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*08/14/25 00:09*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*60 - 140*		*08/14/25 00:09*	*1*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*		*08/14/25 00:09*	*1*
Dibromofluoromethane	*107*		*60 - 140*		*08/14/25 00:09*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/14/25 00:09*	*1*

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND	H	2.0		ug/L			08/21/25 12:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*60 - 140*		*08/21/25 12:58*	*1*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*08/21/25 12:58*	*1*
Dibromofluoromethane	*100*		*60 - 140*		*08/21/25 12:58*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*08/21/25 12:58*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step MSD

Lab Sample ID: 380-165553-1

Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 10:22

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) - RA2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND	H	1.0	ug/L			08/21/25 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*60 - 140*		*08/21/25 13:51*	*1*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*08/21/25 13:51*	*1*
Dibromofluoromethane	*116*		*60 - 140*		*08/21/25 13:51*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*08/21/25 13:51*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.29	ug/L		08/18/25 15:45	08/20/25 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*64*		*30 - 187*	*08/18/25 15:45*	*08/20/25 00:43*	*1*
Benzo(a)pyrene-d12 (Surr)	*45*		*32 - 194*	*08/18/25 15:45*	*08/20/25 00:43*	*1*
1-Methylnaphthalene-d10	*61*		*45 - 130*	*08/18/25 15:45*	*08/20/25 00:43*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
1,2-Dichlorobenzene	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
1,3-Dichlorobenzene	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
1,4-Dichlorobenzene	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
1-Methylnaphthalene	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2,4,5-Trichlorophenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2,4,6-Trichlorophenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2,4-Dichlorophenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2,4-Dimethylphenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2,4-Dinitrophenol	ND		50	ug/L		08/14/25 12:40	08/19/25 14:41	1
2,4-Dinitrotoluene	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2,6-Dichlorophenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2,6-Dinitrotoluene	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2-Chloronaphthalene	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2-Chlorophenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2-Methylnaphthalene	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2-Methylphenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2-Nitroaniline	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
2-Nitrophenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
3,3'-Dichlorobenzidine	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
3/4-Methylphenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
3-Nitroaniline	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
4,6-Dinitro-2-methylphenol	ND		50	ug/L		08/14/25 12:40	08/19/25 14:41	1
4-Bromophenyl phenyl ether	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
4-Chloro-3-methylphenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
4-Chloroaniline	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
4-Chlorophenyl phenyl ether	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
4-Nitroaniline	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
4-Nitrophenol	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1
Acenaphthene	ND		10	ug/L		08/14/25 12:40	08/19/25 14:41	1

Client Sample ID: Well 13 Step MSD

Lab Sample ID: 380-165553-1

Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 10:22

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Acetophenone	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Alpha-Terpineol	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Aniline	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Anthracene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Azobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Benzidine	ND		50		ug/L		08/14/25 12:40	08/19/25 14:41	1
Benzo[a]anthracene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Benzo[a]pyrene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Benzo[b]fluoranthene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Benzo[k]fluoranthene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Benzoic acid	ND		50		ug/L		08/14/25 12:40	08/19/25 14:41	1
Benzyl alcohol	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Bis(2-chloroethyl)ether	ND		25		ug/L		08/14/25 12:40	08/19/25 14:41	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Butyl benzyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Carbazole	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Chrysene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Dibenz(a,h)anthracene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Dibenzofuran	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Diethyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Dimethyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Di-n-butyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Di-n-octyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Fluoranthene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Fluorene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Hexachloro-1,3-butadiene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Hexachlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Hexachlorocyclopentadiene	ND		25		ug/L		08/14/25 12:40	08/19/25 14:41	1
Hexachloroethane	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Isophorone	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Naphthalene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
n-Decane	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Nitrobenzene	ND		25		ug/L		08/14/25 12:40	08/19/25 14:41	1
N-Nitrosodimethylamine	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
N-Nitrosodiphenylamine	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
n-Octadecane	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Pentachlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Phenanthrene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Phenol	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Pyrene	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1
Pyridine	ND		10		ug/L		08/14/25 12:40	08/19/25 14:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*08/14/25 12:40*	*08/19/25 14:41*	*1*

Client Sample ID: Well 13 Step MSD

Lab Sample ID: 380-165553-1

Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 10:22

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2,3,4-Trichlorophenol TIC	ND		ug/L			15950-66-0	08/14/25 12:40	08/19/25 14:41	1
2,3,6-Trichlorophenol TIC	ND		ug/L			933-75-5	08/14/25 12:40	08/19/25 14:41	1
2,3,7,8-TCDD TIC	ND		ug/L			1746-01-6	08/14/25 12:40	08/19/25 14:41	1
3,4,5-Trichlorophenol TIC	ND		ug/L			609-19-8	08/14/25 12:40	08/19/25 14:41	1
Phenylacetic Acid TIC	ND		ug/L			103-82-2	08/14/25 12:40	08/19/25 14:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		33 - 139	08/14/25 12:40	08/19/25 14:41	1
2-Fluorobiphenyl (Surr)	79		33 - 126	08/14/25 12:40	08/19/25 14:41	1
2-Fluorophenol (Surr)	57		12 - 120	08/14/25 12:40	08/19/25 14:41	1
Nitrobenzene-d5 (Surr)	84		36 - 120	08/14/25 12:40	08/19/25 14:41	1
Phenol-d6 (Surr)	47		10 - 120	08/14/25 12:40	08/19/25 14:41	1
p-Terphenyl-d14 (Surr)	84		47 - 131	08/14/25 12:40	08/19/25 14:41	1

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			08/23/25 14:17	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			08/23/25 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		20 - 144		08/23/25 14:17	1

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0095	ug/L		08/14/25 12:24	08/21/25 21:24	1
4,4'-DDE	ND		0.0048	ug/L		08/14/25 12:24	08/21/25 21:24	1
4,4'-DDT	ND		0.0048	ug/L		08/14/25 12:24	08/21/25 21:24	1
Aldrin	ND		0.0048	ug/L		08/14/25 12:24	08/21/25 21:24	1
alpha-BHC	ND		0.0019	ug/L		08/14/25 12:24	08/21/25 21:24	1
alpha-Chlordane	ND		0.048	ug/L		08/14/25 12:24	08/21/25 21:24	1
beta-BHC	ND		0.0071	ug/L		08/14/25 12:24	08/21/25 21:24	1
Chlordane	ND		0.048	ug/L		08/14/25 12:24	08/21/25 21:24	1
delta-BHC	ND		0.0048	ug/L		08/14/25 12:24	08/21/25 21:24	1
Dieldrin	ND		0.0048	ug/L		08/14/25 12:24	08/21/25 21:24	1
Endosulfan I	ND		0.0019	ug/L		08/14/25 12:24	08/21/25 21:24	1
Endosulfan II	ND		0.0095	ug/L		08/14/25 12:24	08/21/25 21:24	1
Endosulfan sulfate	ND		0.0048	ug/L		08/14/25 12:24	08/21/25 21:24	1
Endrin	ND		0.0048	ug/L		08/14/25 12:24	08/21/25 21:24	1
Endrin aldehyde	ND		0.048	ug/L		08/14/25 12:24	08/21/25 21:24	1
Endrin ketone	ND		0.0048	ug/L		08/14/25 12:24	08/21/25 21:24	1
gamma-BHC (Lindane)	ND		0.0019	ug/L		08/14/25 12:24	08/21/25 21:24	1
gamma-Chlordane	ND		0.014	ug/L		08/14/25 12:24	08/21/25 21:24	1
Heptachlor	ND		0.0019	ug/L		08/14/25 12:24	08/21/25 21:24	1
Heptachlor epoxide	ND		0.0095	ug/L		08/14/25 12:24	08/21/25 21:24	1
Methoxychlor	ND		0.0095	ug/L		08/14/25 12:24	08/21/25 21:24	1
Toxaphene	ND		0.095	ug/L		08/14/25 12:24	08/21/25 21:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	100		20 - 154	08/14/25 12:24	08/21/25 21:24	1
Tetrachloro-m-xylene (Surr)	74		20 - 139	08/14/25 12:24	08/21/25 21:24	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step MSD

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165553-1

Matrix: Water

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.095	ug/L		08/14/25 12:24	08/16/25 16:00	1
Aroclor-1221	ND		0.095	ug/L		08/14/25 12:24	08/16/25 16:00	1
Aroclor-1232	ND		0.095	ug/L		08/14/25 12:24	08/16/25 16:00	1
Aroclor-1242	ND		0.095	ug/L		08/14/25 12:24	08/16/25 16:00	1
Aroclor-1248	ND		0.095	ug/L		08/14/25 12:24	08/16/25 16:00	1
Aroclor-1254	ND		0.095	ug/L		08/14/25 12:24	08/16/25 16:00	1
Aroclor-1260	ND	*+ *1	0.095	ug/L		08/14/25 12:24	08/16/25 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*120*		*20 - 154*	*08/14/25 12:24*	*08/16/25 16:00*	*1*
Tetrachloro-m-xylene (Surr)	*80*		*20 - 139*	*08/14/25 12:24*	*08/16/25 16:00*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		08/18/25 00:19	08/18/25 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*111*		*46 - 136*	*08/18/25 00:19*	*08/18/25 10:57*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*95*		*46 - 136*	*08/18/25 00:19*	*08/18/25 10:57*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250	ug/L		08/17/25 11:50	08/25/25 10:35	1
Diesel Range Organics [C10-C28]	ND		51	ug/L		08/17/25 11:50	08/25/25 10:35	1
C24-C44	ND		250	ug/L		08/17/25 11:50	08/25/25 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*87*		*53 - 151*	*08/17/25 11:50*	*08/25/25 10:35*	*1*
n-Octacosane (Surr)	*87*		*53 - 151*	*08/17/25 11:50*	*08/25/25 10:35*	*1*

Method: SW846 8015C - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		1300	mg/L		08/24/25 11:58	08/24/25 19:23	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*80*		*10 - 130*	*08/24/25 11:58*	*08/24/25 19:23*	*100*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**59**		2.0	mg/L			08/13/25 17:20	20
Fluoride	ND		2.0	mg/L			08/13/25 17:20	20

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20000**		400	mg/L			08/13/25 17:36	400
Sulfate	**2400**		400	mg/L			08/13/25 17:36	400

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.1**	**F1**	0.50	ng/L			09/24/25 14:41	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step MSD

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165553-1

Matrix: Water

Method: EPA 1640 - Metals (ICPMS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		09/25/25 14:15	09/25/25 14:36	1
Cadmium	**0.033**		0.020		ug/L		09/25/25 14:15	09/25/25 14:36	1
Chromium	ND		1.0		ug/L		09/25/25 14:15	09/25/25 14:36	1
Copper	**5.5**		0.50		ug/L		09/25/25 14:15	09/25/25 14:36	1
Lead	**0.077**		0.050		ug/L		09/25/25 14:15	09/25/25 14:36	1
Silver	ND		1.0		ug/L		09/25/25 14:15	09/25/25 14:36	1
Zinc	**24**		1.0		ug/L		09/25/25 14:15	09/25/25 14:36	1
Aluminum	ND		5.0		ug/L		09/25/25 14:15	09/25/25 14:36	1
Barium	**26**		0.50		ug/L		09/25/25 14:15	09/25/25 14:36	1
Iron	**21**		5.0		ug/L		09/25/25 14:15	09/25/25 14:36	1
Manganese	**6.0**		0.050		ug/L		09/25/25 14:15	09/25/25 14:36	1
Selenium	ND		0.70		ug/L		09/25/25 14:15	09/25/25 14:36	1
Vanadium	**2.1**		1.0		ug/L		09/25/25 14:15	09/25/25 14:36	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**420**		10		mg/L			09/23/25 12:42	5
Iron	ND		2.5		mg/L			09/23/25 12:42	5
Lithium	**0.29**		0.25		mg/L			09/23/25 12:42	5
Magnesium	**1200**		2.5		mg/L			09/23/25 12:42	5
Potassium	**380**		10		mg/L			09/23/25 12:53	5
SiO2	**29**		2.7		mg/L			09/23/25 12:42	5
Sodium	**10000**		100		mg/L			09/23/25 14:02	50
Strontium	**7.6**		0.050		mg/L			09/23/25 12:42	5

Method: SW846 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		20		ug/L			09/23/25 12:23	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		0.96		mg/L		08/17/25 13:26	08/23/25 17:11	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.23**		0.20		mg/L		08/15/25 13:34	08/16/25 12:13	1
Chemical Oxygen Demand (EPA 410.4)	**28**		10		mg/L		08/17/25 08:34	08/17/25 11:54	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**53**		5.0		mg/L			08/20/25 20:28	1
Bicarbonate (as CaCO3) (SM 2320B)	**53**		5.0		mg/L			08/20/25 20:28	1
Carbonate (as CaCO3) (SM 2320B)	ND		5.0		mg/L			08/20/25 20:28	1
Hydroxide (as CaCO3) (SM 2320B)	ND		5.0		mg/L			08/20/25 20:28	1
Salinity (SM 2520B)	**31**		2.0		psu			08/27/25 18:00	1
Total Dissolved Solids (SM 2540C)	**37000**		1000		mg/L			08/15/25 19:34	1
Carbon, Non-Purgable Organic (SM 5310C)	ND	H	0.50		mg/L			09/10/25 01:46	1

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	**397**	**G**	67.1	78.0	4.00	71.4	pCi/L	08/19/25 08:42	08/21/25 21:05	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step MSD

Lab Sample ID: 380-165553-1

Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 10:22

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.106	U	0.305	0.305	1.00	0.578	pCi/L	08/19/25 08:29	09/11/25 18:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.0*		*30 - 110*	*08/19/25 08:29*	*09/11/25 18:49*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.895	U G	0.752	0.757	1.00	1.19	pCi/L	08/19/25 08:46	09/11/25 11:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.0*		*30 - 110*	*08/19/25 08:46*	*09/11/25 11:55*	*1*
Y Carrier	*84.9*		*30 - 110*	*08/19/25 08:46*	*09/11/25 11:55*	*1*

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	9.46	U G	8.69	8.73	3.00	13.9	pCi/L	08/15/25 08:49	08/26/25 14:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*16.2*	*X*	*30 - 110*	*08/15/25 08:49*	*08/26/25 14:48*	*1*
Y Carrier	*83.4*		*30 - 110*	*08/15/25 08:49*	*08/26/25 14:48*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.00	U	0.811	0.816	5.00	1.19	pCi/L		09/11/25 13:58	1

Method: SM7110C - Gross Alpha by Co-Precipitation

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	**2.63**	*	1.05	1.09	3.00	1.26	pCi/L	08/19/25 08:48	08/21/25 21:30	1

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
380-165553-1	Well 13 Step MSD	111	101	107	99
380-165553-1 - RA	Well 13 Step MSD	108	98	100	100
380-165553-1 - RA2	Well 13 Step MSD	111	102	116	100
LCS 570-611135/1002	Lab Control Sample	104	97	101	100
LCS 570-614667/1003	Lab Control Sample	105	100	101	100
LCS 570-614674/1003	Lab Control Sample	108	98	109	98
LCSD 570-611135/3	Lab Control Sample Dup	105	96	103	99
LCSD 570-614667/4	Lab Control Sample Dup	106	99	101	100
LCSD 570-614674/4	Lab Control Sample Dup	106	99	110	99
MB 570-611135/5	Method Blank	106	102	106	97
MB 570-614667/7	Method Blank	103	97	101	99
MB 570-614674/7	Method Blank	105	100	111	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-165553-1	Well 13 Step MSD	89	79	57	84	47	84
LCS 570-611616/2-A	Lab Control Sample	89	79	57	86	40	93
LCSD 570-611616/3-A	Lab Control Sample Dup	85	76	57	84	41	90
MB 570-611616/1-A	Method Blank	91	77	54	85	35	79

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FLN10	BAPd12	MNPd10
Lab Sample ID	Client Sample ID	(30-187)	(32-194)	(45-130)
380-165553-1	Well 13 Step MSD	64	45	61
LCS 410-687067/2-A	Lab Control Sample	58	70	60
LCSD 410-687067/3-A	Lab Control Sample Dup	64	81	65
MB 410-687067/1-A	Method Blank	67	76	64

Surrogate Legend

FLN10 = Fluoranthene-d10 (Surr)
BAPd12 = Benzo(a)pyrene-d12 (Surr)

MNPd10 = 1-Methylnaphthalene-d10

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB1 (20-144)								
380-165553-1	Well 13 Step MSD	114								
LCS 570-615790/3	Lab Control Sample	118								
LCSD 570-615790/4	Lab Control Sample Dup	114								
MB 570-615790/5	Method Blank	115								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)							
380-165553-1	Well 13 Step MSD	100	74							
LCS 570-611606/2-A	Lab Control Sample	99	72							
LCSD 570-611606/3-A	Lab Control Sample Dup	78	66							
MB 570-611606/1-A	Method Blank	117	95							

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	DCB2 (20-154)	TCX2 (20-139)							
380-165553-1	Well 13 Step MSD	120	80							
LCS 570-611606/4-A	Lab Control Sample	99	69							
LCSD 570-611606/5-A	Lab Control Sample Dup	109	73							
MB 570-611606/1-A	Method Blank	103	84							

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)							
380-165553-1	Well 13 Step MSD	111	95							
LCS 410-686677/2-A	Lab Control Sample	102	106							
LCSD 410-686677/3-A	Lab Control Sample Dup	102	106							
MB 410-686677/1-A	Method Blank	191 S1+	198 S1+							

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	OTCSN1 (53-151)	OTCSN1 (53-151)						
380-165553-1	Well 13 Step MSD	87	87						

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015C - Glycols- Direct Injection (GC/FID)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	14BD1 (10-130)							
380-165553-1	Well 13 Step MSD	80							
LCS 410-689808/2-A	Lab Control Sample	116							
MB 410-689808/1-A	Method Blank	95							

Surrogate Legend

14BD = 1,4-Butanediol

Tracer/Carrier Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Ba (30-110)
380-165553-1	Well 13 Step MSD	89.0
LCS 160-732650/2-A	Lab Control Sample	86.6
MB 160-732650/1-A	Method Blank	91.0

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
380-165553-1	Well 13 Step MSD	89.0	84.9
LCS 160-732653/2-A	Lab Control Sample	86.6	81.5
MB 160-732653/1-A	Method Blank	91.0	77.8

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)
380-165553-1	Well 13 Step MSD	16.2 X	83.4
LCS 160-732130/2-A	Lab Control Sample	81.0	91.6
LCSD 160-732130/3-A	Lab Control Sample Dup	74.7	89.7
MB 160-732130/1-A	Method Blank	82.8	87.5

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-611135/5
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/13/25 17:29	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/13/25 17:29	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/13/25 17:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			08/13/25 17:29	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/13/25 17:29	1
1,1-Dichloroethane	ND		1.0		ug/L			08/13/25 17:29	1
1,1-Dichloroethene	ND		1.0		ug/L			08/13/25 17:29	1
1,1-Dichloropropene	ND		1.0		ug/L			08/13/25 17:29	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,2,3-Trichloropropane	ND		5.0		ug/L			08/13/25 17:29	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/13/25 17:29	1
1,2-Dibromoethane	ND		1.0		ug/L			08/13/25 17:29	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,2-Dichloroethane	ND		0.50		ug/L			08/13/25 17:29	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			08/13/25 17:29	1
1,2-Dichloropropane	ND		1.0		ug/L			08/13/25 17:29	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,3-Dichloropropane	ND		1.0		ug/L			08/13/25 17:29	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			08/13/25 17:29	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/13/25 17:29	1
2,2-Dichloropropane	ND		1.0		ug/L			08/13/25 17:29	1
2-Butanone	ND		10		ug/L			08/13/25 17:29	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			08/13/25 17:29	1
2-Chlorotoluene	ND		1.0		ug/L			08/13/25 17:29	1
2-Hexanone	ND		10		ug/L			08/13/25 17:29	1
4-Chlorotoluene	ND		1.0		ug/L			08/13/25 17:29	1
4-Methyl-2-pentanone	ND		10		ug/L			08/13/25 17:29	1
Acetone	ND		12		ug/L			08/13/25 17:29	1
Benzene	ND		0.50		ug/L			08/13/25 17:29	1
Bromobenzene	ND		1.0		ug/L			08/13/25 17:29	1
Bromochloromethane	ND		1.0		ug/L			08/13/25 17:29	1
Bromodichloromethane	ND		1.0		ug/L			08/13/25 17:29	1
Bromoform	ND		1.0		ug/L			08/13/25 17:29	1
Bromomethane	ND		5.0		ug/L			08/13/25 17:29	1
Carbon disulfide	ND		10		ug/L			08/13/25 17:29	1
Carbon tetrachloride	ND		0.50		ug/L			08/13/25 17:29	1
Chlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
Chloroethane	ND		1.0		ug/L			08/13/25 17:29	1
Chloroform	ND		1.0		ug/L			08/13/25 17:29	1
Chloromethane	ND		1.0		ug/L			08/13/25 17:29	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/13/25 17:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/13/25 17:29	1
Dibromochloromethane	ND		1.0		ug/L			08/13/25 17:29	1
Dibromomethane	ND		1.0		ug/L			08/13/25 17:29	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-611135/5
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			08/13/25 17:29	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			08/13/25 17:29	1
Ethanol	ND		100		ug/L			08/13/25 17:29	1
Ethylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			08/13/25 17:29	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/13/25 17:29	1
Isopropanol	ND		50		ug/L			08/13/25 17:29	1
Isopropylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
m,p-Xylene	ND		1.0		ug/L			08/13/25 17:29	1
Methylene Chloride	ND		2.0		ug/L			08/13/25 17:29	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/13/25 17:29	1
Naphthalene	ND		10		ug/L			08/13/25 17:29	1
n-Butylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
N-Propylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
o-Xylene	ND		1.0		ug/L			08/13/25 17:29	1
p-Isopropyltoluene	ND		1.0		ug/L			08/13/25 17:29	1
sec-Butylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
Styrene	ND		1.0		ug/L			08/13/25 17:29	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			08/13/25 17:29	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/13/25 17:29	1
tert-Butylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
Tetrachloroethene	ND		1.0		ug/L			08/13/25 17:29	1
Tetrahydrofuran	ND		10		ug/L			08/13/25 17:29	1
Toluene	ND		1.0		ug/L			08/13/25 17:29	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/13/25 17:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/13/25 17:29	1
Trichloroethene	ND		1.0		ug/L			08/13/25 17:29	1
Trichlorofluoromethane	ND		5.0		ug/L			08/13/25 17:29	1
Trihalomethanes, Total	ND		1.0		ug/L			08/13/25 17:29	1
Vinyl acetate	ND		10		ug/L			08/13/25 17:29	1
Vinyl chloride	ND		0.50		ug/L			08/13/25 17:29	1
Xylenes, Total	ND		1.0		ug/L			08/13/25 17:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*60 - 140*		*08/13/25 17:29*	*1*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*08/13/25 17:29*	*1*
Dibromofluoromethane	*106*		*60 - 140*		*08/13/25 17:29*	*1*
Toluene-d8 (Surr)	*97*		*60 - 140*		*08/13/25 17:29*	*1*

Lab Sample ID: LCS 570-611135/1002
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			20.0	20.9		ug/L		104	60 - 140		
1,1,1-Trichloroethane			20.0	19.9		ug/L		99	70 - 130		
1,1,2,2-Tetrachloroethane			20.0	22.4		ug/L		112	60 - 140		
1,1,2-Trichloro-1,2,2-trifluoroetha ne			20.0	19.7		ug/L		98	60 - 140		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-611135/1002
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	20.0	21.0		ug/L		105	70 - 130
1,1-Dichloroethane	20.0	20.3		ug/L		101	70 - 130
1,1-Dichloroethene	20.0	19.8		ug/L		99	50 - 150
1,1-Dichloropropene	20.0	20.5		ug/L		102	60 - 140
1,2,3-Trichlorobenzene	20.0	22.4		ug/L		112	60 - 140
1,2,3-Trichloropropane	20.0	21.3		ug/L		107	60 - 140
1,2,4-Trichlorobenzene	20.0	22.3		ug/L		111	60 - 140
1,2,4-Trimethylbenzene	20.0	21.1		ug/L		105	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	23.0		ug/L		115	60 - 140
1,2-Dibromoethane	20.0	20.9		ug/L		104	60 - 140
1,2-Dichlorobenzene	20.0	21.8		ug/L		109	65 - 135
1,2-Dichloroethane	20.0	22.1		ug/L		111	70 - 130
1,2-Dichloropropane	20.0	20.9		ug/L		104	35 - 165
1,3,5-Trimethylbenzene	20.0	20.6		ug/L		103	60 - 140
1,3-Dichlorobenzene	20.0	20.7		ug/L		103	70 - 130
1,3-Dichloropropane	20.0	20.2		ug/L		101	60 - 140
1,4-Dichlorobenzene	20.0	21.0		ug/L		105	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	19.8		ug/L		99	60 - 140
2,2-Dichloropropane	20.0	21.7		ug/L		109	60 - 140
2-Butanone	20.0	20.8		ug/L		104	60 - 140
2-Chloroethyl vinyl ether	20.0	20.0		ug/L		100	1 - 225
2-Chlorotoluene	20.0	20.5		ug/L		102	60 - 140
2-Hexanone	20.0	20.7		ug/L		104	60 - 140
4-Chlorotoluene	20.0	20.9		ug/L		105	60 - 140
4-Methyl-2-pentanone	20.0	21.1		ug/L		106	60 - 140
Acetone	20.0	20.8		ug/L		104	60 - 140
Benzene	20.0	21.0		ug/L		105	65 - 135
Bromobenzene	20.0	20.8		ug/L		104	60 - 140
Bromochloromethane	20.0	21.9		ug/L		110	60 - 140
Bromodichloromethane	20.0	21.6		ug/L		108	65 - 135
Bromoform	20.0	21.7		ug/L		108	70 - 130
Bromomethane	20.0	16.6		ug/L		83	15 - 185
Carbon disulfide	20.0	19.6		ug/L		98	60 - 140
Carbon tetrachloride	20.0	21.4		ug/L		107	70 - 130
Chlorobenzene	20.0	20.7		ug/L		103	65 - 135
Chloroethane	20.0	16.1		ug/L		81	40 - 160
Chloroform	20.0	20.5		ug/L		103	70 - 135
Chloromethane	20.0	18.1		ug/L		91	1 - 205
cis-1,2-Dichloroethene	20.0	20.9		ug/L		104	60 - 140
cis-1,3-Dichloropropene	20.0	21.2		ug/L		106	25 - 175
Dibromochloromethane	20.0	20.8		ug/L		104	70 - 135
Dibromomethane	20.0	21.6		ug/L		108	60 - 140
Dichlorodifluoromethane	20.0	13.1		ug/L		65	60 - 140
Di-isopropyl ether (DIPE)	20.0	20.6		ug/L		103	60 - 140
Ethanol	200	182		ug/L		91	60 - 140
Ethylbenzene	20.0	20.3		ug/L		102	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	20.0		ug/L		100	60 - 140
Hexachloro-1,3-butadiene	20.0	21.6		ug/L		108	60 - 140
Isopropanol	100	107		ug/L		107	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-611135/1002
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	20.0	20.2		ug/L		101	60 - 140
m,p-Xylene	40.0	41.0		ug/L		103	60 - 140
Methylene Chloride	20.0	20.6		ug/L		103	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	21.0		ug/L		105	60 - 140
Naphthalene	20.0	21.1		ug/L		105	60 - 140
n-Butylbenzene	20.0	21.5		ug/L		108	60 - 140
N-Propylbenzene	20.0	20.1		ug/L		101	60 - 140
o-Xylene	20.0	20.4		ug/L		102	60 - 140
p-Isopropyltoluene	20.0	20.9		ug/L		104	60 - 140
sec-Butylbenzene	20.0	21.1		ug/L		105	60 - 140
Styrene	20.0	20.6		ug/L		103	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	20.2		ug/L		101	60 - 140
tert-Butyl alcohol (TBA)	100	98.1		ug/L		98	60 - 140
tert-Butylbenzene	20.0	21.3		ug/L		107	60 - 140
Tetrachloroethene	20.0	20.0		ug/L		100	70 - 130
Tetrahydrofuran	20.0	20.9		ug/L		104	60 - 140
Toluene	20.0	20.5		ug/L		102	70 - 130
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	70 - 130
trans-1,3-Dichloropropene	20.0	21.6		ug/L		108	50 - 150
Trichloroethene	20.0	20.3		ug/L		101	65 - 135
Trichlorofluoromethane	20.0	16.2		ug/L		81	50 - 150
Vinyl acetate	20.0	22.6		ug/L		113	60 - 140
Vinyl chloride	20.0	16.4		ug/L		82	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*60 - 140*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*
Dibromofluoromethane	*101*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Lab Sample ID: LCSD 570-611135/3
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	20.2		ug/L		101	60 - 140	3	30
1,1,1-Trichloroethane	20.0	19.7		ug/L		98	70 - 130	1	36
1,1,2,2-Tetrachloroethane	20.0	21.9		ug/L		110	60 - 140	2	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	19.2		ug/L		96	60 - 140	3	30
1,1,2-Trichloroethane	20.0	20.4		ug/L		102	70 - 130	3	45
1,1-Dichloroethane	20.0	20.1		ug/L		101	70 - 130	1	40
1,1-Dichloroethene	20.0	19.7		ug/L		98	50 - 150	1	32
1,1-Dichloropropene	20.0	19.8		ug/L		99	60 - 140	4	30
1,2,3-Trichlorobenzene	20.0	22.2		ug/L		111	60 - 140	1	30
1,2,3-Trichloropropane	20.0	20.9		ug/L		104	60 - 140	2	30
1,2,4-Trichlorobenzene	20.0	21.7		ug/L		109	60 - 140	3	30
1,2,4-Trimethylbenzene	20.0	20.8		ug/L		104	60 - 140	1	30
1,2-Dibromo-3-Chloropropane	20.0	23.3		ug/L		117	60 - 140	1	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-611135/3
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane	20.0	19.8		ug/L		99	60 - 140	5	30
1,2-Dichlorobenzene	20.0	21.1		ug/L		106	65 - 135	3	57
1,2-Dichloroethane	20.0	21.7		ug/L		109	70 - 130	2	49
1,2-Dichloropropane	20.0	19.9		ug/L		99	35 - 165	5	55
1,3,5-Trimethylbenzene	20.0	19.3		ug/L		97	60 - 140	6	30
1,3-Dichlorobenzene	20.0	20.3		ug/L		101	70 - 130	2	43
1,3-Dichloropropane	20.0	19.5		ug/L		97	60 - 140	4	30
1,4-Dichlorobenzene	20.0	20.7		ug/L		103	65 - 135	2	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	18.9		ug/L		95	60 - 140	4	30
2,2-Dichloropropane	20.0	21.2		ug/L		106	60 - 140	2	30
2-Butanone	20.0	20.7		ug/L		104	60 - 140	1	30
2-Chloroethyl vinyl ether	20.0	20.2		ug/L		101	1 - 225	1	71
2-Chlorotoluene	20.0	19.3		ug/L		96	60 - 140	6	30
2-Hexanone	20.0	20.7		ug/L		103	60 - 140	0	30
4-Chlorotoluene	20.0	20.3		ug/L		102	60 - 140	3	30
4-Methyl-2-pentanone	20.0	20.8		ug/L		104	60 - 140	2	30
Acetone	20.0	20.2		ug/L		101	60 - 140	3	30
Benzene	20.0	20.0		ug/L		100	65 - 135	5	61
Bromobenzene	20.0	19.7		ug/L		98	60 - 140	6	30
Bromochloromethane	20.0	21.5		ug/L		108	60 - 140	2	30
Bromodichloromethane	20.0	20.7		ug/L		103	65 - 135	4	56
Bromoform	20.0	21.4		ug/L		107	70 - 130	1	42
Bromomethane	20.0	15.7		ug/L		79	15 - 185	5	61
Carbon disulfide	20.0	19.0		ug/L		95	60 - 140	3	30
Carbon tetrachloride	20.0	20.7		ug/L		104	70 - 130	3	41
Chlorobenzene	20.0	19.9		ug/L		100	65 - 135	4	53
Chloroethane	20.0	15.9		ug/L		80	40 - 160	1	78
Chloroform	20.0	20.0		ug/L		100	70 - 135	2	30
Chloromethane	20.0	17.8		ug/L		89	1 - 205	2	60
cis-1,2-Dichloroethene	20.0	20.4		ug/L		102	60 - 140	2	30
cis-1,3-Dichloropropene	20.0	20.4		ug/L		102	25 - 175	4	58
Dibromochloromethane	20.0	20.7		ug/L		103	70 - 135	1	50
Dibromomethane	20.0	21.2		ug/L		106	60 - 140	2	30
Dichlorodifluoromethane	20.0	12.1		ug/L		60	60 - 140	8	30
Di-isopropyl ether (DIPE)	20.0	20.3		ug/L		101	60 - 140	2	30
Ethanol	200	186		ug/L		93	60 - 140	2	30
Ethylbenzene	20.0	19.2		ug/L		96	60 - 140	6	63
Ethyl-t-butyl ether (ETBE)	20.0	20.2		ug/L		101	60 - 140	1	30
Hexachloro-1,3-butadiene	20.0	19.8		ug/L		99	60 - 140	9	30
Isopropanol	100	111		ug/L		111	60 - 140	3	30
Isopropylbenzene	20.0	19.2		ug/L		96	60 - 140	5	30
m,p-Xylene	40.0	38.9		ug/L		97	60 - 140	5	30
Methylene Chloride	20.0	19.1		ug/L		95	60 - 140	8	28
Methyl-t-Butyl Ether (MTBE)	20.0	21.3		ug/L		107	60 - 140	2	30
Naphthalene	20.0	21.1		ug/L		105	60 - 140	0	30
n-Butylbenzene	20.0	20.8		ug/L		104	60 - 140	3	30
N-Propylbenzene	20.0	19.3		ug/L		97	60 - 140	4	30
o-Xylene	20.0	19.6		ug/L		98	60 - 140	4	30
p-Isopropyltoluene	20.0	20.2		ug/L		101	60 - 140	3	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-611135/3
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
sec-Butylbenzene			20.0	20.1		ug/L		101	60 - 140	5	30
Styrene			20.0	19.9		ug/L		99	60 - 140	4	30
Tert-amyl-methyl ether (TAME)			20.0	20.0		ug/L		100	60 - 140	1	30
tert-Butyl alcohol (TBA)			100	98.7		ug/L		99	60 - 140	1	30
tert-Butylbenzene			20.0	20.5		ug/L		102	60 - 140	4	30
Tetrachloroethene			20.0	19.0		ug/L		95	70 - 130	5	39
Tetrahydrofuran			20.0	21.8		ug/L		109	60 - 140	4	30
Toluene			20.0	19.5		ug/L		97	70 - 130	5	41
trans-1,2-Dichloroethene			20.0	19.6		ug/L		98	70 - 130	2	45
trans-1,3-Dichloropropene			20.0	20.7		ug/L		104	50 - 150	4	86
Trichloroethene			20.0	20.0		ug/L		100	65 - 135	1	48
Trichlorofluoromethane			20.0	15.9		ug/L		79	50 - 150	2	84
Vinyl acetate			20.0	21.7		ug/L		109	60 - 140	4	30
Vinyl chloride			20.0	15.9		ug/L		79	5 - 195	3	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*60 - 140*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*
Dibromofluoromethane	*103*		*60 - 140*
Toluene-d8 (Surr)	*99*		*60 - 140*

Lab Sample ID: MB 570-614667/7
Matrix: Water
Analysis Batch: 614667

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		2.0		ug/L			08/21/25 08:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*60 - 140*		*08/21/25 08:43*	*1*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*		*08/21/25 08:43*	*1*
Dibromofluoromethane	*101*		*60 - 140*		*08/21/25 08:43*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/21/25 08:43*	*1*

Lab Sample ID: LCS 570-614667/1003
Matrix: Water
Analysis Batch: 614667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2-Chloroethyl vinyl ether			20.0	18.7		ug/L		94	1 - 225		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*60 - 140*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*
Dibromofluoromethane	*101*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-614667/4
Matrix: Water
Analysis Batch: 614667

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether			20.0	19.5		ug/L		98	1 - 225	4	71

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*60 - 140*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*
Dibromofluoromethane	*101*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Lab Sample ID: MB 570-614674/7
Matrix: Water
Analysis Batch: 614674

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.0		ug/L			08/21/25 10:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*60 - 140*		*08/21/25 10:10*	*1*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/21/25 10:10*	*1*
Dibromofluoromethane	*111*		*60 - 140*		*08/21/25 10:10*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*08/21/25 10:10*	*1*

Lab Sample ID: LCS 570-614674/1003
Matrix: Water
Analysis Batch: 614674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromodichloromethane			20.0	20.9		ug/L		104	65 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*60 - 140*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*
Dibromofluoromethane	*109*		*60 - 140*
Toluene-d8 (Surr)	*98*		*60 - 140*

Lab Sample ID: LCSD 570-614674/4
Matrix: Water
Analysis Batch: 614674

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromodichloromethane			20.0	20.0		ug/L		100	65 - 135	4	56

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*60 - 140*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*
Dibromofluoromethane	*110*		*60 - 140*
Toluene-d8 (Surr)	*99*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-611616/1-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611616

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
1,2-Dichlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
1,3-Dichlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
1,4-Dichlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
1-Methylnaphthalene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4,5-Trichlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4,6-Trichlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4-Dichlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4-Dimethylphenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4-Dinitrophenol	ND		50		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4-Dinitrotoluene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,6-Dichlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,6-Dinitrotoluene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Chloronaphthalene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Chlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Methylnaphthalene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Methylphenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Nitroaniline	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Nitrophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
3,3'-Dichlorobenzidine	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
3/4-Methylphenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
3-Nitroaniline	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Bromophenyl phenyl ether	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Chloro-3-methylphenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Chloroaniline	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Nitroaniline	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Nitrophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Acenaphthene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Acenaphthylene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Acetophenone	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Alpha-Terpineol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Aniline	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Anthracene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Azobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzidine	ND		50		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzo[a]anthracene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzo[a]pyrene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzo[b]fluoranthene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzo[k]fluoranthene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzoic acid	ND		50		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzyl alcohol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Bis(2-chloroethyl)ether	ND		25		ug/L		08/14/25 12:40	08/19/25 12:41	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-611616/1-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611616

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Butyl benzyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Carbazole	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Chrysene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Dibenz(a,h)anthracene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Dibenzofuran	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Diethyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Dimethyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Di-n-butyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Di-n-octyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Fluoranthene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Fluorene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Hexachloro-1,3-butadiene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Hexachlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Hexachlorocyclopentadiene	ND		25		ug/L		08/14/25 12:40	08/19/25 12:41	1
Hexachloroethane	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Isophorone	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Naphthalene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
n-Decane	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Nitrobenzene	ND		25		ug/L		08/14/25 12:40	08/19/25 12:41	1
N-Nitrosodimethylamine	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
N-Nitrosodiphenylamine	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
n-Octadecane	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Pentachlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Phenanthrene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Phenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Pyrene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Pyridine	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*08/14/25 12:40*	*08/19/25 12:41*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*33 - 139*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
2-Fluorobiphenyl (Surr)	*77*		*33 - 126*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
2-Fluorophenol (Surr)	*54*		*12 - 120*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
Nitrobenzene-d5 (Surr)	*85*		*36 - 120*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
Phenol-d6 (Surr)	*35*		*10 - 120*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
p-Terphenyl-d14 (Surr)	*79*		*47 - 131*	*08/14/25 12:40*	*08/19/25 12:41*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-611616/2-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	100	89.3		ug/L		89	57 - 130
1,2-Dichlorobenzene	100	85.1		ug/L		85	50 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	78.5		ug/L		79	57 - 120
1,3-Dichlorobenzene	100	83.4		ug/L		83	46 - 120
1,4-Dichlorobenzene	100	81.1		ug/L		81	47 - 120
1-Methylnaphthalene	100	92.4		ug/L		92	63 - 120
2,4,5-Trichlorophenol	100	88.8		ug/L		89	62 - 120
2,4,6-Trichlorophenol	100	95.4		ug/L		95	52 - 129
2,4-Dichlorophenol	100	97.2		ug/L		97	53 - 122
2,4-Dimethylphenol	100	88.6		ug/L		89	42 - 120
2,4-Dinitrophenol	100	100		ug/L		100	1 - 173
2,4-Dinitrotoluene	100	92.2		ug/L		92	48 - 127
2,6-Dichlorophenol	100	94.2		ug/L		94	64 - 120
2,6-Dinitrotoluene	100	93.8		ug/L		94	68 - 137
2-Chloronaphthalene	100	84.6		ug/L		85	65 - 120
2-Chlorophenol	100	94.0		ug/L		94	36 - 120
2-Methylnaphthalene	100	89.3		ug/L		89	60 - 120
2-Methylphenol	100	88.6		ug/L		89	55 - 120
2-Nitroaniline	100	102		ug/L		102	53 - 120
2-Nitrophenol	100	96.7		ug/L		97	45 - 167
3,3'-Dichlorobenzidine	100	91.6		ug/L		92	8 - 213
3/4-Methylphenol	200	160		ug/L		80	41 - 120
3-Nitroaniline	100	102		ug/L		102	62 - 120
4,6-Dinitro-2-methylphenol	100	91.0		ug/L		91	53 - 130
4-Bromophenyl phenyl ether	100	85.7		ug/L		86	65 - 120
4-Chloro-3-methylphenol	100	96.5		ug/L		96	41 - 128
4-Chloroaniline	100	98.7		ug/L		99	53 - 120
4-Chlorophenyl phenyl ether	100	92.0		ug/L		92	38 - 145
4-Nitroaniline	100	108		ug/L		108	61 - 120
4-Nitrophenol	100	34.5		ug/L		35	13 - 129
Acenaphthene	100	85.8		ug/L		86	60 - 132
Acenaphthylene	100	86.4		ug/L		86	54 - 126
Acetophenone	100	92.8		ug/L		93	45 - 120
Alpha-Terpineol	100	87.3		ug/L		87	60 - 140
Aniline	100	95.7		ug/L		96	50 - 120
Anthracene	100	84.8		ug/L		85	43 - 120
Azobenzene	100	78.5		ug/L		79	57 - 120
Benzidine	100	29.6	J	ug/L		30	20 - 143
Benzo[a]anthracene	100	93.1		ug/L		93	42 - 133
Benzo[a]pyrene	100	92.3		ug/L		92	32 - 148
Benzo[b]fluoranthene	100	96.0		ug/L		96	42 - 140
Benzo[g,h,i]perylene	100	85.5		ug/L		86	1 - 195
Benzo[k]fluoranthene	100	85.0		ug/L		85	25 - 146
Benzoic acid	100	49.2	J	ug/L		49	20 - 120
Benzyl alcohol	100	86.7		ug/L		87	47 - 120
Bis (2-chloroethoxy) methane	100	91.3		ug/L		91	49 - 165
bis (2-chloroisopropyl) ether	100	89.6		ug/L		90	63 - 139
Bis(2-chloroethyl)ether	100	91.4		ug/L		91	43 - 126

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-611616/2-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-ethylhexyl) phthalate	100	95.4		ug/L		95	29 - 137
Butyl benzyl phthalate	100	95.4		ug/L		95	1 - 140
Chrysene	100	90.1		ug/L		90	44 - 140
Dibenz(a,h)anthracene	100	86.7		ug/L		87	1 - 200
Dibenzofuran	100	93.2		ug/L		93	61 - 120
Diethyl phthalate	100	98.3		ug/L		98	1 - 120
Dimethyl phthalate	100	94.7		ug/L		95	1 - 120
Di-n-butyl phthalate	100	93.3		ug/L		93	8 - 120
Di-n-octyl phthalate	100	91.4		ug/L		91	19 - 132
Fluoranthene	100	86.6		ug/L		87	43 - 121
Fluorene	100	93.3		ug/L		93	70 - 120
Hexachloro-1,3-butadiene	100	85.1		ug/L		85	38 - 120
Hexachlorobenzene	100	85.0		ug/L		85	8 - 142
Hexachlorocyclopentadiene	100	83.9		ug/L		84	46 - 135
Hexachloroethane	100	79.6		ug/L		80	55 - 120
Indeno[1,2,3-cd]pyrene	100	82.4		ug/L		82	1 - 151
Isophorone	100	93.3		ug/L		93	47 - 180
Naphthalene	100	85.3		ug/L		85	36 - 120
Nitrobenzene	100	87.8		ug/L		88	54 - 158
N-Nitrosodimethylamine	100	58.8		ug/L		59	38 - 120
N-Nitrosodi-n-propylamine	100	96.9		ug/L		97	14 - 198
N-Nitrosodiphenylamine	100	109		ug/L		109	79 - 127
Pentachlorophenol	100	72.3		ug/L		72	38 - 152
Phenanthrene	100	85.2		ug/L		85	65 - 120
Phenol	100	45.7		ug/L		46	17 - 120
Pyrene	100	95.7		ug/L		96	70 - 120
Pyridine	100	62.4		ug/L		62	27 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*89*		*33 - 139*
2-Fluorobiphenyl (Surr)	*79*		*33 - 126*
2-Fluorophenol (Surr)	*57*		*12 - 120*
Nitrobenzene-d5 (Surr)	*86*		*36 - 120*
Phenol-d6 (Surr)	*40*		*10 - 120*
p-Terphenyl-d14 (Surr)	*93*		*47 - 131*

Lab Sample ID: LCSD 570-611616/3-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 611616

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	85.3		ug/L		85	57 - 130	5	30
1,2-Dichlorobenzene	100	83.1		ug/L		83	50 - 120	2	20
1,2-Diphenylhydrazine(as Azobenzene)	100	75.8		ug/L		76	57 - 120	4	20
1,3-Dichlorobenzene	100	80.9		ug/L		81	46 - 120	3	20
1,4-Dichlorobenzene	100	79.8		ug/L		80	47 - 120	2	20
1-Methylnaphthalene	100	89.8		ug/L		90	63 - 120	3	20
2,4,5-Trichlorophenol	100	81.7		ug/L		82	62 - 120	8	20

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-611616/3-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 611616

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,6-Trichlorophenol	100	92.9		ug/L		93	52 - 129	3	35
2,4-Dichlorophenol	100	96.3		ug/L		96	53 - 122	1	30
2,4-Dimethylphenol	100	86.6		ug/L		87	42 - 120	2	35
2,4-Dinitrophenol	100	105		ug/L		105	1 - 173	4	79
2,4-Dinitrotoluene	100	90.2		ug/L		90	48 - 127	2	25
2,6-Dichlorophenol	100	91.8		ug/L		92	64 - 120	3	20
2,6-Dinitrotoluene	100	93.6		ug/L		94	68 - 137	0	29
2-Chloronaphthalene	100	84.5		ug/L		84	65 - 120	0	15
2-Chlorophenol	100	94.5		ug/L		94	36 - 120	1	37
2-Methylnaphthalene	100	86.1		ug/L		86	60 - 120	4	20
2-Methylphenol	100	89.8		ug/L		90	55 - 120	1	20
2-Nitroaniline	100	100		ug/L		100	53 - 120	2	20
2-Nitrophenol	100	96.3		ug/L		96	45 - 167	0	33
3,3'-Dichlorobenzidine	100	88.4		ug/L		88	8 - 213	4	65
3/4-Methylphenol	200	162		ug/L		81	41 - 120	2	20
3-Nitroaniline	100	101		ug/L		101	62 - 120	2	20
4,6-Dinitro-2-methylphenol	100	89.5		ug/L		89	53 - 130	2	122
4-Bromophenyl phenyl ether	100	82.0		ug/L		82	65 - 120	4	26
4-Chloro-3-methylphenol	100	95.6		ug/L		96	41 - 128	1	44
4-Chloroaniline	100	98.5		ug/L		99	53 - 120	0	20
4-Chlorophenyl phenyl ether	100	88.7		ug/L		89	38 - 145	4	36
4-Nitroaniline	100	108		ug/L		108	61 - 120	0	20
4-Nitrophenol	100	37.3		ug/L		37	13 - 129	8	79
Acenaphthene	100	82.8		ug/L		83	60 - 132	4	29
Acenaphthylene	100	85.6		ug/L		86	54 - 126	1	45
Acetophenone	100	91.9		ug/L		92	45 - 120	1	20
Alpha-Terpineol	100	86.9		ug/L		87	60 - 140	1	30
Aniline	100	95.1		ug/L		95	50 - 120	1	20
Anthracene	100	82.5		ug/L		83	43 - 120	3	40
Azobenzene	100	75.8		ug/L		76	57 - 120	4	20
Benzidine	100	31.6	J	ug/L		32	20 - 143	7	30
Benzo[a]anthracene	100	89.9		ug/L		90	42 - 133	4	32
Benzo[a]pyrene	100	88.4		ug/L		88	32 - 148	4	43
Benzo[b]fluoranthene	100	89.3		ug/L		89	42 - 140	7	43
Benzo[g,h,i]perylene	100	81.8		ug/L		82	1 - 195	4	61
Benzo[k]fluoranthene	100	85.4		ug/L		85	25 - 146	1	38
Benzoic acid	100	48.5	J	ug/L		49	20 - 120	1	20
Benzyl alcohol	100	80.4		ug/L		80	47 - 120	8	20
Bis (2-chloroethoxy) methane	100	89.2		ug/L		89	49 - 165	2	32
bis (2-chloroisopropyl) ether	100	90.1		ug/L		90	63 - 139	1	46
Bis(2-chloroethyl)ether	100	94.7		ug/L		95	43 - 126	4	65
Bis(2-ethylhexyl) phthalate	100	90.9		ug/L		91	29 - 137	5	50
Butyl benzyl phthalate	100	91.4		ug/L		91	1 - 140	4	36
Chrysene	100	86.0		ug/L		86	44 - 140	5	53
Dibenz(a,h)anthracene	100	83.8		ug/L		84	1 - 200	3	75
Dibenzofuran	100	91.3		ug/L		91	61 - 120	2	20
Diethyl phthalate	100	95.8		ug/L		96	1 - 120	3	60
Dimethyl phthalate	100	93.5		ug/L		93	1 - 120	1	110
Di-n-butyl phthalate	100	91.5		ug/L		92	8 - 120	2	28

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-611616/3-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 611616

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate	100	86.3		ug/L		86	19 - 132	6	42
Fluoranthene	100	85.0		ug/L		85	43 - 121	2	40
Fluorene	100	91.4		ug/L		91	70 - 120	2	23
Hexachloro-1,3-butadiene	100	80.9		ug/L		81	38 - 120	5	38
Hexachlorobenzene	100	83.9		ug/L		84	8 - 142	1	33
Hexachlorocyclopentadiene	100	82.3		ug/L		82	46 - 135	2	20
Hexachloroethane	100	75.3		ug/L		75	55 - 120	6	32
Indeno[1,2,3-cd]pyrene	100	80.9		ug/L		81	1 - 151	2	60
Isophorone	100	91.5		ug/L		92	47 - 180	2	56
Naphthalene	100	81.7		ug/L		82	36 - 120	4	39
Nitrobenzene	100	85.3		ug/L		85	54 - 158	3	37
N-Nitrosodimethylamine	100	61.5		ug/L		62	38 - 120	5	20
N-Nitrosodi-n-propylamine	100	97.9		ug/L		98	14 - 198	1	52
N-Nitrosodiphenylamine	100	105		ug/L		105	79 - 127	4	20
Pentachlorophenol	100	69.6		ug/L		70	38 - 152	4	52
Phenanthrene	100	83.1		ug/L		83	65 - 120	2	24
Phenol	100	45.8		ug/L		46	17 - 120	0	39
Pyrene	100	91.8		ug/L		92	70 - 120	4	30
Pyridine	100	62.7		ug/L		63	27 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*85*		*33 - 139*
2-Fluorobiphenyl (Surr)	*76*		*33 - 126*
2-Fluorophenol (Surr)	*57*		*12 - 120*
Nitrobenzene-d5 (Surr)	*84*		*36 - 120*
Phenol-d6 (Surr)	*41*		*10 - 120*
p-Terphenyl-d14 (Surr)	*90*		*47 - 131*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 410-687067/1-A
Matrix: Water
Analysis Batch: 687673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 687067

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30	ug/L		08/18/25 15:45	08/19/25 19:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*67*		*30 - 187*	*08/18/25 15:45*	*08/19/25 19:58*	*1*
Benzo(a)pyrene-d12 (Surr)	*76*		*32 - 194*	*08/18/25 15:45*	*08/19/25 19:58*	*1*
1-Methylnaphthalene-d10	*64*		*45 - 130*	*08/18/25 15:45*	*08/19/25 19:58*	*1*

Lab Sample ID: LCS 410-687067/2-A
Matrix: Water
Analysis Batch: 687673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 687067

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1.00	0.299	J	ug/L		30	18 - 130

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCS 410-687067/2-A
Matrix: Water
Analysis Batch: 687673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 687067

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*58*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*70*		*32 - 194*
1-Methylnaphthalene-d10	*60*		*45 - 130*

Lab Sample ID: LCSD 410-687067/3-A
Matrix: Water
Analysis Batch: 687673

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 687067

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			1.00	0.326		ug/L		33	18 - 130	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*64*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*81*		*32 - 194*
1-Methylnaphthalene-d10	*65*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-615790/5
Matrix: Water
Analysis Batch: 615790

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50		ug/L			08/23/25 12:47	1
Gasoline Range Organics (C4-C12)	ND		50		ug/L			08/23/25 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*20 - 144*		*08/23/25 12:47*	*1*

Lab Sample ID: LCS 570-615790/3
Matrix: Water
Analysis Batch: 615790

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			2000	1750		ug/L		87	71 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*20 - 144*

Lab Sample ID: LCSD 570-615790/4
Matrix: Water
Analysis Batch: 615790

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2000	1690		ug/L		85	71 - 120	3	20

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCSD 570-615790/4
Matrix: Water
Analysis Batch: 615790

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		20 - 144

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-611606/1-A
Matrix: Water
Analysis Batch: 615049

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611606

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.010	ug/L		08/14/25 12:23	08/21/25 18:38	1
4,4'-DDE	ND		0.0050	ug/L		08/14/25 12:23	08/21/25 18:38	1
4,4'-DDT	ND		0.0050	ug/L		08/14/25 12:23	08/21/25 18:38	1
Aldrin	ND		0.0050	ug/L		08/14/25 12:23	08/21/25 18:38	1
alpha-BHC	ND		0.0020	ug/L		08/14/25 12:23	08/21/25 18:38	1
alpha-Chlordane	ND		0.050	ug/L		08/14/25 12:23	08/21/25 18:38	1
beta-BHC	ND		0.0075	ug/L		08/14/25 12:23	08/21/25 18:38	1
Chlordane	ND		0.050	ug/L		08/14/25 12:23	08/21/25 18:38	1
delta-BHC	ND		0.0050	ug/L		08/14/25 12:23	08/21/25 18:38	1
Dieldrin	ND		0.0050	ug/L		08/14/25 12:23	08/21/25 18:38	1
Endosulfan I	ND		0.0020	ug/L		08/14/25 12:23	08/21/25 18:38	1
Endosulfan II	ND		0.010	ug/L		08/14/25 12:23	08/21/25 18:38	1
Endosulfan sulfate	ND		0.0050	ug/L		08/14/25 12:23	08/21/25 18:38	1
Endrin	ND		0.0050	ug/L		08/14/25 12:23	08/21/25 18:38	1
Endrin aldehyde	ND		0.050	ug/L		08/14/25 12:23	08/21/25 18:38	1
Endrin ketone	ND		0.0050	ug/L		08/14/25 12:23	08/21/25 18:38	1
gamma-BHC (Lindane)	ND		0.0020	ug/L		08/14/25 12:23	08/21/25 18:38	1
gamma-Chlordane	ND		0.015	ug/L		08/14/25 12:23	08/21/25 18:38	1
Heptachlor	ND		0.0020	ug/L		08/14/25 12:23	08/21/25 18:38	1
Heptachlor epoxide	ND		0.010	ug/L		08/14/25 12:23	08/21/25 18:38	1
Methoxychlor	ND		0.010	ug/L		08/14/25 12:23	08/21/25 18:38	1
Toxaphene	ND		0.10	ug/L		08/14/25 12:23	08/21/25 18:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	117		20 - 154	08/14/25 12:23	08/21/25 18:38	1
Tetrachloro-m-xylene (Surr)	95		20 - 139	08/14/25 12:23	08/21/25 18:38	1

Lab Sample ID: LCS 570-611606/2-A
Matrix: Water
Analysis Batch: 615049

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0500	0.0413		ug/L		83	31 - 141
4,4'-DDE	0.0500	0.0360		ug/L		72	30 - 145
4,4'-DDT	0.0500	0.0443		ug/L		89	25 - 160
Aldrin	0.0500	0.0307		ug/L		61	42 - 140
alpha-BHC	0.0500	0.0321		ug/L		64	37 - 140
alpha-Chlordane	0.0500	0.0349	J	ug/L		70	45 - 140
beta-BHC	0.0500	0.0346		ug/L		69	17 - 147

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCS 570-611606/2-A
Matrix: Water
Analysis Batch: 615049

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
delta-BHC	0.0500	0.0275		ug/L		55	19 - 140
Dieldrin	0.0500	0.0393		ug/L		79	36 - 146
Endosulfan I	0.0500	0.0355		ug/L		71	45 - 153
Endosulfan II	0.0500	0.0399		ug/L		80	1 - 202
Endosulfan sulfate	0.0500	0.0404		ug/L		81	26 - 144
Endrin	0.0500	0.0379		ug/L		76	30 - 147
Endrin aldehyde	0.0500	ND		ug/L		72	50 - 135
Endrin ketone	0.0500	0.0448		ug/L		90	60 - 140
gamma-BHC (Lindane)	0.0500	0.0336		ug/L		67	32 - 140
gamma-Chlordane	0.0500	0.0326		ug/L		65	45 - 140
Heptachlor	0.0500	0.0312		ug/L		62	34 - 140
Heptachlor epoxide	0.0500	0.0345		ug/L		69	37 - 142
Methoxychlor	0.0500	0.0461		ug/L		92	50 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*99*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*72*		*20 - 139*

Lab Sample ID: LCSD 570-611606/3-A
Matrix: Water
Analysis Batch: 615049

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 611606

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	0.0500	0.0365		ug/L		73	31 - 141	12	39
4,4'-DDE	0.0500	0.0315		ug/L		63	30 - 145	13	35
4,4'-DDT	0.0500	0.0401		ug/L		80	25 - 160	10	42
Aldrin	0.0500	0.0286		ug/L		57	42 - 140	7	35
alpha-BHC	0.0500	0.0300		ug/L		60	37 - 140	7	36
alpha-Chlordane	0.0500	0.0320	J	ug/L		64	45 - 140	9	35
beta-BHC	0.0500	0.0326		ug/L		65	17 - 147	6	44
delta-BHC	0.0500	0.0257		ug/L		51	19 - 140	7	52
Dieldrin	0.0500	0.0355		ug/L		71	36 - 146	10	49
Endosulfan I	0.0500	0.0330		ug/L		66	45 - 153	7	28
Endosulfan II	0.0500	0.0364		ug/L		73	1 - 202	9	53
Endosulfan sulfate	0.0500	0.0355		ug/L		71	26 - 144	13	38
Endrin	0.0500	0.0351		ug/L		70	30 - 147	8	48
Endrin aldehyde	0.0500	ND		ug/L		69	50 - 135	5	25
Endrin ketone	0.0500	0.0390		ug/L		78	60 - 140	14	30
gamma-BHC (Lindane)	0.0500	0.0317		ug/L		63	32 - 140	6	39
gamma-Chlordane	0.0500	0.0300		ug/L		60	45 - 140	9	35
Heptachlor	0.0500	0.0294		ug/L		59	34 - 140	6	43
Heptachlor epoxide	0.0500	0.0325		ug/L		65	37 - 142	6	26
Methoxychlor	0.0500	0.0403		ug/L		81	50 - 135	14	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*78*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*66*		*20 - 139*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-611606/1-A
Matrix: Water
Analysis Batch: 612576

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611606

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1221	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1232	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1242	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1248	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1254	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1260	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*103*		*20 - 154*	*08/14/25 12:23*	*08/16/25 17:50*	*1*
Tetrachloro-m-xylene (Surr)	*84*		*20 - 139*	*08/14/25 12:23*	*08/16/25 17:50*	*1*

Lab Sample ID: LCS 570-611606/4-A
Matrix: Water
Analysis Batch: 612576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611606

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			0.200	0.195		ug/L		97	50 - 140		
Aroclor-1260			0.200	0.197		ug/L		99	8 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*99*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*69*		*20 - 139*

Lab Sample ID: LCSD 570-611606/5-A
Matrix: Water
Analysis Batch: 612576

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 611606

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor-1016			0.200	0.262		ug/L		131	50 - 140	30	36
Aroclor-1260			0.200	0.423	*+ *1	ug/L		211	8 - 140	73	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*109*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*73*		*20 - 139*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-686677/1-A
Matrix: Water
Analysis Batch: 686773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 686677

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L		08/18/25 00:19	08/18/25 10:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*191*	*S1+*	*46 - 136*	*08/18/25 00:19*	*08/18/25 10:06*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: MB 410-686677/1-A
Matrix: Water
Analysis Batch: 686773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 686677

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr)	198	S1+	46 - 136	08/18/25 00:19	08/18/25 10:06	1

Lab Sample ID: LCS 410-686677/2-A
Matrix: Water
Analysis Batch: 686773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 686677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylene Dibromide	0.129	0.110		ug/L		85	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr)	102		46 - 136
1,1,2,2-Tetrachloroethane (Surr)	106		46 - 136

Lab Sample ID: LCSD 410-686677/3-A
Matrix: Water
Analysis Batch: 686773

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 686677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide	0.129	0.109		ug/L		84	60 - 140	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr)	102		46 - 136
1,1,2,2-Tetrachloroethane (Surr)	106		46 - 136

Method: 8015C - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 410-689808/1-A
Matrix: Water
Analysis Batch: 689815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 689808

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13	mg/L		08/24/25 11:58	08/24/25 13:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Butanediol	95		10 - 130	08/24/25 11:58	08/24/25 13:51	1

Lab Sample ID: LCS 410-689808/2-A
Matrix: Water
Analysis Batch: 689815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 689808

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylene glycol	99.8	109		mg/L		109	75 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Butanediol	116		10 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-611115/5
Matrix: Water
Analysis Batch: 611115

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10		mg/L			08/13/25 15:22	1
Chloride	ND		1.0		mg/L			08/13/25 15:22	1
Fluoride	ND		0.10		mg/L			08/13/25 15:22	1
Sulfate	ND		1.0		mg/L			08/13/25 15:22	1

Lab Sample ID: LCS 570-611115/6
Matrix: Water
Analysis Batch: 611115

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromide			5.00	4.89		mg/L		98	90 - 110		
Chloride			50.0	49.6		mg/L		99	90 - 110		
Fluoride			2.50	2.49		mg/L		100	90 - 110		
Sulfate			50.0	48.6		mg/L		97	90 - 110		

Lab Sample ID: LCSD 570-611115/7
Matrix: Water
Analysis Batch: 611115

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide			5.00	4.96		mg/L		99	90 - 110	1	15
Chloride			50.0	49.6		mg/L		99	90 - 110	0	15
Fluoride			2.50	2.52		mg/L		101	90 - 110	1	15
Sulfate			50.0	48.6		mg/L		97	90 - 110	0	15

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-9831/38
Matrix: Water
Analysis Batch: 9831

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			09/24/25 16:34	1

Lab Sample ID: MB 350-9831/39
Matrix: Water
Analysis Batch: 9831

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			09/24/25 16:38	1

Lab Sample ID: MB 350-9831/40
Matrix: Water
Analysis Batch: 9831

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			09/24/25 16:42	1

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: LCS 350-9831/41
Matrix: Water
Analysis Batch: 9831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			5.00	4.49		ng/L		90	77 - 123		

Lab Sample ID: LCSD 350-9831/42
Matrix: Water
Analysis Batch: 9831

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			5.00	4.51		ng/L		90	77 - 123	0	24

Lab Sample ID: 380-165553-1 MS
Matrix: Water
Analysis Batch: 9831

Client Sample ID: Well 13 Step MSD
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	1.1	F1	5.00	4.34	F1	ng/L		64	71 - 125		

Lab Sample ID: 380-165553-1 MSD
Matrix: Water
Analysis Batch: 9831

Client Sample ID: Well 13 Step MSD
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	1.1	F1	5.00	4.28	F1	ng/L		63	71 - 125	1	24

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-9820/2-A
Matrix: Water
Analysis Batch: 9857

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9820

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		09/24/25 16:09	09/25/25 12:01	1
Cadmium	ND		0.020		ug/L		09/24/25 16:09	09/25/25 12:01	1
Chromium	ND		1.0		ug/L		09/24/25 16:09	09/25/25 12:01	1
Copper	ND		0.50		ug/L		09/24/25 16:09	09/25/25 12:01	1
Lead	ND		0.050		ug/L		09/24/25 16:09	09/25/25 12:01	1
Silver	ND		1.0		ug/L		09/24/25 16:09	09/25/25 12:01	1
Zinc	ND		1.0		ug/L		09/24/25 16:09	09/25/25 12:01	1
Aluminum	ND		5.0		ug/L		09/24/25 16:09	09/25/25 12:01	1
Barium	ND		0.50		ug/L		09/24/25 16:09	09/25/25 12:01	1
Iron	ND		5.0		ug/L		09/24/25 16:09	09/25/25 12:01	1
Manganese	ND		0.050		ug/L		09/24/25 16:09	09/25/25 12:01	1
Selenium	ND		0.70		ug/L		09/24/25 16:09	09/25/25 12:01	1
Vanadium	ND		1.0		ug/L		09/24/25 16:09	09/25/25 12:01	1

Lab Sample ID: LCS 350-9820/3-A
Matrix: Water
Analysis Batch: 9857

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9820

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			12.5	12.5		ug/L		100	70 - 130		

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-9820/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9857 — **Prep Batch: 9820**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	1.25	1.23		ug/L		99	70 - 130
Chromium	12.5	13.9		ug/L		112	70 - 130
Copper	12.5	12.7		ug/L		101	70 - 130
Lead	2.50	2.36		ug/L		95	70 - 130
Silver	6.25	6.50		ug/L		104	70 - 130
Zinc	12.5	12.6		ug/L		101	70 - 130
Aluminum	125	134		ug/L		107	70 - 130
Barium	12.5	13.1		ug/L		105	70 - 130
Iron	62.5	60.3		ug/L		97	70 - 130
Manganese	12.5	13.0		ug/L		104	70 - 130
Selenium	12.5	11.5		ug/L		92	70 - 130
Vanadium	12.5	12.7		ug/L		102	70 - 130

Lab Sample ID: LCSD 350-9820/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9857 — **Prep Batch: 9820**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	12.4		ug/L		100	70 - 130	0	20
Cadmium	1.25	1.22		ug/L		98	70 - 130	1	20
Chromium	12.5	13.5		ug/L		108	70 - 130	3	20
Copper	12.5	13.2		ug/L		105	70 - 130	4	20
Lead	2.50	2.39		ug/L		96	70 - 130	1	20
Silver	6.25	6.64		ug/L		106	70 - 130	2	20
Zinc	12.5	12.7		ug/L		102	70 - 130	1	20
Aluminum	125	134		ug/L		107	70 - 130	0	20
Barium	12.5	13.1		ug/L		105	70 - 130	0	20
Iron	62.5	62.2		ug/L		99	70 - 130	3	20
Manganese	12.5	13.0		ug/L		104	70 - 130	0	20
Selenium	12.5	11.6		ug/L		93	70 - 130	1	20
Vanadium	12.5	13.0		ug/L		104	70 - 130	3	20

Method: 6010D - Metals (ICP)

Lab Sample ID: 380-165553-1 MS — **Client Sample ID: Well 13 Step MSD**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629703

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	380		5.00	403	4	mg/L		389	83 - 131

Lab Sample ID: 380-165553-1 MSD — **Client Sample ID: Well 13 Step MSD**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629703

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Potassium	380		5.00	407	4	mg/L		455	83 - 131	1	7

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 380-165553-1 MS
Matrix: Water
Analysis Batch: 629714

Client Sample ID: Well 13 Step MSD
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	420		2.50	449	4	mg/L		998	77 - 113
Iron	ND		0.500	ND		mg/L		NC	65 - 149
Lithium	0.29		0.500	0.893		mg/L		120	73 - 145
Magnesium	1200		2.50	1310	4	mg/L		2700	56 - 140
SiO2	29		5.38	36.6	4	mg/L		144	24 - 180
Strontium	7.6		0.500	8.55	4	mg/L		183	81 - 123

Lab Sample ID: 380-165553-1 MSD
Matrix: Water
Analysis Batch: 629714

Client Sample ID: Well 13 Step MSD
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	420		2.50	449	4	mg/L		974	77 - 113	0	11
Iron	ND		0.500	ND		mg/L		NC	65 - 149	NC	21
Lithium	0.29		0.500	0.768		mg/L		95	73 - 145	15	16
Magnesium	1200		2.50	1300	4	mg/L		2560	56 - 140	0	11
SiO2	29		5.38	36.3	4	mg/L		139	24 - 180	1	15
Strontium	7.6		0.500	8.53	4	mg/L		180	81 - 123	0	6

Lab Sample ID: MB 570-629403/1-A
Matrix: Water
Analysis Batch: 629780

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		2.0		mg/L			09/23/25 13:56	1
Iron	ND		0.50		mg/L			09/23/25 13:56	1
Lithium	ND		0.050		mg/L			09/23/25 13:56	1
Magnesium	ND		0.50		mg/L			09/23/25 13:56	1
Potassium	ND		2.0		mg/L			09/23/25 13:56	1
SiO2	ND		0.54		mg/L			09/23/25 13:56	1
Sodium	ND		2.0		mg/L			09/23/25 13:56	1
Strontium	ND		0.010		mg/L			09/23/25 13:56	1

Lab Sample ID: LCS 570-629403/2-A
Matrix: Water
Analysis Batch: 629780

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	2.50	2.42		mg/L		97	80 - 120
Iron	0.500	0.468	J	mg/L		94	80 - 120
Lithium	0.500	0.444		mg/L		89	80 - 120
Magnesium	2.50	2.35		mg/L		94	80 - 120
Potassium	5.00	4.53		mg/L		91	80 - 120
SiO2	5.38	4.90		mg/L		91	80 - 120
Sodium	5.00	4.59		mg/L		92	80 - 120
Strontium	0.500	0.460		mg/L		92	80 - 120

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-629403/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629780

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium			2.50	2.43		mg/L		97	80 - 120	0	20
Iron			0.500	0.470	J	mg/L		94	80 - 120	1	20
Lithium			0.500	0.450		mg/L		90	80 - 120	1	20
Magnesium			2.50	2.36		mg/L		94	80 - 120	0	20
Potassium			5.00	4.55		mg/L		91	80 - 120	0	20
SiO2			5.38	4.82		mg/L		90	80 - 120	2	20
Sodium			5.00	4.61		mg/L		92	80 - 120	0	20
Strontium			0.500	0.459		mg/L		92	80 - 120	0	20

Lab Sample ID: 380-165553-1 MS — **Client Sample ID: Well 13 Step MSD**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629780

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium	10000		5.00	10200	4	mg/L		1264	73 - 127		

Lab Sample ID: 380-165553-1 MSD — **Client Sample ID: Well 13 Step MSD**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629780

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	10000		5.00	10200	4	mg/L		2188	73 - 127	0	9

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-629402/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629688

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L			09/23/25 11:56	1

Lab Sample ID: LCS 570-629402/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629688

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Uranium			80.0	81.0		ug/L		101	80 - 120		

Lab Sample ID: LCSD 570-629402/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629688

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium			80.0	82.8		ug/L		104	80 - 120	2	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-612799/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 615929 — **Prep Batch: 612799**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0		mg/L		08/17/25 13:26	08/23/25 17:11	1

Lab Sample ID: LCS 570-612799/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 615929 — **Prep Batch: 612799**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
HEM: Oil and Grease			40.0	33.20		mg/L		83	78 - 114		

Lab Sample ID: LCSD 570-612799/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 615929 — **Prep Batch: 612799**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease			40.0	31.60		mg/L		79	78 - 114	5	18

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-612225/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612614 — **Prep Batch: 612225**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		08/15/25 13:34	08/16/25 12:13	1

Lab Sample ID: LCS 570-612225/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612614 — **Prep Batch: 612225**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Kjeldahl Nitrogen			5.00	4.74		mg/L		95	90 - 110		

Lab Sample ID: LCSD 570-612225/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612614 — **Prep Batch: 612225**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen			5.00	4.85		mg/L		97	90 - 110	2	20

Method: 410.4 - COD

Lab Sample ID: MB 570-612765/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612784 — **Prep Batch: 612765**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L		08/17/25 08:34	08/17/25 11:53	1

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 570-612765/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612784 — **Prep Batch: 612765**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	50.0	48.3		mg/L		97	90 - 110

Lab Sample ID: LCSD 570-612765/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612784 — **Prep Batch: 612765**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	50.0	48.3		mg/L		97	90 - 110	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 570-614853/11 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 614853

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		5.0	mg/L			08/20/25 18:00	1
Bicarbonate (as CaCO3)	ND		5.0	mg/L			08/20/25 18:00	1
Carbonate (as CaCO3)	ND		5.0	mg/L			08/20/25 18:00	1
Hydroxide (as CaCO3)	ND		5.0	mg/L			08/20/25 18:00	1

Lab Sample ID: LCS 570-614853/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 614853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total (As CaCO3)	106	101		mg/L		95	78 - 110

Lab Sample ID: LCSD 570-614853/10 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 614853

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	106	97.9		mg/L		92	78 - 110	3	10

Method: SM 2520B - Salinity

Lab Sample ID: LCS 570-617865/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 617865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Salinity	35.0	35.6		psu		102	95 - 105

Lab Sample ID: LCSD 570-617865/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 617865

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Salinity	35.0	35.7		psu		102	95 - 105	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-612413/1
Matrix: Water
Analysis Batch: 612413

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			08/15/25 19:34	1

Lab Sample ID: LCS 570-612413/2
Matrix: Water
Analysis Batch: 612413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	952		mg/L		95	85 - 110		

Lab Sample ID: LCSD 570-612413/3
Matrix: Water
Analysis Batch: 612413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	994		mg/L		99	85 - 110	4	10

Lab Sample ID: 380-165553-1 DU
Matrix: Water
Analysis Batch: 612413

Client Sample ID: Well 13 Step MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	37000			37000		mg/L				0.3	8

Method: SM 5310C - TOC

Lab Sample ID: MB 570-622571/62
Matrix: Water
Analysis Batch: 622571

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic	ND		0.50		mg/L			09/09/25 21:06	1

Lab Sample ID: LCS 570-622571/63
Matrix: Water
Analysis Batch: 622571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Carbon, Non-Purgable Organic			5.03	5.00		mg/L		99	85 - 115		

Lab Sample ID: LCSD 570-622571/64
Matrix: Water
Analysis Batch: 622571

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic			5.03	5.01		mg/L		100	85 - 115	0	15

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-732651/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732927 — **Prep Batch: 732651**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	0.2027	U	0.537	0.537	4.00	0.926	pCi/L	08/19/25 08:42	08/21/25 21:02	1

Lab Sample ID: LCSB 160-732651/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732927 — **Prep Batch: 732651**

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Beta	69.4	74.48		7.99	4.00	0.919	pCi/L	107	75 - 125

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-732650/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 735578 — **Prep Batch: 732650**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1628	U	0.178	0.179	1.00	0.284	pCi/L	08/19/25 08:29	09/11/25 18:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*08/19/25 08:29*	*09/11/25 18:48*	*1*

Lab Sample ID: LCS 160-732650/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 735578 — **Prep Batch: 732650**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.57	9.211		1.24	1.00	0.308	pCi/L	96	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*86.6*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-732653/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 735577 — **Prep Batch: 732653**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.5131	U G	0.472	0.475	1.00	1.01	pCi/L	08/19/25 08:46	09/11/25 15:57	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*08/19/25 08:46*	*09/11/25 15:57*	*1*
Y Carrier	*77.8*		*30 - 110*	*08/19/25 08:46*	*09/11/25 15:57*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-732653/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 735577 — **Prep Batch: 732653**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.08	9.816		1.35	1.00	0.592	pCi/L	108	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*86.6*		*30 - 110*
Y Carrier	*81.5*		*30 - 110*

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-732130/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 733702 — **Prep Batch: 732130**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.4077		0.216	0.219	3.00	0.323	pCi/L	08/15/25 08:49	08/26/25 14:46	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*82.8*		*30 - 110*	*08/15/25 08:49*	*08/26/25 14:46*	*1*
Y Carrier	*87.5*		*30 - 110*	*08/15/25 08:49*	*08/26/25 14:46*	*1*

Lab Sample ID: LCS 160-732130/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 733702 — **Prep Batch: 732130**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Strontium-90			6.93	7.436		0.808	3.00	0.282	pCi/L	107	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*81.0*		*30 - 110*
Y Carrier	*91.6*		*30 - 110*

Lab Sample ID: LCSD 160-732130/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 733702 — **Prep Batch: 732130**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Strontium-90			6.93	7.293		0.815	3.00	0.308	pCi/L	105	75 - 125	2	25

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Sr Carrier	*74.7*		*30 - 110*
Y Carrier	*89.7*		*30 - 110*

QC Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Method: SM7110C - Gross Alpha by Co-Precipitation

Lab Sample ID: MB 160-732656/1-A
Matrix: Water
Analysis Batch: 732942

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 732656

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.08838	U	0.602	0.602	3.00	1.16	pCi/L	08/19/25 08:48	08/21/25 21:20	1

Lab Sample ID: LCS 160-732656/2-A
Matrix: Water
Analysis Batch: 732942

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 732656

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Alpha			39.5	36.11		4.90	3.00	0.989	pCi/L	91	75 - 125		

Lab Sample ID: LCSD 160-732656/8-A
Matrix: Water
Analysis Batch: 732928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 732656

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Gross Alpha			39.5	47.67		6.61	3.00	1.08	pCi/L	121	75 - 125	28	25

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

GC/MS VOA

Analysis Batch: 611135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	624.1	
MB 570-611135/5	Method Blank	Total/NA	Water	624.1	
LCS 570-611135/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-611135/3	Lab Control Sample Dup	Total/NA	Water	624.1	

Analysis Batch: 614667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1 - RA	Well 13 Step MSD	Total/NA	Water	624.1	
MB 570-614667/7	Method Blank	Total/NA	Water	624.1	
LCS 570-614667/1003	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-614667/4	Lab Control Sample Dup	Total/NA	Water	624.1	

Analysis Batch: 614674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1 - RA2	Well 13 Step MSD	Total/NA	Water	624.1	
MB 570-614674/7	Method Blank	Total/NA	Water	624.1	
LCS 570-614674/1003	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-614674/4	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 611616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	625.1	
MB 570-611616/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-611616/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-611616/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 613693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	625.1	611616
MB 570-611616/1-A	Method Blank	Total/NA	Water	625.1	611616
LCS 570-611616/2-A	Lab Control Sample	Total/NA	Water	625.1	611616
LCSD 570-611616/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	611616

Prep Batch: 687067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	625.1	
MB 410-687067/1-A	Method Blank	Total/NA	Water	625.1	
LCS 410-687067/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 410-687067/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 687673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	625.1 SIM	687067
MB 410-687067/1-A	Method Blank	Total/NA	Water	625.1 SIM	687067
LCS 410-687067/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	687067
LCSD 410-687067/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	687067

GC VOA

Analysis Batch: 615790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	8015B	
MB 570-615790/5	Method Blank	Total/NA	Water	8015B	
LCS 570-615790/3	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-615790/4	Lab Control Sample Dup	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 611606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	608	
MB 570-611606/1-A	Method Blank	Total/NA	Water	608	
LCS 570-611606/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 570-611606/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-611606/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 570-611606/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 612576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	608.3	611606
MB 570-611606/1-A	Method Blank	Total/NA	Water	608.3	611606
LCS 570-611606/4-A	Lab Control Sample	Total/NA	Water	608.3	611606
LCSD 570-611606/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	611606

Prep Batch: 612783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	3510C	

Analysis Batch: 615049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	608.3	611606
MB 570-611606/1-A	Method Blank	Total/NA	Water	608.3	611606
LCS 570-611606/2-A	Lab Control Sample	Total/NA	Water	608.3	611606
LCSD 570-611606/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	611606

Analysis Batch: 616107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	8015B	612783

Prep Batch: 686677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	8011	
MB 410-686677/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-686677/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-686677/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 686773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	8011	686677
MB 410-686677/1-A	Method Blank	Total/NA	Water	8011	686677
LCS 410-686677/2-A	Lab Control Sample	Total/NA	Water	8011	686677
LCSD 410-686677/3-A	Lab Control Sample Dup	Total/NA	Water	8011	686677

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

GC Semi VOA

Prep Batch: 689808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	8015 DAI Prep	
MB 410-689808/1-A	Method Blank	Total/NA	Water	8015 DAI Prep	
LCS 410-689808/2-A	Lab Control Sample	Total/NA	Water	8015 DAI Prep	

Analysis Batch: 689815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	8015C	689808
MB 410-689808/1-A	Method Blank	Total/NA	Water	8015C	689808
LCS 410-689808/2-A	Lab Control Sample	Total/NA	Water	8015C	689808

HPLC/IC

Analysis Batch: 611115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	300.0	
380-165553-1 - DL	Well 13 Step MSD	Total/NA	Water	300.0	
MB 570-611115/5	Method Blank	Total/NA	Water	300.0	
LCS 570-611115/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-611115/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 9820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Dissolved	Water	1640	
MB 350-9820/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-9820/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-9820/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 9831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Dissolved	Water	1631E	
MB 350-9831/38	Method Blank	Total/NA	Water	1631E	
MB 350-9831/39	Method Blank	Total/NA	Water	1631E	
MB 350-9831/40	Method Blank	Total/NA	Water	1631E	
LCS 350-9831/41	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-9831/42	Lab Control Sample Dup	Total/NA	Water	1631E	
380-165553-1 MS	Well 13 Step MSD	Dissolved	Water	1631E	
380-165553-1 MSD	Well 13 Step MSD	Dissolved	Water	1631E	

Analysis Batch: 9857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Dissolved	Water	1640	9820
MB 350-9820/2-A	Method Blank	Total/NA	Water	1640	9820
LCS 350-9820/3-A	Lab Control Sample	Total/NA	Water	1640	9820
LCSD 350-9820/4-A	Lab Control Sample Dup	Total/NA	Water	1640	9820

Filtration Batch: 629402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Dissolved	Water	Filtration	
MB 570-629402/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-629402/2-A	Lab Control Sample	Dissolved	Water	Filtration	

Metals (Continued)

Filtration Batch: 629402 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-629402/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Filtration Batch: 629403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Dissolved	Water	Filtration	
MB 570-629403/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-629403/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-629403/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	
380-165553-1 MS	Well 13 Step MSD	Dissolved	Water	Filtration	
380-165553-1 MSD	Well 13 Step MSD	Dissolved	Water	Filtration	

Analysis Batch: 629688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Dissolved	Water	6020	629402
MB 570-629402/1-A	Method Blank	Dissolved	Water	6020	629402
LCS 570-629402/2-A	Lab Control Sample	Dissolved	Water	6020	629402
LCSD 570-629402/3-A	Lab Control Sample Dup	Dissolved	Water	6020	629402

Analysis Batch: 629703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Dissolved	Water	6010D	629403
380-165553-1 MS	Well 13 Step MSD	Dissolved	Water	6010D	629403
380-165553-1 MSD	Well 13 Step MSD	Dissolved	Water	6010D	629403

Analysis Batch: 629714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Dissolved	Water	6010D	629403
380-165553-1 MS	Well 13 Step MSD	Dissolved	Water	6010D	629403
380-165553-1 MSD	Well 13 Step MSD	Dissolved	Water	6010D	629403

Analysis Batch: 629780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Dissolved	Water	6010D	629403
MB 570-629403/1-A	Method Blank	Dissolved	Water	6010D	629403
LCS 570-629403/2-A	Lab Control Sample	Dissolved	Water	6010D	629403
LCSD 570-629403/3-A	Lab Control Sample Dup	Dissolved	Water	6010D	629403
380-165553-1 MS	Well 13 Step MSD	Dissolved	Water	6010D	629403
380-165553-1 MSD	Well 13 Step MSD	Dissolved	Water	6010D	629403

General Chemistry

Prep Batch: 612225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	351.2	
MB 570-612225/3-A	Method Blank	Total/NA	Water	351.2	
LCS 570-612225/4-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-612225/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	

Analysis Batch: 612413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 612413 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-612413/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-612413/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-612413/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
380-165553-1 DU	Well 13 Step MSD	Total/NA	Water	SM 2540C	

Analysis Batch: 612614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	351.2	612225
MB 570-612225/3-A	Method Blank	Total/NA	Water	351.2	612225
LCS 570-612225/4-A	Lab Control Sample	Total/NA	Water	351.2	612225
LCSD 570-612225/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	612225

Prep Batch: 612765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	410.4	
MB 570-612765/3-A	Method Blank	Total/NA	Water	410.4	
LCS 570-612765/4-A	Lab Control Sample	Total/NA	Water	410.4	
LCSD 570-612765/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 612784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	410.4	612765
MB 570-612765/3-A	Method Blank	Total/NA	Water	410.4	612765
LCS 570-612765/4-A	Lab Control Sample	Total/NA	Water	410.4	612765
LCSD 570-612765/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	612765

Prep Batch: 612799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	1664A	
MB 570-612799/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-612799/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-612799/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 614853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	SM 2320B	
MB 570-614853/11	Method Blank	Total/NA	Water	SM 2320B	
LCS 570-614853/9	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 570-614853/10	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 615929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	1664A	612799
MB 570-612799/1-A	Method Blank	Total/NA	Water	1664A	612799
LCS 570-612799/2-A	Lab Control Sample	Total/NA	Water	1664A	612799
LCSD 570-612799/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	612799

Analysis Batch: 617865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	SM 2520B	
LCS 570-617865/3	Lab Control Sample	Total/NA	Water	SM 2520B	

General Chemistry (Continued)

Analysis Batch: 617865 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-617865/4	Lab Control Sample Dup	Total/NA	Water	SM 2520B	

Analysis Batch: 622571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	SM 5310C	
MB 570-622571/62	Method Blank	Total/NA	Water	SM 5310C	
LCS 570-622571/63	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 570-622571/64	Lab Control Sample Dup	Total/NA	Water	SM 5310C	

Rad

Prep Batch: 732130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	PrecSep-7	
MB 160-732130/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-732130/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	
LCSD 160-732130/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-7	

Prep Batch: 732650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	PrecSep-21	
MB 160-732650/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-732650/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 732651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	Evaporation	
MB 160-732651/1-A	Method Blank	Total/NA	Water	Evaporation	
LCSB 160-732651/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

Prep Batch: 732653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	PrecSep_0	
MB 160-732653/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-732653/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 732656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165553-1	Well 13 Step MSD	Total/NA	Water	Coprecipitation	
MB 160-732656/1-A	Method Blank	Total/NA	Water	Coprecipitation	
LCS 160-732656/2-A	Lab Control Sample	Total/NA	Water	Coprecipitation	
LCSD 160-732656/8-A	Lab Control Sample Dup	Total/NA	Water	Coprecipitation	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step MSD

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165553-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	611135	VYF4	EET CAL 4	08/14/25 00:09
Total/NA	Analysis	624.1	RA2	1	614674	U1MC	EET CAL 4	08/21/25 13:51
Total/NA	Analysis	624.1	RA	1	614667	U1MC	EET CAL 4	08/21/25 12:58
Total/NA	Prep	625.1			611616	OAJ3	EET CAL 4	08/14/25 12:40
Total/NA	Analysis	625.1		1	613693	AX7Z	EET CAL 4	08/19/25 14:41
Total/NA	Prep	625.1			687067	QJZ6	ELLE	08/18/25 15:45
Total/NA	Analysis	625.1 SIM		1	687673	UJM0	ELLE	08/20/25 00:43
Total/NA	Analysis	8015B		1	615790	W4LC	EET CAL 4	08/23/25 14:17
Total/NA	Prep	608			611606	S4EA	EET CAL 4	08/14/25 12:24
Total/NA	Analysis	608.3		1	615049	N5Y3	EET CAL 4	08/21/25 21:24
Total/NA	Prep	608			611606	S4EA	EET CAL 4	08/14/25 12:24
Total/NA	Analysis	608.3		1	612576	SP9M	EET CAL 4	08/16/25 16:00
Total/NA	Prep	8011			686677	USL7	ELLE	08/18/25 00:19
Total/NA	Analysis	8011		1	686773	M6UH	ELLE	08/18/25 10:57
Total/NA	Prep	3510C			612783	TVD6	EET CAL 4	08/17/25 11:50
Total/NA	Analysis	8015B		1	616107	H6FE	EET CAL 4	08/25/25 10:35
Total/NA	Prep	8015 DAI Prep			689808	X875	ELLE	08/24/25 11:58
Total/NA	Analysis	8015C		100	689815	LXF2	ELLE	08/24/25 19:23
Total/NA	Analysis	300.0		20	611115	U9EE	EET CAL 4	08/13/25 17:20
Total/NA	Analysis	300.0	DL	400	611115	U9EE	EET CAL 4	08/13/25 17:36
Dissolved	Analysis	1631E		1	9831	COW	EET SSM	09/24/25 14:41
Dissolved	Prep	1640			9820	V1R	EET SSM	09/25/25 14:15
Dissolved	Analysis	1640		1	9857	V1R	EET SSM	09/25/25 14:36
Dissolved	Filtration	Filtration			629403	JP8N	EET CAL 4	09/23/25 06:35
Dissolved	Analysis	6010D		5	629703	VZ0K	EET CAL 4	09/23/25 12:53
Dissolved	Filtration	Filtration			629403	JP8N	EET CAL 4	09/23/25 06:35
Dissolved	Analysis	6010D		5	629714	VZ0K	EET CAL 4	09/23/25 12:42
Dissolved	Filtration	Filtration			629403	JP8N	EET CAL 4	09/23/25 06:35
Dissolved	Analysis	6010D		50	629780	VZ0K	EET CAL 4	09/23/25 14:02
Dissolved	Filtration	Filtration			629402	JP8N	EET CAL 4	09/23/25 06:34
Dissolved	Analysis	6020		20	629688	C0YH	EET CAL 4	09/23/25 12:23
Total/NA	Prep	1664A			612799	S7HP	EET CAL 4	08/17/25 13:26
Total/NA	Analysis	1664A		1	615929	LM3A	EET CAL 4	08/23/25 17:11
Total/NA	Prep	351.2			612225	ZL7L	EET CAL 4	08/15/25 13:34
Total/NA	Analysis	351.2		1	612614	ZL7L	EET CAL 4	08/16/25 12:13
Total/NA	Prep	410.4			612765	TP6R	EET CAL 4	08/17/25 08:34
Total/NA	Analysis	410.4		1	612784	TP6R	EET CAL 4	08/17/25 11:54
Total/NA	Analysis	SM 2320B		1	614853	LNW3	EET CAL 4	08/20/25 20:28
Total/NA	Analysis	SM 2520B		1	617865	GG0B	EET CAL 4	08/27/25 18:00
Total/NA	Analysis	SM 2540C		1	612413	S7PH	EET CAL 4	08/15/25 19:34
Total/NA	Analysis	SM 5310C		1	622571	TBF6	EET CAL 4	09/10/25 01:46
Total/NA	Prep	Evaporation			732651	OGC	EET SL	08/19/25 08:42
Total/NA	Analysis	900.0		1	732927	SWS	EET SL	08/21/25 21:05

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step MSD

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165553-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			732650	JTR	EET SL	08/19/25 08:29
Total/NA	Analysis	903.0		1	735578	SWS	EET SL	09/11/25 18:49
Total/NA	Prep	PrecSep_0			732653	JTR	EET SL	08/19/25 08:46
Total/NA	Analysis	904.0		1	735577	SWS	EET SL	09/11/25 11:55
Total/NA	Prep	PrecSep-7			732130	JTR	EET SL	08/15/25 08:49
Total/NA	Analysis	905		1	733702	SWS	EET SL	08/26/25 14:48
Total/NA	Analysis	Ra226_Ra228 Pos		1	735340	SCB	EET SL	09/11/25 13:58
Total/NA	Prep	Coprecipitation			732656	OGC	EET SL	08/19/25 08:48
Total/NA	Analysis	SM7110C		1	732928	CMM	EET SL	08/21/25 21:30

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	08-27-25
A2LA	Dept. of Energy	0001.01	08-27-25
A2LA	ISO/IEC 17025	0001.01	08-27-25
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-26
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	08-27-25
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	09-15-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA011	06-30-26
New York	NELAP	10670	09-09-25
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	09-01-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	08-24-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	09-14-25
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	09-03-25
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	08-27-25

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-08-26
Florida	NELAP	E87575	06-30-26
Louisiana (All)	NELAP	03073	07-01-26
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-26
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167	07-08-26
US Fish & Wildlife	US Federal Programs	A20571	06-30-26
USDA	US Federal Programs	525-23-4-22573	01-24-28
Washington	State	C788	07-13-26
Wisconsin	State	399133460	08-31-26

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	07-01-26
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	10-01-26
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	12-31-25
Oregon	NELAP	4157	09-01-26
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25 *
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-31-26
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	ELLE
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
608.3	Organochlorine Pesticides in Water	EPA	EET CAL 4
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CAL 4
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
8015C	Glycols- Direct Injection (GC/FID)	SW846	ELLE
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1640	Metals (ICPMS)	EPA	EET SSM
6010D	Metals (ICP)	SW846	EET CAL 4
6020	Metals (ICP/MS)	SW846	EET CAL 4
1664A	HEM and SGT-HEM	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
410.4	COD	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EET CAL 4
SM 2520B	Salinity	SM	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
SM 5310C	TOC	SM	EET CAL 4
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
SM7110C	Gross Alpha by Co-Precipitation	SM	EET SL
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
410.4	COD	EPA	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	ELLE
8011	Microextraction	SW846	ELLE
8015 DAI Prep	Preparation, Direct Aqueous Injection	SW846	ELLE
Coprecipitation	Preparation, Coprecipitation	None	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
Filtration	Sample Filtration	None	EET CAL 4
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Method	Method Description	Protocol	Laboratory

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165553-1
SDG: Well 13 Step

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-165553-1	Well 13 Step MSD	Water	08/11/25 10:00	08/12/25 10:22	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808.284.3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808.284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300_SM2520B, SM4500-CO2E, Br, Cl, F, SO4, Si, Salinity, Alkalinity	351.2- Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900.0 - Gross Beta Only	903.0 Ra226, 905_Sr90	904.0 - Radium-228	Ra226_228GFPC_P - Lucet Method	1640 - dissolved Metals (46)-Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Ag, V, Zn	7470A - Dissolved Mercury, Total	6010D - Dissolved Metals (6): Ca, Fe, Li, Mg, K, Na, Sr	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:		X	X	N	S	G	S	D	D	D	D	N	D	A	D	X	
Well 13 Step MSD	8/11/25	10:00	G	Saltwater	N	Y	1	1	1	3	1	1	1	1	1	1	1	1	2	L

380-165553 COC

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX Priority Overnight 3920 1201 2007

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	8/11/25 2:00	INTERA Inc		08/12/25 10:22	ECAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 757/1 2.5°-0.0°=2.5° PARTIALLY

Ver 01/16/2019

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808.284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808.284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_OALCD_Total Dissolved Solids (TDS)	624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	625.1 SVOCs, 608.3 Organochlorine Pesticides, PCBs	8015B/8260D_Hawaii GRO C4-12	8015B_Hawaii DRO C8-24, CRO C24-44	1664A Oil and Grease	Extra volume - Please hold	625.1 Sim 1,4-dioxane	8011 Ethylene Dibromide	6020_Uranium	8015C Ethylene Glycol	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	A	N	A	N	S	D	N	A	N	N		
Well 13 Stp MSD	8/11/25	10:00	G	Saltwater	N	Y	1	3	1	2	2	1	1	2	2	1	2	2	

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time.	Method of Shipment: FEDEX Priority Overnight 3920 1201 2007		
Relinquished by:	Date/Time: 8/11/25 1:06	Company: INTERA Inc	Received by:	Date/Time: 08/12/25 10:22	Company: EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 751A 2.5°-0.0°-2.5° REACTIVATION.		

Ver: 01/16/2019

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808.284.3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300, SM2520B, SM4500_SIO2: Br, Cl, F, SO4, Si, Salinity, Alkalinity	~~354.2 - Total Kjeldahl Nitrogen (TKN)~~	410.4_LL - Low Level Chemical Oxygen Demand (COD)	~~SM5310D - Total Organic Carbon (TOC)~~	SM7110C - Gross Alpha by Co-Precip	900.0 - Gross Beta Only	903.0 Ra226, 905_Sr90	904.0 - Radium-228	Ra226_228GFPC_P - Local Method	1640 - dissolved Metals (15): Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Ag, V, Zn	1631E - Dissolved Mercury, Total	~~6010B - Dissolved Metals (6): Ca, Fe, Li, Mg, K, Na, Sr~~	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:		X	X	N	S	S	S	D	D	D	D	N	D	A	D	X	
Well 13 Step MSD	8/11/25	10:00	G	Saltwater	N	Y	2	1	1	3	1	1	1	1	0	1	1	1	16	

Tracking #: 3920 1201 2040

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III, IV, Other (specify)	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time	Method of Shipment: FEDEX Priority Overnight

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	8/11/25 2:00	INTERA Inc		8/12/25 10:22	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 4.0 / 4 / 3.5-0.1-2.3

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Ver: 01/16/2019

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808.284.3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	~~624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid held time flag)~~	625.1 SVOCs, 608.3 Organochlorine Pesticides, PCBs	~~8045/8270D_Hawaii GRO 04-12~~	~~8015B_Hawaii DRO C8-44, ORO C24-44~~	~~1664A Oil and Grease~~	Extra volume- Please hold	~~625.1 Sm 1,4 dioxane~~	~~6011 Ethylene Dibromide~~	6020- Uranium	~~8015C Ethylene Glycol~~		Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Codes:		X	X	N	A	N	A	N	S	D	N	A	N	N		X	
Well 13 Step MSD	8/11/25	10:00	G	Saltwater	N	Y	1	~~3~~ 2	2	2	12	1	1	12	2	1	~~1~~		16	

625.1 Sm 1,4 dioxane

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX Priority Overnight

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	8/11/25 2:00	INTERA Inc	4401	8/12/25 10:22	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.3

Ver 01/16/2019

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)

Client Contact:	Shipping/Receiving
Company:	TestAmerica Laboratories, Inc.
Address:	13715 Rider Trail North, ,
City:	Earth City
State, Zip:	MO, 63045
Phone:	314-298-8566(Tel) 314-298-8757(Fax)
Email:	N/A
Project Name:	Kalealoa Desalination Project
Site:	N/A
Sampler:	N/A
Phone:	N/A
Due Date Requested:	9/9/2025
TAT Requested (days):	N/A
PO #:	N/A
WO #:	N/A
Project #:	38009251
SSOW#:	N/A
Lab PM:	Lopez, Maria
E-Mail:	Maria.Lopez@et.eurofinsus.com
Carrier Tracking No(s):	N/A
State of Origin:	Hawaii
Accreditations Required (See note):	ISO/IEC 17025 - A2LA
COC No:	380-240058.1
Page:	Page 1 of 1
Job #:	380-165553-1
Preservation Codes:	-
Other:	N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM7110C/COPRECIPGross Alpha by Co-Precip	900.0/EvaporationGross Beta Only	903.0/PrecSep_21Radium-226	904.0/PrecSep_0Radium-228	Ra226_228GFPC_P	905_Sr90/PrecSep_7Strontium-90	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
Well 13 Step MSD (380-165553-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	X	X	5	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by: (Quillen)	Date/Time: 8/13/25 10:42	Company	Received by:	Date/Time: 0830 AUG 14 2025	Company
Relinquished by:	Date/Time:	Company	Received by: Cheyenne Forrest	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

9/29/2025

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-240052.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165553-1
Address: 5755 8th Street East, ,	Due Date Requested: 9/9/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Well 13 Step MSD (380-165553-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	2	High TDS sample, dilute accordingly

small blue Coleman

Therm. ID: SC04 Cust. Seal: (Y) / N
Uncorr./Corr. Temp: 1.8 / 1.9 °C
Delivery: UPS / (FedEx) / Other: _____
Ice Type: Blue / Dry / (Wet) / None
Label Ver.: JS 8/14/25 Packing: Bubble

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Cortlyn V	8/13/25 8:45		Jesse Singh	8/14/25 0:9:45	EETN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

FedEx PO Trk# 4612 8638 5891

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

9/29/2025

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 570-470462.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165553-1
Address: 5755 8th Street East, ,	Due Date Requested: 9/23/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Therm. ID: SC0 2 Cust. Seal: (Y) / N
Uncorr./Corr. Temp: 18.2 / 18.1 °C
Delivery: UPS / FedEx / Other: ____
Ice Type: Blue / Dry / Wet / None
Label Ver.: R Packing: D

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total	1640/FIELD_FLTRD(MOD) Custom List 7: 19+ Metals	1631E/FIELD_FLTRDMercury, Total	Total Number of Containers	Special Instructions/Note:
			Preservation Code:									
Well 13 Step MSD (380-165553-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	1	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification 4803 1217 5137 *Level 1 radioactive*		***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*	
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2	Special Instructions/QC Requirements:	
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 9-22-25 15-	Company: EC	Received by:	Date/Time: 9/23/25 9:40	Company: EETN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-240048.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165553-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 9/9/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 13 Step MSD (380-165553-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	7	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: MAB	Date/Time: 8/14/25 0940	Company ELLET

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: R:2.4 C:1.0

Ver: 10/10/2024

9/29/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Eu

Loc: 380
165553

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-240040.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165553-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/9/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	608.3_PCB/608_Prep_PCBRoutine PCB Aroclor List	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	Nitrogen,TotalTotal Nitrogen	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	8015B_GRO/5030C(MOD) Gasoline Range Organics	8015B_DRO/3510C_LVIDRO (C10-C28)	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
Well 13 Step MSD (380-165553-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	22	High TDS sample, dilute accordingly

380-165553 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Xn	8/13/25 1130	EBA		8/13/25 11:30	EBA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.7/0.7 IR92

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-240040.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165553-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/9/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	2540C_CalcdTotal Dissolved Solids (TDS)	5310CTOC, Standard analysis, 3 replicates	6010D/3005A(MOD) Custom 6010D Metals List	6020/3005A(MOD) Custom 6020 Metals List	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
Well 13 Step MSD (380-165553-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	X	22	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8/13/25 1130	EEA	[signature]	8/13/25 11:30	EEC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Chain of Custody Record

eurofins

Loc: 380
165553

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 410-3902110.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165553-1
Address: 2841 Dow Avenue, Suite 100,	Due Date Requested: 9/9/2025			Preservation Cc N - None
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3- (Hold)	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	608.3_PCB/608_Prep_PCBRoutine PCB Aroclor List	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	Nitrogen,TotalTotal Nitrogen	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	8015B_GRO/5030C(MOD) Gasoline Range Organics	8015B_DRO/3510C_LVIDRO (C10-C28)	Total Number of containers	Special I
			Preservation Code:				N	N	N	N	N	N	N	N	N	N	N	N	N		
Well 13 Step MSD (380-165553-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	2	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Environment Testing, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Environment Testing, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Environment Testing, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Lancaster Laboratories Environment Testing, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Kristin Ramos	8/15/25 1513	ELLET	fedex		
fedex				8/16/25 10:00	EC

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7/2.7 IR92

380-165553 Chain of Custody

Ver: 10/10/2024

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 410-3902110.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165553-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/9/2025			Preservation Codes: N - None
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	2540C_CalcdTotal Dissolved Solids (TDS)	5310CTOC, Standard analysis, 3 replicates	6010D/3005A(MOD) Custom 6010D Metals List	6020/3005A(MOD) Custom 6020 Metals List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N		
Well 13 Step MSD (380-165553-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	X	2	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Environment Testing, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Environment Testing, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Environment Testing, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Lancaster Laboratories Environment Testing, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Kris Sears	8/15/25 1513	ELLET	fedex		
Relinquished by: fedex	Date/Time:	Company	Received by:	Date/Time: 8/16/25 10:00	Company EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.2 R.A FJ262 [illegible]

Ver: 10/10/2024

9/29/2025

eurofins | Environment Testing

Date:	8/14/2025
End Time:	21:40
KI Paper Lot:	N/A
Analyst:	JS
Pipette:	N/A

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	104127
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-165553-N-1	A	Y	5/2	

JS 8/14/25

eurofins | Environment Testing

Date:	8/14/2025
End Time:	21:48
pH Paper Lot:	HC457271
Analyst:	JS
Pipette:	MP_TM816

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	83141
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-165553-M-1	>2	<2	A	8.725	total 1648

eurofins | Environment Testing

Date:	9/23/2025
End Time:	14:15
pH Paper Lot:	hc441704
Analyst:	VL
Pipette:	NO

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	107605
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-165553-AJ-1	<2	NO	NO	NO	NO

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165553-1
SDG Number: Well 13 Step

Login Number: 165553
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165553-1
SDG Number: Well 13 Step

Login Number: 165553
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 08/13/25 12:34 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165553-1
SDG Number: Well 13 Step

Login Number: 165553
List Number: 6
Creator: Ferreira, Bruno

List Source: Eurofins Calscience
List Creation: 08/18/25 11:48 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165553-1
SDG Number: Well 13 Step

Login Number: 165553
List Number: 7
Creator: Le, Sunny

List Source: Eurofins Calscience
List Creation: 09/23/25 11:01 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165553-1
SDG Number: Well 13 Step

Login Number: 165553
List Number: 3
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 08/14/25 11:59 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165553-1
SDG Number: Well 13 Step

Login Number: 165553
List Number: 5
Creator: Singh, Jaskaran

List Source: Eurofins Seattle Specialty Metals
List Creation: 08/14/25 10:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165553-1
SDG Number: Well 13 Step

Login Number: 165553
List Number: 4
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 08/14/25 11:55 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 9/29/2025 9:28:16 PM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 13 Step

JOB NUMBER

380-165557-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Authorized for release by
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Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 9
Client Sample Results 10
Surrogate Summary 21
Tracer Carrier Summary 24
QC Sample Results 25
QC Association Summary 59
Lab Chronicle 66
Certification Summary 68
Method Summary 71
Sample Summary 73
Chain of Custody 74
Field Data Sheets 87
Receipt Checklists 90

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Rad

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-165557-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 8/12/2025 10:22 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.6°C and 2.6°C.

Receipt Exceptions
Samples out of preservation hold time

The following samples were collected in an improper container: Well 13 Step (380-165557-1) and Trip Blank (380-165557-2). The client was contacted regarding this issue, and the laboratory was instructed to proceed with analysis.

GC/MS VOA
Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-611135. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 570-611414. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following sample was received preserved with hydrochloric acid: Trip Blank (380-165557-2). The requested target analyte list contains 2-Chloroethyl vinyl ether and/or Acrolein, which are acid-labile compounds that degrade in an acidic medium.

Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-614667. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: The following unpreserved vials were received in analyzing laboratory outside of holding time: Well 13 Step (380-165557-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-611616. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 625.1

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015C_DAI_GLY: The following sample was diluted due to the nature of the sample matrix: Well 13 Step (380-165557-1). Elevated reporting limits (RLs) are provided.

Method 8011: The surrogate recovery for the method blank associated with preparation batch 410-686677 and analytical batch 410-686773 was outside the upper control limits. The method blank was non-detect, therefore the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
Method 608.3_PCB: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-611606.
Method 608.3 Pest/PCB

Method 608.3_PCB: The laboratory control sample duplicate (LCSD) for preparation batch 570-611606 and analytical batch 570-612576 recovered outside control limits for the following analytes: Aroclor-1260. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 608.3_PCB: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-611606 and analytical batch 570-612576 recovered outside control limits for the following analytes: Aroclor-1260.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
Method 608.3_Pest: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-611606.
Method 608.3 Pest/PCB

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: Well 13 Step (380-165557-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: Well 13 Step (380-165557-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6020 - Dissolved: The following samples were not filtered within 15 minutes of sample collection as required by the method: Well 13 Step (380-165557-1), (380-165557-A-1 MS) and (380-165557-A-1 MSD). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6020 - Dissolved: The following sample was diluted due to the nature of the sample matrix: Well 13 Step (380-165557-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-612799. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

EPA 1664 A/B

Method 5310C: The following sample was analyzed outside of analytical holding time due to a sample scheduling error: Well 13 Step (380-165557-1).

Method SM4500_NO3_E: The following sample was analyzed outside of analytical holding time due to requested out of holding time: Well 13 Step (380-165557-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 900.0: Gross Alpha Beta Batch 732651

The detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: Well 13 Step (380-165557-1), (880-61539-B-1-A) and (880-61539-B-1-D DU). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium-228 batch 732653
The detection goal was not met for the following sample due to the reduced sample volume in prep attributed to the presence of matrix interferences: Well 13 Step (380-165557-1). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium 228 Batch 732653

The MDC for the following sample(s) is flagged as failing; The laboratory considers the detection goal (requested limit) met when rounding to the appropriate place value. (MB 160-732653/1-A)

Method 905_Sr90: Strontium-90 Prep Batch 160-732130

The Strontium carrier recovery is outside the lower control limit (30%) for the following sample: Well 13 Step (380-165557-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 905_Sr90: Strontium 90 Batch 732130

The Sr Carrier recovery is outside the lower control limit (30%) for the following sample: Well 13 Step (380-165557-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 905_Sr90: Strontium 90 Batch 732130

The detection goal was not met for the following sample due to a reduced sample volume used in prep attributed to the presence of matrix interferences. Well 13 Step (380-165557-1)

Method SM7110C: GAB Prep Batch 160-732656

Insufficient sample volume was available to perform a sample duplicate for the following samples: Well 13 Step (380-165557-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step — Lab Sample ID: 380-165557-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bromide	59		2.0		mg/L	20		300.0	Total/NA
Chloride - DL	20000		400		mg/L	400		300.0	Total/NA
Sulfate - DL	2400		400		mg/L	400		300.0	Total/NA
Mercury	0.83		0.50		ng/L	1		1631E	Dissolved
Cadmium	0.033		0.020		ug/L	1		1640	Dissolved
Copper	6.0		0.50		ug/L	1		1640	Dissolved
Lead	0.13		0.050		ug/L	1		1640	Dissolved
Zinc	48		1.0		ug/L	1		1640	Dissolved
Barium	25		0.50		ug/L	1		1640	Dissolved
Iron	22		5.0		ug/L	1		1640	Dissolved
Manganese	6.5		0.050		ug/L	1		1640	Dissolved
Vanadium	2.1		1.0		ug/L	1		1640	Dissolved
Calcium	440		10		mg/L	5		6010D	Dissolved
Lithium	0.37		0.25		mg/L	5		6010D	Dissolved
Magnesium	1300		2.5		mg/L	5		6010D	Dissolved
Potassium	390		10		mg/L	5		6010D	Dissolved
SiO2	30		2.7		mg/L	5		6010D	Dissolved
Sodium	10000		100		mg/L	50		6010D	Dissolved
Strontium	8.0		0.050		mg/L	5		6010D	Dissolved
Chemical Oxygen Demand	50		10		mg/L	1		410.4	Total/NA
Alkalinity, Total (As CaCO3)	98		5.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate (as CaCO3)	98		5.0		mg/L	1		SM 2320B	Total/NA
Salinity	33		2.0		psu	1		SM 2520B	Total/NA
Total Dissolved Solids	36000		1000		mg/L	1		SM 2540C	Total/NA
Nitrate-Nitrite (as N)	0.12	H	0.10		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 380-165557-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165557-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/14/25 00:31	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/14/25 00:31	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/14/25 00:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			08/14/25 00:31	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/14/25 00:31	1
1,1-Dichloroethane	ND		1.0		ug/L			08/14/25 00:31	1
1,1-Dichloroethene	ND		1.0		ug/L			08/14/25 00:31	1
1,1-Dichloropropene	ND		1.0		ug/L			08/14/25 00:31	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/14/25 00:31	1
1,2,3-Trichloropropane	ND		5.0		ug/L			08/14/25 00:31	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/14/25 00:31	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/14/25 00:31	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/14/25 00:31	1
1,2-Dibromoethane	ND		1.0		ug/L			08/14/25 00:31	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/14/25 00:31	1
1,2-Dichloroethane	ND		0.50		ug/L			08/14/25 00:31	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			08/14/25 00:31	1
1,2-Dichloropropane	ND		1.0		ug/L			08/14/25 00:31	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/14/25 00:31	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/14/25 00:31	1
1,3-Dichloropropane	ND		1.0		ug/L			08/14/25 00:31	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			08/14/25 00:31	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/14/25 00:31	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/14/25 00:31	1
2,2-Dichloropropane	ND		1.0		ug/L			08/14/25 00:31	1
2-Butanone	ND		10		ug/L			08/14/25 00:31	1
2-Chlorotoluene	ND		1.0		ug/L			08/14/25 00:31	1
2-Hexanone	ND		10		ug/L			08/14/25 00:31	1
4-Chlorotoluene	ND		1.0		ug/L			08/14/25 00:31	1
4-Methyl-2-pentanone	ND		10		ug/L			08/14/25 00:31	1
Acetone	ND		12		ug/L			08/14/25 00:31	1
Benzene	ND		0.50		ug/L			08/14/25 00:31	1
Bromobenzene	ND		1.0		ug/L			08/14/25 00:31	1
Bromochloromethane	ND		1.0		ug/L			08/14/25 00:31	1
Bromodichloromethane	ND		1.0		ug/L			08/14/25 00:31	1
Bromoform	ND		1.0		ug/L			08/14/25 00:31	1
Bromomethane	ND		5.0		ug/L			08/14/25 00:31	1
Carbon disulfide	ND		10		ug/L			08/14/25 00:31	1
Carbon tetrachloride	ND		0.50		ug/L			08/14/25 00:31	1
Chlorobenzene	ND		1.0		ug/L			08/14/25 00:31	1
Chloroethane	ND		1.0		ug/L			08/14/25 00:31	1
Chloroform	ND		1.0		ug/L			08/14/25 00:31	1
Chloromethane	ND		1.0		ug/L			08/14/25 00:31	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/14/25 00:31	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/14/25 00:31	1
Dibromochloromethane	ND		1.0		ug/L			08/14/25 00:31	1
Dibromomethane	ND		1.0		ug/L			08/14/25 00:31	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			08/14/25 00:31	1
Ethanol	ND		100		ug/L			08/14/25 00:31	1

Client Sample ID: Well 13 Step

Lab Sample ID: 380-165557-1

Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 10:22

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0		ug/L			08/14/25 00:31	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			08/14/25 00:31	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/14/25 00:31	1
Isopropanol	ND		50		ug/L			08/14/25 00:31	1
Isopropylbenzene	ND		1.0		ug/L			08/14/25 00:31	1
m,p-Xylene	ND		1.0		ug/L			08/14/25 00:31	1
Methylene Chloride	ND		2.0		ug/L			08/14/25 00:31	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/14/25 00:31	1
Naphthalene	ND		10		ug/L			08/14/25 00:31	1
n-Butylbenzene	ND		1.0		ug/L			08/14/25 00:31	1
N-Propylbenzene	ND		1.0		ug/L			08/14/25 00:31	1
o-Xylene	ND		1.0		ug/L			08/14/25 00:31	1
p-Isopropyltoluene	ND		1.0		ug/L			08/14/25 00:31	1
sec-Butylbenzene	ND		1.0		ug/L			08/14/25 00:31	1
Styrene	ND		1.0		ug/L			08/14/25 00:31	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			08/14/25 00:31	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/14/25 00:31	1
tert-Butylbenzene	ND		1.0		ug/L			08/14/25 00:31	1
Tetrachloroethene	ND		1.0		ug/L			08/14/25 00:31	1
Tetrahydrofuran	ND		10		ug/L			08/14/25 00:31	1
Toluene	ND		1.0		ug/L			08/14/25 00:31	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/14/25 00:31	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/14/25 00:31	1
Trichloroethene	ND		1.0		ug/L			08/14/25 00:31	1
Trichlorofluoromethane	ND		5.0		ug/L			08/14/25 00:31	1
Trihalomethanes, Total	ND		1.0		ug/L			08/14/25 00:31	1
Vinyl acetate	ND		10		ug/L			08/14/25 00:31	1
Vinyl chloride	ND		0.50		ug/L			08/14/25 00:31	1
Xylenes, Total	ND		1.0		ug/L			08/14/25 00:31	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*08/14/25 00:31*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*08/14/25 00:31*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*08/14/25 00:31*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*60 - 140*		*08/14/25 00:31*	*1*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*08/14/25 00:31*	*1*
Dibromofluoromethane	*107*		*60 - 140*		*08/14/25 00:31*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/14/25 00:31*	*1*

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			08/14/25 11:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*60 - 140*		*08/14/25 11:51*	*1*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*08/14/25 11:51*	*1*
Dibromofluoromethane	*107*		*60 - 140*		*08/14/25 11:51*	*1*
Toluene-d8 (Surr)	*98*		*60 - 140*		*08/14/25 11:51*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165557-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) - RA2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND	H	2.0	ug/L			08/21/25 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*60 - 140*		*08/21/25 12:37*	*1*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/21/25 12:37*	*1*
Dibromofluoromethane	*102*		*60 - 140*		*08/21/25 12:37*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/21/25 12:37*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.29	ug/L		08/18/25 15:45	08/20/25 01:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*60*		*30 - 187*	*08/18/25 15:45*	*08/20/25 01:05*	*1*
Benzo(a)pyrene-d12 (Surr)	*39*		*32 - 194*	*08/18/25 15:45*	*08/20/25 01:05*	*1*
1-Methylnaphthalene-d10	*56*		*45 - 130*	*08/18/25 15:45*	*08/20/25 01:05*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
1,2-Dichlorobenzene	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
1,3-Dichlorobenzene	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
1,4-Dichlorobenzene	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
1-Methylnaphthalene	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2,4,5-Trichlorophenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2,4,6-Trichlorophenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2,4-Dichlorophenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2,4-Dimethylphenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2,4-Dinitrophenol	ND		47	ug/L		08/14/25 12:40	08/19/25 15:06	1
2,4-Dinitrotoluene	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2,6-Dichlorophenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2,6-Dinitrotoluene	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2-Chloronaphthalene	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2-Chlorophenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2-Methylnaphthalene	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2-Methylphenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2-Nitroaniline	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
2-Nitrophenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
3,3'-Dichlorobenzidine	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
3/4-Methylphenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
3-Nitroaniline	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
4,6-Dinitro-2-methylphenol	ND		47	ug/L		08/14/25 12:40	08/19/25 15:06	1
4-Bromophenyl phenyl ether	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
4-Chloro-3-methylphenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
4-Chloroaniline	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
4-Chlorophenyl phenyl ether	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
4-Nitroaniline	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
4-Nitrophenol	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1
Acenaphthene	ND		9.4	ug/L		08/14/25 12:40	08/19/25 15:06	1

Client Sample ID: Well 13 Step

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165557-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Acetophenone	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Alpha-Terpineol	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Aniline	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Anthracene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Azobenzene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Benzidine	ND		47		ug/L		08/14/25 12:40	08/19/25 15:06	1
Benzo[a]anthracene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Benzo[a]pyrene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Benzo[b]fluoranthene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Benzo[g,h,i]perylene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Benzo[k]fluoranthene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Benzoic acid	ND		47		ug/L		08/14/25 12:40	08/19/25 15:06	1
Benzyl alcohol	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Bis (2-chloroethoxy) methane	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
bis (2-chloroisopropyl) ether	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Bis(2-chloroethyl)ether	ND		23		ug/L		08/14/25 12:40	08/19/25 15:06	1
Bis(2-ethylhexyl) phthalate	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Butyl benzyl phthalate	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Carbazole	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Chrysene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Dibenz(a,h)anthracene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Dibenzofuran	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Diethyl phthalate	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Dimethyl phthalate	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Di-n-butyl phthalate	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Di-n-octyl phthalate	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Fluoranthene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Fluorene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Hexachloro-1,3-butadiene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Hexachlorobenzene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Hexachlorocyclopentadiene	ND		23		ug/L		08/14/25 12:40	08/19/25 15:06	1
Hexachloroethane	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Indeno[1,2,3-cd]pyrene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Isophorone	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Naphthalene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
n-Decane	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Nitrobenzene	ND		23		ug/L		08/14/25 12:40	08/19/25 15:06	1
N-Nitrosodimethylamine	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
N-Nitrosodi-n-propylamine	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
N-Nitrosodiphenylamine	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
n-Octadecane	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Pentachlorophenol	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Phenanthrene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Phenol	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Pyrene	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1
Pyridine	ND		9.4		ug/L		08/14/25 12:40	08/19/25 15:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*08/14/25 12:40*	*08/19/25 15:06*	*1*

Client Sample ID: Well 13 Step

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165557-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2,3,4-Trichlorophenol TIC	ND		ug/L			15950-66-0	08/14/25 12:40	08/19/25 15:06	1
2,3,6-Trichlorophenol TIC	ND		ug/L			933-75-5	08/14/25 12:40	08/19/25 15:06	1
2,3,7,8-TCDD TIC	ND		ug/L			1746-01-6	08/14/25 12:40	08/19/25 15:06	1
3,4,5-Trichlorophenol TIC	ND		ug/L			609-19-8	08/14/25 12:40	08/19/25 15:06	1
Phenylacetic Acid TIC	ND		ug/L			103-82-2	08/14/25 12:40	08/19/25 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	76		33 - 139	08/14/25 12:40	08/19/25 15:06	1
2-Fluorobiphenyl (Surr)	66		33 - 126	08/14/25 12:40	08/19/25 15:06	1
2-Fluorophenol (Surr)	47		12 - 120	08/14/25 12:40	08/19/25 15:06	1
Nitrobenzene-d5 (Surr)	70		36 - 120	08/14/25 12:40	08/19/25 15:06	1
Phenol-d6 (Surr)	38		10 - 120	08/14/25 12:40	08/19/25 15:06	1
p-Terphenyl-d14 (Surr)	83		47 - 131	08/14/25 12:40	08/19/25 15:06	1

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			08/23/25 14:40	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			08/23/25 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		20 - 144		08/23/25 14:40	1

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0094	ug/L		08/14/25 12:24	08/21/25 21:39	1
4,4'-DDE	ND		0.0047	ug/L		08/14/25 12:24	08/21/25 21:39	1
4,4'-DDT	ND		0.0047	ug/L		08/14/25 12:24	08/21/25 21:39	1
Aldrin	ND		0.0047	ug/L		08/14/25 12:24	08/21/25 21:39	1
alpha-BHC	ND		0.0019	ug/L		08/14/25 12:24	08/21/25 21:39	1
alpha-Chlordane	ND		0.047	ug/L		08/14/25 12:24	08/21/25 21:39	1
beta-BHC	ND		0.0070	ug/L		08/14/25 12:24	08/21/25 21:39	1
Chlordane	ND		0.047	ug/L		08/14/25 12:24	08/21/25 21:39	1
delta-BHC	ND		0.0047	ug/L		08/14/25 12:24	08/21/25 21:39	1
Dieldrin	ND		0.0047	ug/L		08/14/25 12:24	08/21/25 21:39	1
Endosulfan I	ND		0.0019	ug/L		08/14/25 12:24	08/21/25 21:39	1
Endosulfan II	ND		0.0094	ug/L		08/14/25 12:24	08/21/25 21:39	1
Endosulfan sulfate	ND		0.0047	ug/L		08/14/25 12:24	08/21/25 21:39	1
Endrin	ND		0.0047	ug/L		08/14/25 12:24	08/21/25 21:39	1
Endrin aldehyde	ND		0.047	ug/L		08/14/25 12:24	08/21/25 21:39	1
Endrin ketone	ND		0.0047	ug/L		08/14/25 12:24	08/21/25 21:39	1
gamma-BHC (Lindane)	ND		0.0019	ug/L		08/14/25 12:24	08/21/25 21:39	1
gamma-Chlordane	ND		0.014	ug/L		08/14/25 12:24	08/21/25 21:39	1
Heptachlor	ND		0.0019	ug/L		08/14/25 12:24	08/21/25 21:39	1
Heptachlor epoxide	ND		0.0094	ug/L		08/14/25 12:24	08/21/25 21:39	1
Methoxychlor	ND		0.0094	ug/L		08/14/25 12:24	08/21/25 21:39	1
Toxaphene	ND		0.094	ug/L		08/14/25 12:24	08/21/25 21:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	86		20 - 154	08/14/25 12:24	08/21/25 21:39	1
Tetrachloro-m-xylene (Surr)	69		20 - 139	08/14/25 12:24	08/21/25 21:39	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165557-1

Matrix: Water

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.094	ug/L		08/14/25 12:24	08/16/25 16:18	1
Aroclor-1221	ND		0.094	ug/L		08/14/25 12:24	08/16/25 16:18	1
Aroclor-1232	ND		0.094	ug/L		08/14/25 12:24	08/16/25 16:18	1
Aroclor-1242	ND		0.094	ug/L		08/14/25 12:24	08/16/25 16:18	1
Aroclor-1248	ND		0.094	ug/L		08/14/25 12:24	08/16/25 16:18	1
Aroclor-1254	ND		0.094	ug/L		08/14/25 12:24	08/16/25 16:18	1
Aroclor-1260	ND	*+ *1	0.094	ug/L		08/14/25 12:24	08/16/25 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*104*		*20 - 154*	*08/14/25 12:24*	*08/16/25 16:18*	*1*
Tetrachloro-m-xylene (Surr)	*84*		*20 - 139*	*08/14/25 12:24*	*08/16/25 16:18*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		08/18/25 00:19	08/18/25 11:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*115*		*46 - 136*	*08/18/25 00:19*	*08/18/25 11:14*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*106*		*46 - 136*	*08/18/25 00:19*	*08/18/25 11:14*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250	ug/L		08/17/25 11:50	08/25/25 10:57	1
Diesel Range Organics [C10-C28]	ND		49	ug/L		08/17/25 11:50	08/25/25 10:57	1
C24-C44	ND		250	ug/L		08/17/25 11:50	08/25/25 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*86*		*53 - 151*	*08/17/25 11:50*	*08/25/25 10:57*	*1*
n-Octacosane (Surr)	*86*		*53 - 151*	*08/17/25 11:50*	*08/25/25 10:57*	*1*

Method: SW846 8015C - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		1300	mg/L		08/24/25 11:58	08/24/25 19:38	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*68*		*10 - 130*	*08/24/25 11:58*	*08/24/25 19:38*	*100*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**59**		2.0	mg/L			08/13/25 17:51	20
Fluoride	ND		2.0	mg/L			08/13/25 17:51	20

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20000**		400	mg/L			08/13/25 18:06	400
Sulfate	**2400**		400	mg/L			08/13/25 18:06	400

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.83**		0.50	ng/L			09/24/25 20:05	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165557-1

Matrix: Water

Method: EPA 1640 - Metals (ICPMS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		09/25/25 14:15	09/25/25 14:50	1
Cadmium	**0.033**		0.020		ug/L		09/25/25 14:15	09/25/25 14:50	1
Chromium	ND		1.0		ug/L		09/25/25 14:15	09/25/25 14:50	1
Copper	**6.0**		0.50		ug/L		09/25/25 14:15	09/25/25 14:50	1
Lead	**0.13**		0.050		ug/L		09/25/25 14:15	09/25/25 14:50	1
Silver	ND		1.0		ug/L		09/25/25 14:15	09/25/25 14:50	1
Zinc	**48**		1.0		ug/L		09/25/25 14:15	09/25/25 14:50	1
Aluminum	ND		5.0		ug/L		09/25/25 14:15	09/25/25 14:50	1
Barium	**25**		0.50		ug/L		09/25/25 14:15	09/25/25 14:50	1
Iron	**22**		5.0		ug/L		09/25/25 14:15	09/25/25 14:50	1
Manganese	**6.5**		0.050		ug/L		09/25/25 14:15	09/25/25 14:50	1
Selenium	ND		0.70		ug/L		09/25/25 14:15	09/25/25 14:50	1
Vanadium	**2.1**		1.0		ug/L		09/25/25 14:15	09/25/25 14:50	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**440**		10		mg/L			09/23/25 12:40	5
Iron	ND		2.5		mg/L			09/23/25 12:40	5
Lithium	**0.37**		0.25		mg/L			09/23/25 12:40	5
Magnesium	**1300**		2.5		mg/L			09/23/25 12:40	5
Potassium	**390**		10		mg/L			09/23/25 12:50	5
SiO2	**30**		2.7		mg/L			09/23/25 12:40	5
Sodium	**10000**		100		mg/L			09/23/25 14:11	50
Strontium	**8.0**		0.050		mg/L			09/23/25 12:40	5

Method: SW846 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		20		ug/L			09/23/25 12:15	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		0.95		mg/L		08/17/25 13:26	08/23/25 17:11	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		08/15/25 13:34	08/16/25 12:13	1
Chemical Oxygen Demand (EPA 410.4)	**50**		10		mg/L		08/17/25 08:34	08/17/25 11:54	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**98**		5.0		mg/L			08/20/25 20:22	1
Bicarbonate (as CaCO3) (SM 2320B)	**98**		5.0		mg/L			08/20/25 20:22	1
Carbonate (as CaCO3) (SM 2320B)	ND		5.0		mg/L			08/20/25 20:22	1
Hydroxide (as CaCO3) (SM 2320B)	ND		5.0		mg/L			08/20/25 20:22	1
Salinity (SM 2520B)	**33**		2.0		psu			08/27/25 18:00	1
Total Dissolved Solids (SM 2540C)	**36000**		1000		mg/L			08/15/25 19:34	1
Nitrate-Nitrite (as N) (SM 4500 NO3 E)	**0.12**	**H**	0.10		mg/L			08/18/25 22:32	1
Carbon, Non-Purgable Organic (SM 5310C)	ND	H	0.50		mg/L			09/10/25 10:30	1
Total Nitrogen (EPA Total Nitrogen)	ND		1.1		mg/L			08/20/25 10:32	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165557-1

Matrix: Water

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	303	G	57.0	64.6	4.00	60.9	pCi/L	08/19/25 08:42	08/21/25 21:08	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.463	U	0.422	0.424	1.00	0.645	pCi/L	08/19/25 08:29	09/11/25 18:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*08/19/25 08:29*	*09/11/25 18:49*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.922	U G	0.670	0.675	1.00	1.02	pCi/L	08/19/25 08:46	09/11/25 11:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*08/19/25 08:46*	*09/11/25 11:55*	*1*
Y Carrier	*83.4*		*30 - 110*	*08/19/25 08:46*	*09/11/25 11:55*	*1*

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	2.67	U G	6.03	6.04	3.00	10.4	pCi/L	08/15/25 08:49	08/26/25 14:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*19.6*	*X*	*30 - 110*	*08/15/25 08:49*	*08/26/25 14:48*	*1*
Y Carrier	*89.0*		*30 - 110*	*08/15/25 08:49*	*08/26/25 14:48*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.38		0.792	0.797	5.00	1.02	pCi/L		09/11/25 13:58	1

Method: SM7110C - Gross Alpha by Co-Precipitation

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	1.79	*	0.942	0.964	3.00	1.14	pCi/L	08/19/25 08:48	08/21/25 21:29	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Client Sample ID: Trip Blank

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165557-2

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/14/25 00:54	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/14/25 00:54	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/14/25 00:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			08/14/25 00:54	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/14/25 00:54	1
1,1-Dichloroethane	ND		1.0		ug/L			08/14/25 00:54	1
1,1-Dichloroethene	ND		1.0		ug/L			08/14/25 00:54	1
1,1-Dichloropropene	ND		1.0		ug/L			08/14/25 00:54	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/14/25 00:54	1
1,2,3-Trichloropropane	ND		5.0		ug/L			08/14/25 00:54	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/14/25 00:54	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/14/25 00:54	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/14/25 00:54	1
1,2-Dibromoethane	ND		1.0		ug/L			08/14/25 00:54	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/14/25 00:54	1
1,2-Dichloroethane	ND		0.50		ug/L			08/14/25 00:54	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			08/14/25 00:54	1
1,2-Dichloropropane	ND		1.0		ug/L			08/14/25 00:54	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/14/25 00:54	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/14/25 00:54	1
1,3-Dichloropropane	ND		1.0		ug/L			08/14/25 00:54	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			08/14/25 00:54	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/14/25 00:54	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/14/25 00:54	1
2,2-Dichloropropane	ND		1.0		ug/L			08/14/25 00:54	1
2-Butanone	ND		10		ug/L			08/14/25 00:54	1
2-Chlorotoluene	ND		1.0		ug/L			08/14/25 00:54	1
2-Hexanone	ND		10		ug/L			08/14/25 00:54	1
4-Chlorotoluene	ND		1.0		ug/L			08/14/25 00:54	1
4-Methyl-2-pentanone	ND		10		ug/L			08/14/25 00:54	1
Acetone	ND		12		ug/L			08/14/25 00:54	1
Benzene	ND		0.50		ug/L			08/14/25 00:54	1
Bromobenzene	ND		1.0		ug/L			08/14/25 00:54	1
Bromochloromethane	ND		1.0		ug/L			08/14/25 00:54	1
Bromodichloromethane	ND		1.0		ug/L			08/14/25 00:54	1
Bromoform	ND		1.0		ug/L			08/14/25 00:54	1
Bromomethane	ND		5.0		ug/L			08/14/25 00:54	1
Carbon disulfide	ND		10		ug/L			08/14/25 00:54	1
Carbon tetrachloride	ND		0.50		ug/L			08/14/25 00:54	1
Chlorobenzene	ND		1.0		ug/L			08/14/25 00:54	1
Chloroethane	ND		1.0		ug/L			08/14/25 00:54	1
Chloroform	ND		1.0		ug/L			08/14/25 00:54	1
Chloromethane	ND		1.0		ug/L			08/14/25 00:54	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/14/25 00:54	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/14/25 00:54	1
Dibromochloromethane	ND		1.0		ug/L			08/14/25 00:54	1
Dibromomethane	ND		1.0		ug/L			08/14/25 00:54	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			08/14/25 00:54	1
Ethanol	ND		100		ug/L			08/14/25 00:54	1

Client Sample ID: Trip Blank

Lab Sample ID: 380-165557-2

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0		ug/L			08/14/25 00:54	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			08/14/25 00:54	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/14/25 00:54	1
Isopropanol	ND		50		ug/L			08/14/25 00:54	1
Isopropylbenzene	ND		1.0		ug/L			08/14/25 00:54	1
m,p-Xylene	ND		1.0		ug/L			08/14/25 00:54	1
Methylene Chloride	ND		2.0		ug/L			08/14/25 00:54	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/14/25 00:54	1
Naphthalene	ND		10		ug/L			08/14/25 00:54	1
n-Butylbenzene	ND		1.0		ug/L			08/14/25 00:54	1
N-Propylbenzene	ND		1.0		ug/L			08/14/25 00:54	1
o-Xylene	ND		1.0		ug/L			08/14/25 00:54	1
p-Isopropyltoluene	ND		1.0		ug/L			08/14/25 00:54	1
sec-Butylbenzene	ND		1.0		ug/L			08/14/25 00:54	1
Styrene	ND		1.0		ug/L			08/14/25 00:54	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			08/14/25 00:54	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/14/25 00:54	1
tert-Butylbenzene	ND		1.0		ug/L			08/14/25 00:54	1
Tetrachloroethene	ND		1.0		ug/L			08/14/25 00:54	1
Tetrahydrofuran	ND		10		ug/L			08/14/25 00:54	1
Toluene	ND		1.0		ug/L			08/14/25 00:54	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/14/25 00:54	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/14/25 00:54	1
Trichloroethene	ND		1.0		ug/L			08/14/25 00:54	1
Trichlorofluoromethane	ND		5.0		ug/L			08/14/25 00:54	1
Trihalomethanes, Total	ND		1.0		ug/L			08/14/25 00:54	1
Vinyl acetate	ND		10		ug/L			08/14/25 00:54	1
Vinyl chloride	ND		0.50		ug/L			08/14/25 00:54	1
Xylenes, Total	ND		1.0		ug/L			08/14/25 00:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*08/14/25 00:54*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*08/14/25 00:54*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*08/14/25 00:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*60 - 140*		*08/14/25 00:54*	*1*
4-Bromofluorobenzene (Surr)	*104*		*60 - 140*		*08/14/25 00:54*	*1*
Dibromofluoromethane	*107*		*60 - 140*		*08/14/25 00:54*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/14/25 00:54*	*1*

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		2.0		ug/L			08/14/25 11:29	1
Acrolein	ND		5.0		ug/L			08/14/25 11:29	1
Acrylonitrile	ND		2.0		ug/L			08/14/25 11:29	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/14/25 11:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*60 - 140*		*08/14/25 11:29*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 380-165557-2

Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 10:22

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) - RA (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/14/25 11:29*	*1*
Dibromofluoromethane	*104*		*60 - 140*		*08/14/25 11:29*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*08/14/25 11:29*	*1*

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			08/23/25 13:30	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			08/23/25 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*20 - 144*		*08/23/25 13:30*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		08/18/25 00:19	08/18/25 11:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*98*		*46 - 136*	*08/18/25 00:19*	*08/18/25 11:31*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*102*		*46 - 136*	*08/18/25 00:19*	*08/18/25 11:31*	*1*

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
380-165557-1	Well 13 Step	111	103	107	99
380-165557-1 - RA	Well 13 Step	112	103	107	98
380-165557-1 - RA2	Well 13 Step	108	96	102	99
380-165557-2	Trip Blank	107	104	107	99
380-165557-2 - RA	Trip Blank	107	100	104	100
LCS 570-611135/1002	Lab Control Sample	104	97	101	100
LCS 570-611414/1003	Lab Control Sample	107	99	103	98
LCS 570-614667/1003	Lab Control Sample	105	100	101	100
LCSD 570-611135/3	Lab Control Sample Dup	105	96	103	99
LCSD 570-611414/4	Lab Control Sample Dup	104	98	101	97
LCSD 570-614667/4	Lab Control Sample Dup	106	99	101	100
MB 570-611135/5	Method Blank	106	102	106	97
MB 570-611414/7	Method Blank	110	100	106	99
MB 570-614667/7	Method Blank	103	97	101	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-165557-1	Well 13 Step	76	66	47	70	38	83
LCS 570-611616/2-A	Lab Control Sample	89	79	57	86	40	93
LCSD 570-611616/3-A	Lab Control Sample Dup	85	76	57	84	41	90
MB 570-611616/1-A	Method Blank	91	77	54	85	35	79

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FLN10	BAPd12	MNPd10
Lab Sample ID	Client Sample ID	(30-187)	(32-194)	(45-130)
380-165557-1	Well 13 Step	60	39	56
LCS 410-687067/2-A	Lab Control Sample	58	70	60
LCSD 410-687067/3-A	Lab Control Sample Dup	64	81	65
MB 410-687067/1-A	Method Blank	67	76	64

Surrogate Legend

FLN10 = Fluoranthene-d10 (Surr)
BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB1 (20-144)							
380-165557-1	Well 13 Step	119							
380-165557-2	Trip Blank	114							
LCS 570-615790/3	Lab Control Sample	118							
LCSD 570-615790/4	Lab Control Sample Dup	114							
MB 570-615790/5	Method Blank	115							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)						
380-165557-1	Well 13 Step	86	69						
LCS 570-611606/2-A	Lab Control Sample	99	72						
LCSD 570-611606/3-A	Lab Control Sample Dup	78	66						
MB 570-611606/1-A	Method Blank	117	95						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB2 (20-154)	TCX2 (20-139)						
380-165557-1	Well 13 Step	104	84						
LCS 570-611606/4-A	Lab Control Sample	99	69						
LCSD 570-611606/5-A	Lab Control Sample Dup	109	73						
MB 570-611606/1-A	Method Blank	103	84						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)						
380-165557-1	Well 13 Step	115	106						
380-165557-2	Trip Blank	98	102						
LCS 410-686677/2-A	Lab Control Sample	102	106						
LCSD 410-686677/3-A	Lab Control Sample Dup	102	106						

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
MB 410-686677/1-A	Method Blank	191 S1+	198 S1+

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTCSN1	OTCSN1
Lab Sample ID	Client Sample ID	(53-151)	(53-151)
380-165557-1	Well 13 Step	86	86
LCS 570-612783/4-A	Lab Control Sample	90	90
LCSD 570-612783/5-A	Lab Control Sample Dup	99	99
MB 570-612783/1-A	Method Blank	81	81

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015C - Glycols- Direct Injection (GC/FID)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		14BD1
Lab Sample ID	Client Sample ID	(10-130)
380-165557-1	Well 13 Step	68
LCS 410-689808/2-A	Lab Control Sample	116
MB 410-689808/1-A	Method Blank	95

Surrogate Legend

14BD = 1,4-Butanediol

Tracer/Carrier Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Ba (30-110)
380-165557-1	Well 13 Step	91.0
LCS 160-732650/2-A	Lab Control Sample	86.6
MB 160-732650/1-A	Method Blank	91.0

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
380-165557-1	Well 13 Step	91.0	83.4
LCS 160-732653/2-A	Lab Control Sample	86.6	81.5
MB 160-732653/1-A	Method Blank	91.0	77.8

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)
380-165557-1	Well 13 Step	19.6 X	89.0
LCS 160-732130/2-A	Lab Control Sample	81.0	91.6
LCSD 160-732130/3-A	Lab Control Sample Dup	74.7	89.7
MB 160-732130/1-A	Method Blank	82.8	87.5

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-611135/5
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/13/25 17:29	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/13/25 17:29	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/13/25 17:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			08/13/25 17:29	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/13/25 17:29	1
1,1-Dichloroethane	ND		1.0		ug/L			08/13/25 17:29	1
1,1-Dichloroethene	ND		1.0		ug/L			08/13/25 17:29	1
1,1-Dichloropropene	ND		1.0		ug/L			08/13/25 17:29	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,2,3-Trichloropropane	ND		5.0		ug/L			08/13/25 17:29	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/13/25 17:29	1
1,2-Dibromoethane	ND		1.0		ug/L			08/13/25 17:29	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,2-Dichloroethane	ND		0.50		ug/L			08/13/25 17:29	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			08/13/25 17:29	1
1,2-Dichloropropane	ND		1.0		ug/L			08/13/25 17:29	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
1,3-Dichloropropane	ND		1.0		ug/L			08/13/25 17:29	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			08/13/25 17:29	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/13/25 17:29	1
2,2-Dichloropropane	ND		1.0		ug/L			08/13/25 17:29	1
2-Butanone	ND		10		ug/L			08/13/25 17:29	1
2-Chlorotoluene	ND		1.0		ug/L			08/13/25 17:29	1
2-Hexanone	ND		10		ug/L			08/13/25 17:29	1
4-Chlorotoluene	ND		1.0		ug/L			08/13/25 17:29	1
4-Methyl-2-pentanone	ND		10		ug/L			08/13/25 17:29	1
Acetone	ND		12		ug/L			08/13/25 17:29	1
Benzene	ND		0.50		ug/L			08/13/25 17:29	1
Bromobenzene	ND		1.0		ug/L			08/13/25 17:29	1
Bromochloromethane	ND		1.0		ug/L			08/13/25 17:29	1
Bromodichloromethane	ND		1.0		ug/L			08/13/25 17:29	1
Bromoform	ND		1.0		ug/L			08/13/25 17:29	1
Bromomethane	ND		5.0		ug/L			08/13/25 17:29	1
Carbon disulfide	ND		10		ug/L			08/13/25 17:29	1
Carbon tetrachloride	ND		0.50		ug/L			08/13/25 17:29	1
Chlorobenzene	ND		1.0		ug/L			08/13/25 17:29	1
Chloroethane	ND		1.0		ug/L			08/13/25 17:29	1
Chloroform	ND		1.0		ug/L			08/13/25 17:29	1
Chloromethane	ND		1.0		ug/L			08/13/25 17:29	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/13/25 17:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/13/25 17:29	1
Dibromochloromethane	ND		1.0		ug/L			08/13/25 17:29	1
Dibromomethane	ND		1.0		ug/L			08/13/25 17:29	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			08/13/25 17:29	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-611135/5
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		100		ug/L			08/13/25 17:29	1
Ethylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			08/13/25 17:29	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/13/25 17:29	1
Isopropanol	ND		50		ug/L			08/13/25 17:29	1
Isopropylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
m,p-Xylene	ND		1.0		ug/L			08/13/25 17:29	1
Methylene Chloride	ND		2.0		ug/L			08/13/25 17:29	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/13/25 17:29	1
Naphthalene	ND		10		ug/L			08/13/25 17:29	1
n-Butylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
N-Propylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
o-Xylene	ND		1.0		ug/L			08/13/25 17:29	1
p-Isopropyltoluene	ND		1.0		ug/L			08/13/25 17:29	1
sec-Butylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
Styrene	ND		1.0		ug/L			08/13/25 17:29	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			08/13/25 17:29	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/13/25 17:29	1
tert-Butylbenzene	ND		1.0		ug/L			08/13/25 17:29	1
Tetrachloroethene	ND		1.0		ug/L			08/13/25 17:29	1
Tetrahydrofuran	ND		10		ug/L			08/13/25 17:29	1
Toluene	ND		1.0		ug/L			08/13/25 17:29	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/13/25 17:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/13/25 17:29	1
Trichloroethene	ND		1.0		ug/L			08/13/25 17:29	1
Trichlorofluoromethane	ND		5.0		ug/L			08/13/25 17:29	1
Trihalomethanes, Total	ND		1.0		ug/L			08/13/25 17:29	1
Vinyl acetate	ND		10		ug/L			08/13/25 17:29	1
Vinyl chloride	ND		0.50		ug/L			08/13/25 17:29	1
Xylenes, Total	ND		1.0		ug/L			08/13/25 17:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*60 - 140*		*08/13/25 17:29*	*1*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*08/13/25 17:29*	*1*
Dibromofluoromethane	*106*		*60 - 140*		*08/13/25 17:29*	*1*
Toluene-d8 (Surr)	*97*		*60 - 140*		*08/13/25 17:29*	*1*

Lab Sample ID: LCS 570-611135/1002
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			20.0	20.9		ug/L		104	60 - 140		
1,1,1-Trichloroethane			20.0	19.9		ug/L		99	70 - 130		
1,1,2,2-Tetrachloroethane			20.0	22.4		ug/L		112	60 - 140		
1,1,2-Trichloro-1,2,2-trifluoroetha ne			20.0	19.7		ug/L		98	60 - 140		
1,1,2-Trichloroethane			20.0	21.0		ug/L		105	70 - 130		
1,1-Dichloroethane			20.0	20.3		ug/L		101	70 - 130		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-611135/1002
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	19.8		ug/L		99	50 - 150
1,1-Dichloropropene	20.0	20.5		ug/L		102	60 - 140
1,2,3-Trichlorobenzene	20.0	22.4		ug/L		112	60 - 140
1,2,3-Trichloropropane	20.0	21.3		ug/L		107	60 - 140
1,2,4-Trichlorobenzene	20.0	22.3		ug/L		111	60 - 140
1,2,4-Trimethylbenzene	20.0	21.1		ug/L		105	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	23.0		ug/L		115	60 - 140
1,2-Dibromoethane	20.0	20.9		ug/L		104	60 - 140
1,2-Dichlorobenzene	20.0	21.8		ug/L		109	65 - 135
1,2-Dichloroethane	20.0	22.1		ug/L		111	70 - 130
1,2-Dichloropropane	20.0	20.9		ug/L		104	35 - 165
1,3,5-Trimethylbenzene	20.0	20.6		ug/L		103	60 - 140
1,3-Dichlorobenzene	20.0	20.7		ug/L		103	70 - 130
1,3-Dichloropropane	20.0	20.2		ug/L		101	60 - 140
1,4-Dichlorobenzene	20.0	21.0		ug/L		105	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	19.8		ug/L		99	60 - 140
2,2-Dichloropropane	20.0	21.7		ug/L		109	60 - 140
2-Butanone	20.0	20.8		ug/L		104	60 - 140
2-Chlorotoluene	20.0	20.5		ug/L		102	60 - 140
2-Hexanone	20.0	20.7		ug/L		104	60 - 140
4-Chlorotoluene	20.0	20.9		ug/L		105	60 - 140
4-Methyl-2-pentanone	20.0	21.1		ug/L		106	60 - 140
Acetone	20.0	20.8		ug/L		104	60 - 140
Benzene	20.0	21.0		ug/L		105	65 - 135
Bromobenzene	20.0	20.8		ug/L		104	60 - 140
Bromochloromethane	20.0	21.9		ug/L		110	60 - 140
Bromodichloromethane	20.0	21.6		ug/L		108	65 - 135
Bromoform	20.0	21.7		ug/L		108	70 - 130
Bromomethane	20.0	16.6		ug/L		83	15 - 185
Carbon disulfide	20.0	19.6		ug/L		98	60 - 140
Carbon tetrachloride	20.0	21.4		ug/L		107	70 - 130
Chlorobenzene	20.0	20.7		ug/L		103	65 - 135
Chloroethane	20.0	16.1		ug/L		81	40 - 160
Chloroform	20.0	20.5		ug/L		103	70 - 135
Chloromethane	20.0	18.1		ug/L		91	1 - 205
cis-1,2-Dichloroethene	20.0	20.9		ug/L		104	60 - 140
cis-1,3-Dichloropropene	20.0	21.2		ug/L		106	25 - 175
Dibromochloromethane	20.0	20.8		ug/L		104	70 - 135
Dibromomethane	20.0	21.6		ug/L		108	60 - 140
Di-isopropyl ether (DIPE)	20.0	20.6		ug/L		103	60 - 140
Ethanol	200	182		ug/L		91	60 - 140
Ethylbenzene	20.0	20.3		ug/L		102	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	20.0		ug/L		100	60 - 140
Hexachloro-1,3-butadiene	20.0	21.6		ug/L		108	60 - 140
Isopropanol	100	107		ug/L		107	60 - 140
Isopropylbenzene	20.0	20.2		ug/L		101	60 - 140
m,p-Xylene	40.0	41.0		ug/L		103	60 - 140
Methylene Chloride	20.0	20.6		ug/L		103	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	21.0		ug/L		105	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-611135/1002
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Naphthalene	20.0	21.1		ug/L		105	60 - 140
n-Butylbenzene	20.0	21.5		ug/L		108	60 - 140
N-Propylbenzene	20.0	20.1		ug/L		101	60 - 140
o-Xylene	20.0	20.4		ug/L		102	60 - 140
p-Isopropyltoluene	20.0	20.9		ug/L		104	60 - 140
sec-Butylbenzene	20.0	21.1		ug/L		105	60 - 140
Styrene	20.0	20.6		ug/L		103	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	20.2		ug/L		101	60 - 140
tert-Butyl alcohol (TBA)	100	98.1		ug/L		98	60 - 140
tert-Butylbenzene	20.0	21.3		ug/L		107	60 - 140
Tetrachloroethene	20.0	20.0		ug/L		100	70 - 130
Tetrahydrofuran	20.0	20.9		ug/L		104	60 - 140
Toluene	20.0	20.5		ug/L		102	70 - 130
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	70 - 130
trans-1,3-Dichloropropene	20.0	21.6		ug/L		108	50 - 150
Trichloroethene	20.0	20.3		ug/L		101	65 - 135
Trichlorofluoromethane	20.0	16.2		ug/L		81	50 - 150
Vinyl acetate	20.0	22.6		ug/L		113	60 - 140
Vinyl chloride	20.0	16.4		ug/L		82	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*60 - 140*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*
Dibromofluoromethane	*101*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Lab Sample ID: LCSD 570-611135/3
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	20.2		ug/L		101	60 - 140	3	30
1,1,1-Trichloroethane	20.0	19.7		ug/L		98	70 - 130	1	36
1,1,2,2-Tetrachloroethane	20.0	21.9		ug/L		110	60 - 140	2	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	19.2		ug/L		96	60 - 140	3	30
1,1,2-Trichloroethane	20.0	20.4		ug/L		102	70 - 130	3	45
1,1-Dichloroethane	20.0	20.1		ug/L		101	70 - 130	1	40
1,1-Dichloroethene	20.0	19.7		ug/L		98	50 - 150	1	32
1,1-Dichloropropene	20.0	19.8		ug/L		99	60 - 140	4	30
1,2,3-Trichlorobenzene	20.0	22.2		ug/L		111	60 - 140	1	30
1,2,3-Trichloropropane	20.0	20.9		ug/L		104	60 - 140	2	30
1,2,4-Trichlorobenzene	20.0	21.7		ug/L		109	60 - 140	3	30
1,2,4-Trimethylbenzene	20.0	20.8		ug/L		104	60 - 140	1	30
1,2-Dibromo-3-Chloropropane	20.0	23.3		ug/L		117	60 - 140	1	30
1,2-Dibromoethane	20.0	19.8		ug/L		99	60 - 140	5	30
1,2-Dichlorobenzene	20.0	21.1		ug/L		106	65 - 135	3	57
1,2-Dichloroethane	20.0	21.7		ug/L		109	70 - 130	2	49
1,2-Dichloropropane	20.0	19.9		ug/L		99	35 - 165	5	55

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-611135/3
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	20.0	19.3		ug/L		97	60 - 140	6	30
1,3-Dichlorobenzene	20.0	20.3		ug/L		101	70 - 130	2	43
1,3-Dichloropropane	20.0	19.5		ug/L		97	60 - 140	4	30
1,4-Dichlorobenzene	20.0	20.7		ug/L		103	65 - 135	2	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	18.9		ug/L		95	60 - 140	4	30
2,2-Dichloropropane	20.0	21.2		ug/L		106	60 - 140	2	30
2-Butanone	20.0	20.7		ug/L		104	60 - 140	1	30
2-Chlorotoluene	20.0	19.3		ug/L		96	60 - 140	6	30
2-Hexanone	20.0	20.7		ug/L		103	60 - 140	0	30
4-Chlorotoluene	20.0	20.3		ug/L		102	60 - 140	3	30
4-Methyl-2-pentanone	20.0	20.8		ug/L		104	60 - 140	2	30
Acetone	20.0	20.2		ug/L		101	60 - 140	3	30
Benzene	20.0	20.0		ug/L		100	65 - 135	5	61
Bromobenzene	20.0	19.7		ug/L		98	60 - 140	6	30
Bromochloromethane	20.0	21.5		ug/L		108	60 - 140	2	30
Bromodichloromethane	20.0	20.7		ug/L		103	65 - 135	4	56
Bromoform	20.0	21.4		ug/L		107	70 - 130	1	42
Bromomethane	20.0	15.7		ug/L		79	15 - 185	5	61
Carbon disulfide	20.0	19.0		ug/L		95	60 - 140	3	30
Carbon tetrachloride	20.0	20.7		ug/L		104	70 - 130	3	41
Chlorobenzene	20.0	19.9		ug/L		100	65 - 135	4	53
Chloroethane	20.0	15.9		ug/L		80	40 - 160	1	78
Chloroform	20.0	20.0		ug/L		100	70 - 135	2	30
Chloromethane	20.0	17.8		ug/L		89	1 - 205	2	60
cis-1,2-Dichloroethene	20.0	20.4		ug/L		102	60 - 140	2	30
cis-1,3-Dichloropropene	20.0	20.4		ug/L		102	25 - 175	4	58
Dibromochloromethane	20.0	20.7		ug/L		103	70 - 135	1	50
Dibromomethane	20.0	21.2		ug/L		106	60 - 140	2	30
Di-isopropyl ether (DIPE)	20.0	20.3		ug/L		101	60 - 140	2	30
Ethanol	200	186		ug/L		93	60 - 140	2	30
Ethylbenzene	20.0	19.2		ug/L		96	60 - 140	6	63
Ethyl-t-butyl ether (ETBE)	20.0	20.2		ug/L		101	60 - 140	1	30
Hexachloro-1,3-butadiene	20.0	19.8		ug/L		99	60 - 140	9	30
Isopropanol	100	111		ug/L		111	60 - 140	3	30
Isopropylbenzene	20.0	19.2		ug/L		96	60 - 140	5	30
m,p-Xylene	40.0	38.9		ug/L		97	60 - 140	5	30
Methylene Chloride	20.0	19.1		ug/L		95	60 - 140	8	28
Methyl-t-Butyl Ether (MTBE)	20.0	21.3		ug/L		107	60 - 140	2	30
Naphthalene	20.0	21.1		ug/L		105	60 - 140	0	30
n-Butylbenzene	20.0	20.8		ug/L		104	60 - 140	3	30
N-Propylbenzene	20.0	19.3		ug/L		97	60 - 140	4	30
o-Xylene	20.0	19.6		ug/L		98	60 - 140	4	30
p-Isopropyltoluene	20.0	20.2		ug/L		101	60 - 140	3	30
sec-Butylbenzene	20.0	20.1		ug/L		101	60 - 140	5	30
Styrene	20.0	19.9		ug/L		99	60 - 140	4	30
Tert-amyl-methyl ether (TAME)	20.0	20.0		ug/L		100	60 - 140	1	30
tert-Butyl alcohol (TBA)	100	98.7		ug/L		99	60 - 140	1	30
tert-Butylbenzene	20.0	20.5		ug/L		102	60 - 140	4	30
Tetrachloroethene	20.0	19.0		ug/L		95	70 - 130	5	39

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-611135/3
Matrix: Water
Analysis Batch: 611135

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Tetrahydrofuran			20.0	21.8		ug/L		109	60 - 140	4	30
Toluene			20.0	19.5		ug/L		97	70 - 130	5	41
trans-1,2-Dichloroethene			20.0	19.6		ug/L		98	70 - 130	2	45
trans-1,3-Dichloropropene			20.0	20.7		ug/L		104	50 - 150	4	86
Trichloroethene			20.0	20.0		ug/L		100	65 - 135	1	48
Trichlorofluoromethane			20.0	15.9		ug/L		79	50 - 150	2	84
Vinyl acetate			20.0	21.7		ug/L		109	60 - 140	4	30
Vinyl chloride			20.0	15.9		ug/L		79	5 - 195	3	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*60 - 140*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*
Dibromofluoromethane	*103*		*60 - 140*
Toluene-d8 (Surr)	*99*		*60 - 140*

Lab Sample ID: MB 570-611414/7
Matrix: Water
Analysis Batch: 611414

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/14/25 08:53	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/14/25 08:53	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/14/25 08:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			08/14/25 08:53	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/14/25 08:53	1
1,1-Dichloroethane	ND		1.0		ug/L			08/14/25 08:53	1
1,1-Dichloroethene	ND		1.0		ug/L			08/14/25 08:53	1
1,1-Dichloropropene	ND		1.0		ug/L			08/14/25 08:53	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/14/25 08:53	1
1,2,3-Trichloropropane	ND		5.0		ug/L			08/14/25 08:53	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/14/25 08:53	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/14/25 08:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/14/25 08:53	1
1,2-Dibromoethane	ND		1.0		ug/L			08/14/25 08:53	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/14/25 08:53	1
1,2-Dichloroethane	ND		0.50		ug/L			08/14/25 08:53	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			08/14/25 08:53	1
1,2-Dichloropropane	ND		1.0		ug/L			08/14/25 08:53	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/14/25 08:53	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/14/25 08:53	1
1,3-Dichloropropane	ND		1.0		ug/L			08/14/25 08:53	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			08/14/25 08:53	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/14/25 08:53	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/14/25 08:53	1
2,2-Dichloropropane	ND		1.0		ug/L			08/14/25 08:53	1
2-Butanone	ND		10		ug/L			08/14/25 08:53	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			08/14/25 08:53	1
2-Chlorotoluene	ND		1.0		ug/L			08/14/25 08:53	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-611414/7
Matrix: Water
Analysis Batch: 611414

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		10		ug/L			08/14/25 08:53	1
4-Chlorotoluene	ND		1.0		ug/L			08/14/25 08:53	1
4-Methyl-2-pentanone	ND		10		ug/L			08/14/25 08:53	1
Acetone	ND		12		ug/L			08/14/25 08:53	1
Acrolein	ND		5.0		ug/L			08/14/25 08:53	1
Acrylonitrile	ND		2.0		ug/L			08/14/25 08:53	1
Benzene	ND		0.50		ug/L			08/14/25 08:53	1
Bromobenzene	ND		1.0		ug/L			08/14/25 08:53	1
Bromochloromethane	ND		1.0		ug/L			08/14/25 08:53	1
Bromodichloromethane	ND		1.0		ug/L			08/14/25 08:53	1
Bromoform	ND		1.0		ug/L			08/14/25 08:53	1
Bromomethane	ND		5.0		ug/L			08/14/25 08:53	1
Carbon disulfide	ND		10		ug/L			08/14/25 08:53	1
Carbon tetrachloride	ND		0.50		ug/L			08/14/25 08:53	1
Chlorobenzene	ND		1.0		ug/L			08/14/25 08:53	1
Chloroethane	ND		1.0		ug/L			08/14/25 08:53	1
Chloroform	ND		1.0		ug/L			08/14/25 08:53	1
Chloromethane	ND		1.0		ug/L			08/14/25 08:53	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/14/25 08:53	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/14/25 08:53	1
Dibromochloromethane	ND		1.0		ug/L			08/14/25 08:53	1
Dibromomethane	ND		1.0		ug/L			08/14/25 08:53	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/14/25 08:53	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			08/14/25 08:53	1
Ethanol	ND		100		ug/L			08/14/25 08:53	1
Ethylbenzene	ND		1.0		ug/L			08/14/25 08:53	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			08/14/25 08:53	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/14/25 08:53	1
Isopropanol	ND		50		ug/L			08/14/25 08:53	1
Isopropylbenzene	ND		1.0		ug/L			08/14/25 08:53	1
m,p-Xylene	ND		1.0		ug/L			08/14/25 08:53	1
Methylene Chloride	ND		2.0		ug/L			08/14/25 08:53	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/14/25 08:53	1
Naphthalene	ND		10		ug/L			08/14/25 08:53	1
n-Butylbenzene	ND		1.0		ug/L			08/14/25 08:53	1
N-Propylbenzene	ND		1.0		ug/L			08/14/25 08:53	1
o-Xylene	ND		1.0		ug/L			08/14/25 08:53	1
p-Isopropyltoluene	ND		1.0		ug/L			08/14/25 08:53	1
sec-Butylbenzene	ND		1.0		ug/L			08/14/25 08:53	1
Styrene	ND		1.0		ug/L			08/14/25 08:53	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			08/14/25 08:53	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/14/25 08:53	1
tert-Butylbenzene	ND		1.0		ug/L			08/14/25 08:53	1
Tetrachloroethene	ND		1.0		ug/L			08/14/25 08:53	1
Tetrahydrofuran	ND		10		ug/L			08/14/25 08:53	1
Toluene	ND		1.0		ug/L			08/14/25 08:53	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/14/25 08:53	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/14/25 08:53	1
Trichloroethene	ND		1.0		ug/L			08/14/25 08:53	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-611414/7
Matrix: Water
Analysis Batch: 611414

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		5.0		ug/L			08/14/25 08:53	1
Trihalomethanes, Total	ND		1.0		ug/L			08/14/25 08:53	1
Vinyl acetate	ND		10		ug/L			08/14/25 08:53	1
Vinyl chloride	ND		0.50		ug/L			08/14/25 08:53	1
Xylenes, Total	ND		1.0		ug/L			08/14/25 08:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*60 - 140*		*08/14/25 08:53*	*1*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/14/25 08:53*	*1*
Dibromofluoromethane	*106*		*60 - 140*		*08/14/25 08:53*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/14/25 08:53*	*1*

Lab Sample ID: LCS 570-611414/1003
Matrix: Water
Analysis Batch: 611414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	21.2		ug/L		106	60 - 140
1,1,1-Trichloroethane	20.0	21.3		ug/L		107	70 - 130
1,1,2,2-Tetrachloroethane	20.0	21.8		ug/L		109	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.0		ug/L		110	60 - 140
1,1,2-Trichloroethane	20.0	20.2		ug/L		101	70 - 130
1,1-Dichloroethane	20.0	20.7		ug/L		104	70 - 130
1,1-Dichloroethene	20.0	21.5		ug/L		107	50 - 150
1,1-Dichloropropene	20.0	21.7		ug/L		109	60 - 140
1,2,3-Trichlorobenzene	20.0	21.5		ug/L		107	60 - 140
1,2,3-Trichloropropane	20.0	20.9		ug/L		105	60 - 140
1,2,4-Trichlorobenzene	20.0	21.6		ug/L		108	60 - 140
1,2,4-Trimethylbenzene	20.0	20.9		ug/L		105	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	21.1		ug/L		105	60 - 140
1,2-Dibromoethane	20.0	19.5		ug/L		97	60 - 140
1,2-Dichlorobenzene	20.0	21.2		ug/L		106	65 - 135
1,2-Dichloroethane	20.0	21.4		ug/L		107	70 - 130
1,2-Dichloropropane	20.0	20.3		ug/L		101	35 - 165
1,3,5-Trimethylbenzene	20.0	20.3		ug/L		102	60 - 140
1,3-Dichlorobenzene	20.0	20.3		ug/L		101	70 - 130
1,3-Dichloropropane	20.0	19.7		ug/L		99	60 - 140
1,4-Dichlorobenzene	20.0	20.3		ug/L		101	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	21.0		ug/L		105	60 - 140
2,2-Dichloropropane	20.0	23.4		ug/L		117	60 - 140
2-Butanone	20.0	20.8		ug/L		104	60 - 140
2-Chloroethyl vinyl ether	20.0	16.4		ug/L		82	1 - 225
2-Chlorotoluene	20.0	20.1		ug/L		101	60 - 140
2-Hexanone	20.0	20.0		ug/L		100	60 - 140
4-Chlorotoluene	20.0	20.7		ug/L		104	60 - 140
4-Methyl-2-pentanone	20.0	20.3		ug/L		102	60 - 140
Acetone	20.0	19.1		ug/L		96	60 - 140
Acrolein	40.0	46.8		ug/L		117	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-611414/1003
Matrix: Water
Analysis Batch: 611414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acrylonitrile	20.0	21.5		ug/L		107	60 - 140
Benzene	20.0	20.9		ug/L		105	65 - 135
Bromobenzene	20.0	20.0		ug/L		100	60 - 140
Bromochloromethane	20.0	22.0		ug/L		110	60 - 140
Bromodichloromethane	20.0	21.1		ug/L		106	65 - 135
Bromoform	20.0	21.7		ug/L		108	70 - 130
Bromomethane	20.0	15.2		ug/L		76	15 - 185
Carbon disulfide	20.0	20.5		ug/L		102	60 - 140
Carbon tetrachloride	20.0	22.6		ug/L		113	70 - 130
Chlorobenzene	20.0	20.5		ug/L		102	65 - 135
Chloroethane	20.0	18.8		ug/L		94	40 - 160
Chloroform	20.0	20.7		ug/L		103	70 - 135
Chloromethane	20.0	12.3		ug/L		62	1 - 205
cis-1,2-Dichloroethene	20.0	21.2		ug/L		106	60 - 140
cis-1,3-Dichloropropene	20.0	20.2		ug/L		101	25 - 175
Dibromochloromethane	20.0	20.5		ug/L		102	70 - 135
Dibromomethane	20.0	20.9		ug/L		105	60 - 140
Dichlorodifluoromethane	20.0	20.0		ug/L		100	60 - 140
Di-isopropyl ether (DIPE)	20.0	20.9		ug/L		104	60 - 140
Ethanol	200	195		ug/L		97	60 - 140
Ethylbenzene	20.0	20.0		ug/L		100	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	20.6		ug/L		103	60 - 140
Hexachloro-1,3-butadiene	20.0	20.2		ug/L		101	60 - 140
Isopropanol	100	113		ug/L		113	60 - 140
Isopropylbenzene	20.0	20.3		ug/L		102	60 - 140
m,p-Xylene	40.0	40.4		ug/L		101	60 - 140
Methylene Chloride	20.0	20.8		ug/L		104	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	21.5		ug/L		108	60 - 140
Naphthalene	20.0	19.9		ug/L		99	60 - 140
n-Butylbenzene	20.0	21.6		ug/L		108	60 - 140
N-Propylbenzene	20.0	20.5		ug/L		103	60 - 140
o-Xylene	20.0	20.2		ug/L		101	60 - 140
p-Isopropyltoluene	20.0	20.8		ug/L		104	60 - 140
sec-Butylbenzene	20.0	21.3		ug/L		106	60 - 140
Styrene	20.0	20.2		ug/L		101	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	20.4		ug/L		102	60 - 140
tert-Butyl alcohol (TBA)	100	96.3		ug/L		96	60 - 140
tert-Butylbenzene	20.0	21.4		ug/L		107	60 - 140
Tetrachloroethene	20.0	20.8		ug/L		104	70 - 130
Tetrahydrofuran	20.0	21.9		ug/L		110	60 - 140
Toluene	20.0	20.4		ug/L		102	70 - 130
trans-1,2-Dichloroethene	20.0	20.8		ug/L		104	70 - 130
trans-1,3-Dichloropropene	20.0	20.3		ug/L		101	50 - 150
Trichloroethene	20.0	20.1		ug/L		101	65 - 135
Trichlorofluoromethane	20.0	21.2		ug/L		106	50 - 150
Vinyl acetate	20.0	23.2		ug/L		116	60 - 140
Vinyl chloride	20.0	19.5		ug/L		98	5 - 195

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-611414/1003
Matrix: Water
Analysis Batch: 611414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*60 - 140*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*
Dibromofluoromethane	*103*		*60 - 140*
Toluene-d8 (Surr)	*98*		*60 - 140*

Lab Sample ID: LCSD 570-611414/4
Matrix: Water
Analysis Batch: 611414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	20.5		ug/L		102	60 - 140	3	30
1,1,1-Trichloroethane	20.0	20.6		ug/L		103	70 - 130	3	36
1,1,2,2-Tetrachloroethane	20.0	21.2		ug/L		106	60 - 140	3	61
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.9		ug/L		99	60 - 140	10	30
1,1,2-Trichloroethane	20.0	20.8		ug/L		104	70 - 130	3	45
1,1-Dichloroethane	20.0	20.5		ug/L		103	70 - 130	1	40
1,1-Dichloroethene	20.0	20.1		ug/L		101	50 - 150	6	32
1,1-Dichloropropene	20.0	21.6		ug/L		108	60 - 140	1	30
1,2,3-Trichlorobenzene	20.0	21.6		ug/L		108	60 - 140	1	30
1,2,3-Trichloropropane	20.0	21.0		ug/L		105	60 - 140	0	30
1,2,4-Trichlorobenzene	20.0	21.1		ug/L		105	60 - 140	3	30
1,2,4-Trimethylbenzene	20.0	20.5		ug/L		102	60 - 140	2	30
1,2-Dibromo-3-Chloropropane	20.0	23.0		ug/L		115	60 - 140	9	30
1,2-Dibromoethane	20.0	19.3		ug/L		97	60 - 140	1	30
1,2-Dichlorobenzene	20.0	20.5		ug/L		103	65 - 135	3	57
1,2-Dichloroethane	20.0	21.7		ug/L		108	70 - 130	1	49
1,2-Dichloropropane	20.0	20.3		ug/L		102	35 - 165	0	55
1,3,5-Trimethylbenzene	20.0	19.6		ug/L		98	60 - 140	4	30
1,3-Dichlorobenzene	20.0	19.7		ug/L		99	70 - 130	3	43
1,3-Dichloropropane	20.0	19.2		ug/L		96	60 - 140	3	30
1,4-Dichlorobenzene	20.0	19.8		ug/L		99	65 - 135	3	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	19.9		ug/L		100	60 - 140	5	30
2,2-Dichloropropane	20.0	22.3		ug/L		111	60 - 140	5	30
2-Butanone	20.0	20.9		ug/L		104	60 - 140	1	30
2-Chloroethyl vinyl ether	20.0	17.6		ug/L		88	1 - 225	7	71
2-Chlorotoluene	20.0	19.7		ug/L		98	60 - 140	2	30
2-Hexanone	20.0	21.4		ug/L		107	60 - 140	7	30
4-Chlorotoluene	20.0	20.0		ug/L		100	60 - 140	3	30
4-Methyl-2-pentanone	20.0	20.7		ug/L		103	60 - 140	2	30
Acetone	20.0	18.9		ug/L		95	60 - 140	1	30
Acrolein	40.0	45.5		ug/L		114	60 - 140	3	60
Acrylonitrile	20.0	21.8		ug/L		109	60 - 140	1	60
Benzene	20.0	20.4		ug/L		102	65 - 135	3	61
Bromobenzene	20.0	19.6		ug/L		98	60 - 140	2	30
Bromochloromethane	20.0	21.8		ug/L		109	60 - 140	1	30
Bromodichloromethane	20.0	21.0		ug/L		105	65 - 135	0	56
Bromoform	20.0	21.1		ug/L		106	70 - 130	3	42
Bromomethane	20.0	16.1		ug/L		81	15 - 185	6	61

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-611414/4
Matrix: Water
Analysis Batch: 611414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon disulfide	20.0	19.6		ug/L		98	60 - 140	4	30
Carbon tetrachloride	20.0	21.2		ug/L		106	70 - 130	6	41
Chlorobenzene	20.0	19.9		ug/L		99	65 - 135	3	53
Chloroethane	20.0	18.1		ug/L		91	40 - 160	4	78
Chloroform	20.0	19.9		ug/L		100	70 - 135	4	30
Chloromethane	20.0	15.0		ug/L		75	1 - 205	20	60
cis-1,2-Dichloroethene	20.0	20.2		ug/L		101	60 - 140	5	30
cis-1,3-Dichloropropene	20.0	19.9		ug/L		100	25 - 175	1	58
Dibromochloromethane	20.0	20.4		ug/L		102	70 - 135	1	50
Dibromomethane	20.0	20.5		ug/L		103	60 - 140	2	30
Dichlorodifluoromethane	20.0	19.2		ug/L		96	60 - 140	4	30
Di-isopropyl ether (DIPE)	20.0	20.3		ug/L		102	60 - 140	3	30
Ethanol	200	180		ug/L		90	60 - 140	8	30
Ethylbenzene	20.0	19.4		ug/L		97	60 - 140	3	63
Ethyl-t-butyl ether (ETBE)	20.0	20.2		ug/L		101	60 - 140	2	30
Hexachloro-1,3-butadiene	20.0	20.0		ug/L		100	60 - 140	1	30
Isopropanol	100	106		ug/L		106	60 - 140	6	30
Isopropylbenzene	20.0	19.8		ug/L		99	60 - 140	2	30
m,p-Xylene	40.0	39.7		ug/L		99	60 - 140	2	30
Methylene Chloride	20.0	19.3		ug/L		96	60 - 140	8	28
Methyl-t-Butyl Ether (MTBE)	20.0	20.8		ug/L		104	60 - 140	3	30
Naphthalene	20.0	20.1		ug/L		101	60 - 140	1	30
n-Butylbenzene	20.0	20.9		ug/L		104	60 - 140	3	30
N-Propylbenzene	20.0	20.1		ug/L		100	60 - 140	2	30
o-Xylene	20.0	19.5		ug/L		97	60 - 140	4	30
p-Isopropyltoluene	20.0	20.4		ug/L		102	60 - 140	2	30
sec-Butylbenzene	20.0	20.4		ug/L		102	60 - 140	4	30
Styrene	20.0	19.7		ug/L		98	60 - 140	3	30
Tert-amyl-methyl ether (TAME)	20.0	20.1		ug/L		101	60 - 140	1	30
tert-Butyl alcohol (TBA)	100	93.6		ug/L		94	60 - 140	3	30
tert-Butylbenzene	20.0	20.2		ug/L		101	60 - 140	6	30
Tetrachloroethene	20.0	19.7		ug/L		98	70 - 130	6	39
Tetrahydrofuran	20.0	22.2		ug/L		111	60 - 140	1	30
Toluene	20.0	19.7		ug/L		98	70 - 130	3	41
trans-1,2-Dichloroethene	20.0	19.9		ug/L		99	70 - 130	4	45
trans-1,3-Dichloropropene	20.0	20.3		ug/L		102	50 - 150	0	86
Trichloroethene	20.0	19.6		ug/L		98	65 - 135	3	48
Trichlorofluoromethane	20.0	20.2		ug/L		101	50 - 150	5	84
Vinyl acetate	20.0	21.9		ug/L		110	60 - 140	6	30
Vinyl chloride	20.0	19.6		ug/L		98	5 - 195	0	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*60 - 140*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*
Dibromofluoromethane	*101*		*60 - 140*
Toluene-d8 (Surr)	*97*		*60 - 140*

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-614667/7
Matrix: Water
Analysis Batch: 614667

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		2.0		ug/L			08/21/25 08:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*60 - 140*		*08/21/25 08:43*	*1*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*		*08/21/25 08:43*	*1*
Dibromofluoromethane	*101*		*60 - 140*		*08/21/25 08:43*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/21/25 08:43*	*1*

Lab Sample ID: LCS 570-614667/1003
Matrix: Water
Analysis Batch: 614667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2-Chloroethyl vinyl ether			20.0	18.7		ug/L		94	1 - 225		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*60 - 140*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*
Dibromofluoromethane	*101*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Lab Sample ID: LCSD 570-614667/4
Matrix: Water
Analysis Batch: 614667

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether			20.0	19.5		ug/L		98	1 - 225	4	71

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*60 - 140*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*
Dibromofluoromethane	*101*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-611616/1-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611616

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
1,2-Dichlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
1,3-Dichlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
1,4-Dichlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
1-Methylnaphthalene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-611616/1-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611616

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4,6-Trichlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4-Dichlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4-Dimethylphenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4-Dinitrophenol	ND		50		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,4-Dinitrotoluene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,6-Dichlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2,6-Dinitrotoluene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Chloronaphthalene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Chlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Methylnaphthalene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Methylphenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Nitroaniline	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
2-Nitrophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
3,3'-Dichlorobenzidine	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
3/4-Methylphenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
3-Nitroaniline	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Bromophenyl phenyl ether	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Chloro-3-methylphenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Chloroaniline	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Nitroaniline	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
4-Nitrophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Acenaphthene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Acenaphthylene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Acetophenone	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Alpha-Terpineol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Aniline	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Anthracene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Azobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzidine	ND		50		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzo[a]anthracene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzo[a]pyrene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzo[b]fluoranthene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzo[k]fluoranthene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzoic acid	ND		50		ug/L		08/14/25 12:40	08/19/25 12:41	1
Benzyl alcohol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Bis(2-chloroethyl)ether	ND		25		ug/L		08/14/25 12:40	08/19/25 12:41	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Butyl benzyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Carbazole	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Chrysene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Dibenz(a,h)anthracene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Dibenzofuran	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Diethyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-611616/1-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611616

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Di-n-butyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Di-n-octyl phthalate	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Fluoranthene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Fluorene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Hexachloro-1,3-butadiene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Hexachlorobenzene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Hexachlorocyclopentadiene	ND		25		ug/L		08/14/25 12:40	08/19/25 12:41	1
Hexachloroethane	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Isophorone	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Naphthalene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
n-Decane	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Nitrobenzene	ND		25		ug/L		08/14/25 12:40	08/19/25 12:41	1
N-Nitrosodimethylamine	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
N-Nitrosodiphenylamine	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
n-Octadecane	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Pentachlorophenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Phenanthrene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Phenol	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Pyrene	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1
Pyridine	ND		10		ug/L		08/14/25 12:40	08/19/25 12:41	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*08/14/25 12:40*	*08/19/25 12:41*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*33 - 139*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
2-Fluorobiphenyl (Surr)	*77*		*33 - 126*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
2-Fluorophenol (Surr)	*54*		*12 - 120*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
Nitrobenzene-d5 (Surr)	*85*		*36 - 120*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
Phenol-d6 (Surr)	*35*		*10 - 120*	*08/14/25 12:40*	*08/19/25 12:41*	*1*
p-Terphenyl-d14 (Surr)	*79*		*47 - 131*	*08/14/25 12:40*	*08/19/25 12:41*	*1*

Lab Sample ID: LCS 570-611616/2-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611616

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,4-Trichlorobenzene			100	89.3		ug/L		89	57 - 130		
1,2-Dichlorobenzene			100	85.1		ug/L		85	50 - 120		
1,2-Diphenylhydrazine(as Azobenzene)			100	78.5		ug/L		79	57 - 120		

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-611616/2-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichlorobenzene	100	83.4		ug/L		83	46 - 120
1,4-Dichlorobenzene	100	81.1		ug/L		81	47 - 120
1-Methylnaphthalene	100	92.4		ug/L		92	63 - 120
2,4,5-Trichlorophenol	100	88.8		ug/L		89	62 - 120
2,4,6-Trichlorophenol	100	95.4		ug/L		95	52 - 129
2,4-Dichlorophenol	100	97.2		ug/L		97	53 - 122
2,4-Dimethylphenol	100	88.6		ug/L		89	42 - 120
2,4-Dinitrophenol	100	100		ug/L		100	1 - 173
2,4-Dinitrotoluene	100	92.2		ug/L		92	48 - 127
2,6-Dichlorophenol	100	94.2		ug/L		94	64 - 120
2,6-Dinitrotoluene	100	93.8		ug/L		94	68 - 137
2-Chloronaphthalene	100	84.6		ug/L		85	65 - 120
2-Chlorophenol	100	94.0		ug/L		94	36 - 120
2-Methylnaphthalene	100	89.3		ug/L		89	60 - 120
2-Methylphenol	100	88.6		ug/L		89	55 - 120
2-Nitroaniline	100	102		ug/L		102	53 - 120
2-Nitrophenol	100	96.7		ug/L		97	45 - 167
3,3'-Dichlorobenzidine	100	91.6		ug/L		92	8 - 213
3/4-Methylphenol	200	160		ug/L		80	41 - 120
3-Nitroaniline	100	102		ug/L		102	62 - 120
4,6-Dinitro-2-methylphenol	100	91.0		ug/L		91	53 - 130
4-Bromophenyl phenyl ether	100	85.7		ug/L		86	65 - 120
4-Chloro-3-methylphenol	100	96.5		ug/L		96	41 - 128
4-Chloroaniline	100	98.7		ug/L		99	53 - 120
4-Chlorophenyl phenyl ether	100	92.0		ug/L		92	38 - 145
4-Nitroaniline	100	108		ug/L		108	61 - 120
4-Nitrophenol	100	34.5		ug/L		35	13 - 129
Acenaphthene	100	85.8		ug/L		86	60 - 132
Acenaphthylene	100	86.4		ug/L		86	54 - 126
Acetophenone	100	92.8		ug/L		93	45 - 120
Alpha-Terpineol	100	87.3		ug/L		87	60 - 140
Aniline	100	95.7		ug/L		96	50 - 120
Anthracene	100	84.8		ug/L		85	43 - 120
Azobenzene	100	78.5		ug/L		79	57 - 120
Benzidine	100	29.6	J	ug/L		30	20 - 143
Benzo[a]anthracene	100	93.1		ug/L		93	42 - 133
Benzo[a]pyrene	100	92.3		ug/L		92	32 - 148
Benzo[b]fluoranthene	100	96.0		ug/L		96	42 - 140
Benzo[g,h,i]perylene	100	85.5		ug/L		86	1 - 195
Benzo[k]fluoranthene	100	85.0		ug/L		85	25 - 146
Benzoic acid	100	49.2	J	ug/L		49	20 - 120
Benzyl alcohol	100	86.7		ug/L		87	47 - 120
Bis (2-chloroethoxy) methane	100	91.3		ug/L		91	49 - 165
bis (2-chloroisopropyl) ether	100	89.6		ug/L		90	63 - 139
Bis(2-chloroethyl)ether	100	91.4		ug/L		91	43 - 126
Bis(2-ethylhexyl) phthalate	100	95.4		ug/L		95	29 - 137
Butyl benzyl phthalate	100	95.4		ug/L		95	1 - 140
Chrysene	100	90.1		ug/L		90	44 - 140
Dibenz(a,h)anthracene	100	86.7		ug/L		87	1 - 200

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-611616/2-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenzofuran	100	93.2		ug/L		93	61 - 120
Diethyl phthalate	100	98.3		ug/L		98	1 - 120
Dimethyl phthalate	100	94.7		ug/L		95	1 - 120
Di-n-butyl phthalate	100	93.3		ug/L		93	8 - 120
Di-n-octyl phthalate	100	91.4		ug/L		91	19 - 132
Fluoranthene	100	86.6		ug/L		87	43 - 121
Fluorene	100	93.3		ug/L		93	70 - 120
Hexachloro-1,3-butadiene	100	85.1		ug/L		85	38 - 120
Hexachlorobenzene	100	85.0		ug/L		85	8 - 142
Hexachlorocyclopentadiene	100	83.9		ug/L		84	46 - 135
Hexachloroethane	100	79.6		ug/L		80	55 - 120
Indeno[1,2,3-cd]pyrene	100	82.4		ug/L		82	1 - 151
Isophorone	100	93.3		ug/L		93	47 - 180
Naphthalene	100	85.3		ug/L		85	36 - 120
Nitrobenzene	100	87.8		ug/L		88	54 - 158
N-Nitrosodimethylamine	100	58.8		ug/L		59	38 - 120
N-Nitrosodi-n-propylamine	100	96.9		ug/L		97	14 - 198
N-Nitrosodiphenylamine	100	109		ug/L		109	79 - 127
Pentachlorophenol	100	72.3		ug/L		72	38 - 152
Phenanthrene	100	85.2		ug/L		85	65 - 120
Phenol	100	45.7		ug/L		46	17 - 120
Pyrene	100	95.7		ug/L		96	70 - 120
Pyridine	100	62.4		ug/L		62	27 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*89*		*33 - 139*
2-Fluorobiphenyl (Surr)	*79*		*33 - 126*
2-Fluorophenol (Surr)	*57*		*12 - 120*
Nitrobenzene-d5 (Surr)	*86*		*36 - 120*
Phenol-d6 (Surr)	*40*		*10 - 120*
p-Terphenyl-d14 (Surr)	*93*		*47 - 131*

Lab Sample ID: LCSD 570-611616/3-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 611616

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	85.3		ug/L		85	57 - 130	5	30
1,2-Dichlorobenzene	100	83.1		ug/L		83	50 - 120	2	20
1,2-Diphenylhydrazine(as Azobenzene)	100	75.8		ug/L		76	57 - 120	4	20
1,3-Dichlorobenzene	100	80.9		ug/L		81	46 - 120	3	20
1,4-Dichlorobenzene	100	79.8		ug/L		80	47 - 120	2	20
1-Methylnaphthalene	100	89.8		ug/L		90	63 - 120	3	20
2,4,5-Trichlorophenol	100	81.7		ug/L		82	62 - 120	8	20
2,4,6-Trichlorophenol	100	92.9		ug/L		93	52 - 129	3	35
2,4-Dichlorophenol	100	96.3		ug/L		96	53 - 122	1	30
2,4-Dimethylphenol	100	86.6		ug/L		87	42 - 120	2	35
2,4-Dinitrophenol	100	105		ug/L		105	1 - 173	4	79

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-611616/3-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 611616

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-Dinitrotoluene	100	90.2		ug/L		90	48 - 127	2	25
2,6-Dichlorophenol	100	91.8		ug/L		92	64 - 120	3	20
2,6-Dinitrotoluene	100	93.6		ug/L		94	68 - 137	0	29
2-Chloronaphthalene	100	84.5		ug/L		84	65 - 120	0	15
2-Chlorophenol	100	94.5		ug/L		94	36 - 120	1	37
2-Methylnaphthalene	100	86.1		ug/L		86	60 - 120	4	20
2-Methylphenol	100	89.8		ug/L		90	55 - 120	1	20
2-Nitroaniline	100	100		ug/L		100	53 - 120	2	20
2-Nitrophenol	100	96.3		ug/L		96	45 - 167	0	33
3,3'-Dichlorobenzidine	100	88.4		ug/L		88	8 - 213	4	65
3/4-Methylphenol	200	162		ug/L		81	41 - 120	2	20
3-Nitroaniline	100	101		ug/L		101	62 - 120	2	20
4,6-Dinitro-2-methylphenol	100	89.5		ug/L		89	53 - 130	2	122
4-Bromophenyl phenyl ether	100	82.0		ug/L		82	65 - 120	4	26
4-Chloro-3-methylphenol	100	95.6		ug/L		96	41 - 128	1	44
4-Chloroaniline	100	98.5		ug/L		99	53 - 120	0	20
4-Chlorophenyl phenyl ether	100	88.7		ug/L		89	38 - 145	4	36
4-Nitroaniline	100	108		ug/L		108	61 - 120	0	20
4-Nitrophenol	100	37.3		ug/L		37	13 - 129	8	79
Acenaphthene	100	82.8		ug/L		83	60 - 132	4	29
Acenaphthylene	100	85.6		ug/L		86	54 - 126	1	45
Acetophenone	100	91.9		ug/L		92	45 - 120	1	20
Alpha-Terpineol	100	86.9		ug/L		87	60 - 140	1	30
Aniline	100	95.1		ug/L		95	50 - 120	1	20
Anthracene	100	82.5		ug/L		83	43 - 120	3	40
Azobenzene	100	75.8		ug/L		76	57 - 120	4	20
Benzidine	100	31.6	J	ug/L		32	20 - 143	7	30
Benzo[a]anthracene	100	89.9		ug/L		90	42 - 133	4	32
Benzo[a]pyrene	100	88.4		ug/L		88	32 - 148	4	43
Benzo[b]fluoranthene	100	89.3		ug/L		89	42 - 140	7	43
Benzo[g,h,i]perylene	100	81.8		ug/L		82	1 - 195	4	61
Benzo[k]fluoranthene	100	85.4		ug/L		85	25 - 146	1	38
Benzoic acid	100	48.5	J	ug/L		49	20 - 120	1	20
Benzyl alcohol	100	80.4		ug/L		80	47 - 120	8	20
Bis (2-chloroethoxy) methane	100	89.2		ug/L		89	49 - 165	2	32
bis (2-chloroisopropyl) ether	100	90.1		ug/L		90	63 - 139	1	46
Bis(2-chloroethyl)ether	100	94.7		ug/L		95	43 - 126	4	65
Bis(2-ethylhexyl) phthalate	100	90.9		ug/L		91	29 - 137	5	50
Butyl benzyl phthalate	100	91.4		ug/L		91	1 - 140	4	36
Chrysene	100	86.0		ug/L		86	44 - 140	5	53
Dibenz(a,h)anthracene	100	83.8		ug/L		84	1 - 200	3	75
Dibenzofuran	100	91.3		ug/L		91	61 - 120	2	20
Diethyl phthalate	100	95.8		ug/L		96	1 - 120	3	60
Dimethyl phthalate	100	93.5		ug/L		93	1 - 120	1	110
Di-n-butyl phthalate	100	91.5		ug/L		92	8 - 120	2	28
Di-n-octyl phthalate	100	86.3		ug/L		86	19 - 132	6	42
Fluoranthene	100	85.0		ug/L		85	43 - 121	2	40
Fluorene	100	91.4		ug/L		91	70 - 120	2	23
Hexachloro-1,3-butadiene	100	80.9		ug/L		81	38 - 120	5	38

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-611616/3-A
Matrix: Water
Analysis Batch: 613693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 611616

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexachlorobenzene			100	83.9		ug/L		84	8 - 142	1	33
Hexachlorocyclopentadiene			100	82.3		ug/L		82	46 - 135	2	20
Hexachloroethane			100	75.3		ug/L		75	55 - 120	6	32
Indeno[1,2,3-cd]pyrene			100	80.9		ug/L		81	1 - 151	2	60
Isophorone			100	91.5		ug/L		92	47 - 180	2	56
Naphthalene			100	81.7		ug/L		82	36 - 120	4	39
Nitrobenzene			100	85.3		ug/L		85	54 - 158	3	37
N-Nitrosodimethylamine			100	61.5		ug/L		62	38 - 120	5	20
N-Nitrosodi-n-propylamine			100	97.9		ug/L		98	14 - 198	1	52
N-Nitrosodiphenylamine			100	105		ug/L		105	79 - 127	4	20
Pentachlorophenol			100	69.6		ug/L		70	38 - 152	4	52
Phenanthrene			100	83.1		ug/L		83	65 - 120	2	24
Phenol			100	45.8		ug/L		46	17 - 120	0	39
Pyrene			100	91.8		ug/L		92	70 - 120	4	30
Pyridine			100	62.7		ug/L		63	27 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*85*		*33 - 139*
2-Fluorobiphenyl (Surr)	*76*		*33 - 126*
2-Fluorophenol (Surr)	*57*		*12 - 120*
Nitrobenzene-d5 (Surr)	*84*		*36 - 120*
Phenol-d6 (Surr)	*41*		*10 - 120*
p-Terphenyl-d14 (Surr)	*90*		*47 - 131*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 410-687067/1-A
Matrix: Water
Analysis Batch: 687673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 687067

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		08/18/25 15:45	08/19/25 19:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*67*		*30 - 187*	*08/18/25 15:45*	*08/19/25 19:58*	*1*
Benzo(a)pyrene-d12 (Surr)	*76*		*32 - 194*	*08/18/25 15:45*	*08/19/25 19:58*	*1*
1-Methylnaphthalene-d10	*64*		*45 - 130*	*08/18/25 15:45*	*08/19/25 19:58*	*1*

Lab Sample ID: LCS 410-687067/2-A
Matrix: Water
Analysis Batch: 687673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 687067

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			1.00	0.299	J	ug/L		30	18 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*58*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*70*		*32 - 194*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCS 410-687067/2-A
Matrix: Water
Analysis Batch: 687673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 687067

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Methylnaphthalene-d10	*60*		*45 - 130*

Lab Sample ID: LCSD 410-687067/3-A
Matrix: Water
Analysis Batch: 687673

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 687067

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			1.00	0.326		ug/L		33	18 - 130	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*64*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*81*		*32 - 194*
1-Methylnaphthalene-d10	*65*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-615790/5
Matrix: Water
Analysis Batch: 615790

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50		ug/L			08/23/25 12:47	1
Gasoline Range Organics (C4-C12)	ND		50		ug/L			08/23/25 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*20 - 144*		*08/23/25 12:47*	*1*

Lab Sample ID: LCS 570-615790/3
Matrix: Water
Analysis Batch: 615790

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			2000	1750		ug/L		87	71 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*20 - 144*

Lab Sample ID: LCSD 570-615790/4
Matrix: Water
Analysis Batch: 615790

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2000	1690		ug/L		85	71 - 120	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*20 - 144*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-611606/1-A
Matrix: Water
Analysis Batch: 615049

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611606

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.010		ug/L		08/14/25 12:23	08/21/25 18:38	1
4,4'-DDE	ND		0.0050		ug/L		08/14/25 12:23	08/21/25 18:38	1
4,4'-DDT	ND		0.0050		ug/L		08/14/25 12:23	08/21/25 18:38	1
Aldrin	ND		0.0050		ug/L		08/14/25 12:23	08/21/25 18:38	1
alpha-BHC	ND		0.0020		ug/L		08/14/25 12:23	08/21/25 18:38	1
alpha-Chlordane	ND		0.050		ug/L		08/14/25 12:23	08/21/25 18:38	1
beta-BHC	ND		0.0075		ug/L		08/14/25 12:23	08/21/25 18:38	1
Chlordane	ND		0.050		ug/L		08/14/25 12:23	08/21/25 18:38	1
delta-BHC	ND		0.0050		ug/L		08/14/25 12:23	08/21/25 18:38	1
Dieldrin	ND		0.0050		ug/L		08/14/25 12:23	08/21/25 18:38	1
Endosulfan I	ND		0.0020		ug/L		08/14/25 12:23	08/21/25 18:38	1
Endosulfan II	ND		0.010		ug/L		08/14/25 12:23	08/21/25 18:38	1
Endosulfan sulfate	ND		0.0050		ug/L		08/14/25 12:23	08/21/25 18:38	1
Endrin	ND		0.0050		ug/L		08/14/25 12:23	08/21/25 18:38	1
Endrin aldehyde	ND		0.050		ug/L		08/14/25 12:23	08/21/25 18:38	1
Endrin ketone	ND		0.0050		ug/L		08/14/25 12:23	08/21/25 18:38	1
gamma-BHC (Lindane)	ND		0.0020		ug/L		08/14/25 12:23	08/21/25 18:38	1
gamma-Chlordane	ND		0.015		ug/L		08/14/25 12:23	08/21/25 18:38	1
Heptachlor	ND		0.0020		ug/L		08/14/25 12:23	08/21/25 18:38	1
Heptachlor epoxide	ND		0.010		ug/L		08/14/25 12:23	08/21/25 18:38	1
Methoxychlor	ND		0.010		ug/L		08/14/25 12:23	08/21/25 18:38	1
Toxaphene	ND		0.10		ug/L		08/14/25 12:23	08/21/25 18:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*117*		*20 - 154*	*08/14/25 12:23*	*08/21/25 18:38*	*1*
Tetrachloro-m-xylene (Surr)	*95*		*20 - 139*	*08/14/25 12:23*	*08/21/25 18:38*	*1*

Lab Sample ID: LCS 570-611606/2-A
Matrix: Water
Analysis Batch: 615049

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0500	0.0413		ug/L		83	31 - 141
4,4'-DDE	0.0500	0.0360		ug/L		72	30 - 145
4,4'-DDT	0.0500	0.0443		ug/L		89	25 - 160
Aldrin	0.0500	0.0307		ug/L		61	42 - 140
alpha-BHC	0.0500	0.0321		ug/L		64	37 - 140
alpha-Chlordane	0.0500	0.0349	J	ug/L		70	45 - 140
beta-BHC	0.0500	0.0346		ug/L		69	17 - 147
delta-BHC	0.0500	0.0275		ug/L		55	19 - 140
Dieldrin	0.0500	0.0393		ug/L		79	36 - 146
Endosulfan I	0.0500	0.0355		ug/L		71	45 - 153
Endosulfan II	0.0500	0.0399		ug/L		80	1 - 202
Endosulfan sulfate	0.0500	0.0404		ug/L		81	26 - 144
Endrin	0.0500	0.0379		ug/L		76	30 - 147
Endrin aldehyde	0.0500	ND		ug/L		72	50 - 135
Endrin ketone	0.0500	0.0448		ug/L		90	60 - 140
gamma-BHC (Lindane)	0.0500	0.0336		ug/L		67	32 - 140

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCS 570-611606/2-A
Matrix: Water
Analysis Batch: 615049

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
gamma-Chlordane	0.0500	0.0326		ug/L		65	45 - 140
Heptachlor	0.0500	0.0312		ug/L		62	34 - 140
Heptachlor epoxide	0.0500	0.0345		ug/L		69	37 - 142
Methoxychlor	0.0500	0.0461		ug/L		92	50 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*99*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*72*		*20 - 139*

Lab Sample ID: LCSD 570-611606/3-A
Matrix: Water
Analysis Batch: 615049

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 611606

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	0.0500	0.0365		ug/L		73	31 - 141	12	39
4,4'-DDE	0.0500	0.0315		ug/L		63	30 - 145	13	35
4,4'-DDT	0.0500	0.0401		ug/L		80	25 - 160	10	42
Aldrin	0.0500	0.0286		ug/L		57	42 - 140	7	35
alpha-BHC	0.0500	0.0300		ug/L		60	37 - 140	7	36
alpha-Chlordane	0.0500	0.0320	J	ug/L		64	45 - 140	9	35
beta-BHC	0.0500	0.0326		ug/L		65	17 - 147	6	44
delta-BHC	0.0500	0.0257		ug/L		51	19 - 140	7	52
Dieldrin	0.0500	0.0355		ug/L		71	36 - 146	10	49
Endosulfan I	0.0500	0.0330		ug/L		66	45 - 153	7	28
Endosulfan II	0.0500	0.0364		ug/L		73	1 - 202	9	53
Endosulfan sulfate	0.0500	0.0355		ug/L		71	26 - 144	13	38
Endrin	0.0500	0.0351		ug/L		70	30 - 147	8	48
Endrin aldehyde	0.0500	ND		ug/L		69	50 - 135	5	25
Endrin ketone	0.0500	0.0390		ug/L		78	60 - 140	14	30
gamma-BHC (Lindane)	0.0500	0.0317		ug/L		63	32 - 140	6	39
gamma-Chlordane	0.0500	0.0300		ug/L		60	45 - 140	9	35
Heptachlor	0.0500	0.0294		ug/L		59	34 - 140	6	43
Heptachlor epoxide	0.0500	0.0325		ug/L		65	37 - 142	6	26
Methoxychlor	0.0500	0.0403		ug/L		81	50 - 135	14	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*78*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*66*		*20 - 139*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-611606/1-A
Matrix: Water
Analysis Batch: 612576

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611606

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.10	ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1221	ND		0.10	ug/L		08/14/25 12:23	08/16/25 17:50	1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: MB 570-611606/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612576 — **Prep Batch: 611606**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1232	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1242	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1248	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1254	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1
Aroclor-1260	ND		0.10		ug/L		08/14/25 12:23	08/16/25 17:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*103*		*20 - 154*	*08/14/25 12:23*	*08/16/25 17:50*	*1*
Tetrachloro-m-xylene (Surr)	*84*		*20 - 139*	*08/14/25 12:23*	*08/16/25 17:50*	*1*

Lab Sample ID: LCS 570-611606/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612576 — **Prep Batch: 611606**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			0.200	0.195		ug/L		97	50 - 140		
Aroclor-1260			0.200	0.197		ug/L		99	8 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*99*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*69*		*20 - 139*

Lab Sample ID: LCSD 570-611606/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612576 — **Prep Batch: 611606**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor-1016			0.200	0.262		ug/L		131	50 - 140	30	36
Aroclor-1260			0.200	0.423	*+ *1	ug/L		211	8 - 140	73	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*109*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*73*		*20 - 139*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-686677/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 686773 — **Prep Batch: 686677**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L		08/18/25 00:19	08/18/25 10:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*191*	*S1+*	*46 - 136*	*08/18/25 00:19*	*08/18/25 10:06*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*198*	*S1+*	*46 - 136*	*08/18/25 00:19*	*08/18/25 10:06*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-686677/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 686773 — **Prep Batch: 686677**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene Dibromide			0.129	0.110		ug/L		85	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*102*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*106*		*46 - 136*

Lab Sample ID: LCSD 410-686677/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 686773 — **Prep Batch: 686677**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide			0.129	0.109		ug/L		84	60 - 140	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*102*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*106*		*46 - 136*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-612783/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616060 — **Prep Batch: 612783**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250		ug/L		08/17/25 11:50	08/24/25 23:22	1
Diesel Range Organics [C10-C28]	ND		50		ug/L		08/17/25 11:50	08/24/25 23:22	1
C24-C44	ND		250		ug/L		08/17/25 11:50	08/24/25 23:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*81*		*53 - 151*	*08/17/25 11:50*	*08/24/25 23:22*	*1*

Lab Sample ID: LCS 570-612783/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616060 — **Prep Batch: 612783**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Crude Oil (C7-C44)			4000	4160		ug/L		104	43 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*90*		*53 - 151*

Lab Sample ID: LCSD 570-612783/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616060 — **Prep Batch: 612783**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Crude Oil (C7-C44)			4000	4440		ug/L		111	43 - 131	7	30

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 570-612783/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616060 — **Prep Batch: 612783**

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*99*		*53 - 151*

Method: 8015C - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 410-689808/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 689815 — **Prep Batch: 689808**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13		mg/L		08/24/25 11:58	08/24/25 13:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*95*		*10 - 130*	*08/24/25 11:58*	*08/24/25 13:51*	*1*

Lab Sample ID: LCS 410-689808/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 689815 — **Prep Batch: 689808**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene glycol			99.8	109		mg/L		109	75 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Butanediol	*116*		*10 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-611115/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611115

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10		mg/L			08/13/25 15:22	1
Chloride	ND		1.0		mg/L			08/13/25 15:22	1
Fluoride	ND		0.10		mg/L			08/13/25 15:22	1
Sulfate	ND		1.0		mg/L			08/13/25 15:22	1

Lab Sample ID: LCS 570-611115/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611115

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromide			5.00	4.89		mg/L		98	90 - 110		
Chloride			50.0	49.6		mg/L		99	90 - 110		
Fluoride			2.50	2.49		mg/L		100	90 - 110		
Sulfate			50.0	48.6		mg/L		97	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 570-611115/7 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611115

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	4.96		mg/L		99	90 - 110	1	15
Chloride	50.0	49.6		mg/L		99	90 - 110	0	15
Fluoride	2.50	2.52		mg/L		101	90 - 110	1	15
Sulfate	50.0	48.6		mg/L		97	90 - 110	0	15

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-9831/38 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9831

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			09/24/25 16:34	1

Lab Sample ID: MB 350-9831/39 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9831

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			09/24/25 16:38	1

Lab Sample ID: MB 350-9831/40 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9831

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			09/24/25 16:42	1

Lab Sample ID: LCS 350-9831/41 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9831

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.49		ng/L		90	77 - 123

Lab Sample ID: LCSD 350-9831/42 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9831

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.51		ng/L		90	77 - 123	0	24

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-9820/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9857 — **Prep Batch: 9820**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	ug/L		09/24/25 16:09	09/25/25 12:01	1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-9820/2-A
Matrix: Water
Analysis Batch: 9857

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9820

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.020		ug/L		09/24/25 16:09	09/25/25 12:01	1
Chromium	ND		1.0		ug/L		09/24/25 16:09	09/25/25 12:01	1
Copper	ND		0.50		ug/L		09/24/25 16:09	09/25/25 12:01	1
Lead	ND		0.050		ug/L		09/24/25 16:09	09/25/25 12:01	1
Silver	ND		1.0		ug/L		09/24/25 16:09	09/25/25 12:01	1
Zinc	ND		1.0		ug/L		09/24/25 16:09	09/25/25 12:01	1
Aluminum	ND		5.0		ug/L		09/24/25 16:09	09/25/25 12:01	1
Barium	ND		0.50		ug/L		09/24/25 16:09	09/25/25 12:01	1
Iron	ND		5.0		ug/L		09/24/25 16:09	09/25/25 12:01	1
Manganese	ND		0.050		ug/L		09/24/25 16:09	09/25/25 12:01	1
Selenium	ND		0.70		ug/L		09/24/25 16:09	09/25/25 12:01	1
Vanadium	ND		1.0		ug/L		09/24/25 16:09	09/25/25 12:01	1

Lab Sample ID: LCS 350-9820/3-A
Matrix: Water
Analysis Batch: 9857

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9820

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			12.5	12.5		ug/L		100	70 - 130		
Cadmium			1.25	1.23		ug/L		99	70 - 130		
Chromium			12.5	13.9		ug/L		112	70 - 130		
Copper			12.5	12.7		ug/L		101	70 - 130		
Lead			2.50	2.36		ug/L		95	70 - 130		
Silver			6.25	6.50		ug/L		104	70 - 130		
Zinc			12.5	12.6		ug/L		101	70 - 130		
Aluminum			125	134		ug/L		107	70 - 130		
Barium			12.5	13.1		ug/L		105	70 - 130		
Iron			62.5	60.3		ug/L		97	70 - 130		
Manganese			12.5	13.0		ug/L		104	70 - 130		
Selenium			12.5	11.5		ug/L		92	70 - 130		
Vanadium			12.5	12.7		ug/L		102	70 - 130		

Lab Sample ID: LCSD 350-9820/4-A
Matrix: Water
Analysis Batch: 9857

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 9820

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic			12.5	12.4		ug/L		100	70 - 130	0	20
Cadmium			1.25	1.22		ug/L		98	70 - 130	1	20
Chromium			12.5	13.5		ug/L		108	70 - 130	3	20
Copper			12.5	13.2		ug/L		105	70 - 130	4	20
Lead			2.50	2.39		ug/L		96	70 - 130	1	20
Silver			6.25	6.64		ug/L		106	70 - 130	2	20
Zinc			12.5	12.7		ug/L		102	70 - 130	1	20
Aluminum			125	134		ug/L		107	70 - 130	0	20
Barium			12.5	13.1		ug/L		105	70 - 130	0	20
Iron			62.5	62.2		ug/L		99	70 - 130	3	20
Manganese			12.5	13.0		ug/L		104	70 - 130	0	20
Selenium			12.5	11.6		ug/L		93	70 - 130	1	20

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCSD 350-9820/4-A
Matrix: Water
Analysis Batch: 9857

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 9820

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vanadium	12.5	13.0		ug/L		104	70 - 130	3	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 570-629403/1-A
Matrix: Water
Analysis Batch: 629780

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		2.0	mg/L			09/23/25 13:56	1
Iron	ND		0.50	mg/L			09/23/25 13:56	1
Lithium	ND		0.050	mg/L			09/23/25 13:56	1
Magnesium	ND		0.50	mg/L			09/23/25 13:56	1
Potassium	ND		2.0	mg/L			09/23/25 13:56	1
SiO2	ND		0.54	mg/L			09/23/25 13:56	1
Sodium	ND		2.0	mg/L			09/23/25 13:56	1
Strontium	ND		0.010	mg/L			09/23/25 13:56	1

Lab Sample ID: LCS 570-629403/2-A
Matrix: Water
Analysis Batch: 629780

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	2.50	2.42		mg/L		97	80 - 120
Iron	0.500	0.468	J	mg/L		94	80 - 120
Lithium	0.500	0.444		mg/L		89	80 - 120
Magnesium	2.50	2.35		mg/L		94	80 - 120
Potassium	5.00	4.53		mg/L		91	80 - 120
SiO2	5.38	4.90		mg/L		91	80 - 120
Sodium	5.00	4.59		mg/L		92	80 - 120
Strontium	0.500	0.460		mg/L		92	80 - 120

Lab Sample ID: LCSD 570-629403/3-A
Matrix: Water
Analysis Batch: 629780

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	2.50	2.43		mg/L		97	80 - 120	0	20
Iron	0.500	0.470	J	mg/L		94	80 - 120	1	20
Lithium	0.500	0.450		mg/L		90	80 - 120	1	20
Magnesium	2.50	2.36		mg/L		94	80 - 120	0	20
Potassium	5.00	4.55		mg/L		91	80 - 120	0	20
SiO2	5.38	4.82		mg/L		90	80 - 120	2	20
Sodium	5.00	4.61		mg/L		92	80 - 120	0	20
Strontium	0.500	0.459		mg/L		92	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-629402/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629688

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L			09/23/25 11:56	1

Lab Sample ID: LCS 570-629402/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629688

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Uranium			80.0	81.0		ug/L		101	80 - 120		

Lab Sample ID: LCSD 570-629402/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629688

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium			80.0	82.8		ug/L		104	80 - 120	2	20

Lab Sample ID: 380-165557-1 MS — **Client Sample ID: Well 13 Step**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629688

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Uranium	ND		80.0	84.3		ug/L		103	75 - 125		

Lab Sample ID: 380-165557-1 MSD — **Client Sample ID: Well 13 Step**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 629688

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium	ND		80.0	81.7		ug/L		100	75 - 125	3	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-612799/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 615929 — **Prep Batch: 612799**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0		mg/L		08/17/25 13:26	08/23/25 17:11	1

Lab Sample ID: LCS 570-612799/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 615929 — **Prep Batch: 612799**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
HEM: Oil and Grease			40.0	33.20		mg/L		83	78 - 114		

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 570-612799/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 615929 — **Prep Batch: 612799**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease			40.0	31.60		mg/L		79	78 - 114	5	18

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-612225/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612614 — **Prep Batch: 612225**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		08/15/25 13:34	08/16/25 12:13	1

Lab Sample ID: LCS 570-612225/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612614 — **Prep Batch: 612225**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Kjeldahl Nitrogen			5.00	4.74		mg/L		95	90 - 110		

Lab Sample ID: LCSD 570-612225/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612614 — **Prep Batch: 612225**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen			5.00	4.85		mg/L		97	90 - 110	2	20

Method: 410.4 - COD

Lab Sample ID: MB 570-612765/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612784 — **Prep Batch: 612765**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L		08/17/25 08:34	08/17/25 11:53	1

Lab Sample ID: LCS 570-612765/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612784 — **Prep Batch: 612765**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chemical Oxygen Demand			50.0	48.3		mg/L		97	90 - 110		

Lab Sample ID: LCSD 570-612765/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612784 — **Prep Batch: 612765**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand			50.0	48.3		mg/L		97	90 - 110	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 570-614853/11 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 614853

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		5.0		mg/L			08/20/25 18:00	1
Bicarbonate (as CaCO3)	ND		5.0		mg/L			08/20/25 18:00	1
Carbonate (as CaCO3)	ND		5.0		mg/L			08/20/25 18:00	1
Hydroxide (as CaCO3)	ND		5.0		mg/L			08/20/25 18:00	1

Lab Sample ID: LCS 570-614853/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 614853

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity, Total (As CaCO3)			106	101		mg/L		95	78 - 110		

Lab Sample ID: LCSD 570-614853/10 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 614853

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)			106	97.9		mg/L		92	78 - 110	3	10

Method: SM 2520B - Salinity

Lab Sample ID: LCS 570-617865/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 617865

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Salinity			35.0	35.6		psu		102	95 - 105		

Lab Sample ID: LCSD 570-617865/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 617865

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Salinity			35.0	35.7		psu		102	95 - 105	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-612413/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612413

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			08/15/25 19:34	1

Lab Sample ID: LCS 570-612413/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612413

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	952		mg/L		95	85 - 110		

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCSD 570-612413/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612413

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	994		mg/L		99	85 - 110	4	10

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 570-613699/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 613699

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrite (as N)	ND		0.10		mg/L			08/18/25 22:06	1

Lab Sample ID: LCS 570-613699/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 613699

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate-Nitrite (as N)			0.500	0.515		mg/L		103	80 - 116		

Lab Sample ID: LCSD 570-613699/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 613699

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate-Nitrite (as N)			0.500	0.533		mg/L		107	80 - 116	3	13

Lab Sample ID: MRL 570-613699/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 613699

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate-Nitrite (as N)			0.100	0.117		mg/L		117	50 - 150		

Method: SM 5310C - TOC

Lab Sample ID: MB 570-622571/62 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 622571

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic	ND		0.50		mg/L			09/09/25 21:06	1

Lab Sample ID: LCS 570-622571/63 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 622571

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Carbon, Non-Purgable Organic			5.03	5.00		mg/L		99	85 - 115		

Method: SM 5310C - TOC (Continued)

Lab Sample ID: LCSD 570-622571/64 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 622571

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic			5.03	5.01		mg/L		100	85 - 115	0	15

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-732651/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732927 — **Prep Batch: 732651**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	0.2027	U	0.537	0.537	4.00	0.926	pCi/L	08/19/25 08:42	08/21/25 21:02	1

Lab Sample ID: LCSB 160-732651/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732927 — **Prep Batch: 732651**

Analyte			Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Beta			69.4	74.48		7.99	4.00	0.919	pCi/L	107	75 - 125		

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-732650/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 735578 — **Prep Batch: 732650**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1628	U	0.178	0.179	1.00	0.284	pCi/L	08/19/25 08:29	09/11/25 18:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*08/19/25 08:29*	*09/11/25 18:48*	*1*

Lab Sample ID: LCS 160-732650/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 735578 — **Prep Batch: 732650**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.57	9.211		1.24	1.00	0.308	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*86.6*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-732653/1-A
Matrix: Water
Analysis Batch: 735577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 732653

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.5131	U G	0.472	0.475	1.00	1.01	pCi/L	08/19/25 08:46	09/11/25 15:57	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*08/19/25 08:46*	*09/11/25 15:57*	*1*
Y Carrier	*77.8*		*30 - 110*	*08/19/25 08:46*	*09/11/25 15:57*	*1*

Lab Sample ID: LCS 160-732653/2-A
Matrix: Water
Analysis Batch: 735577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 732653

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.08	9.816		1.35	1.00	0.592	pCi/L	108	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*86.6*		*30 - 110*
Y Carrier	*81.5*		*30 - 110*

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-732130/1-A
Matrix: Water
Analysis Batch: 733702

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 732130

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.4077		0.216	0.219	3.00	0.323	pCi/L	08/15/25 08:49	08/26/25 14:46	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*82.8*		*30 - 110*	*08/15/25 08:49*	*08/26/25 14:46*	*1*
Y Carrier	*87.5*		*30 - 110*	*08/15/25 08:49*	*08/26/25 14:46*	*1*

Lab Sample ID: LCS 160-732130/2-A
Matrix: Water
Analysis Batch: 733702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 732130

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Strontium-90			6.93	7.436		0.808	3.00	0.282	pCi/L	107	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*81.0*		*30 - 110*
Y Carrier	*91.6*		*30 - 110*

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: LCSD 160-732130/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 733702 — **Prep Batch: 732130**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Strontium-90			6.93	7.293		0.815	3.00	0.308	pCi/L	105	75 - 125	2	25

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Sr Carrier	*74.7*		*30 - 110*
Y Carrier	*89.7*		*30 - 110*

Method: SM7110C - Gross Alpha by Co-Precipitation

Lab Sample ID: MB 160-732656/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732942 — **Prep Batch: 732656**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.08838	U	0.602	0.602	3.00	1.16	pCi/L	08/19/25 08:48	08/21/25 21:20	1

Lab Sample ID: LCS 160-732656/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732942 — **Prep Batch: 732656**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Alpha			39.5	36.11		4.90	3.00	0.989	pCi/L	91	75 - 125		

Lab Sample ID: LCSD 160-732656/8-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732928 — **Prep Batch: 732656**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Gross Alpha			39.5	47.67		6.61	3.00	1.08	pCi/L	121	75 - 125	28	25

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

GC/MS VOA

Analysis Batch: 611135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	624.1	
380-165557-2	Trip Blank	Total/NA	Water	624.1	
MB 570-611135/5	Method Blank	Total/NA	Water	624.1	
LCS 570-611135/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-611135/3	Lab Control Sample Dup	Total/NA	Water	624.1	

Analysis Batch: 611414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1 - RA	Well 13 Step	Total/NA	Water	624.1	
380-165557-2 - RA	Trip Blank	Total/NA	Water	624.1	
MB 570-611414/7	Method Blank	Total/NA	Water	624.1	
LCS 570-611414/1003	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-611414/4	Lab Control Sample Dup	Total/NA	Water	624.1	

Analysis Batch: 614667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1 - RA2	Well 13 Step	Total/NA	Water	624.1	
MB 570-614667/7	Method Blank	Total/NA	Water	624.1	
LCS 570-614667/1003	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-614667/4	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 611616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	625.1	
MB 570-611616/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-611616/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-611616/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 613693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	625.1	611616
MB 570-611616/1-A	Method Blank	Total/NA	Water	625.1	611616
LCS 570-611616/2-A	Lab Control Sample	Total/NA	Water	625.1	611616
LCSD 570-611616/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	611616

Prep Batch: 687067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	625.1	
MB 410-687067/1-A	Method Blank	Total/NA	Water	625.1	
LCS 410-687067/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 410-687067/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 687673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	625.1 SIM	687067
MB 410-687067/1-A	Method Blank	Total/NA	Water	625.1 SIM	687067
LCS 410-687067/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	687067
LCSD 410-687067/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	687067

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

GC VOA

Analysis Batch: 615790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	8015B	
380-165557-2	Trip Blank	Total/NA	Water	8015B	
MB 570-615790/5	Method Blank	Total/NA	Water	8015B	
LCS 570-615790/3	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-615790/4	Lab Control Sample Dup	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 611606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	608	
MB 570-611606/1-A	Method Blank	Total/NA	Water	608	
LCS 570-611606/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 570-611606/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-611606/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 570-611606/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 612576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	608.3	611606
MB 570-611606/1-A	Method Blank	Total/NA	Water	608.3	611606
LCS 570-611606/4-A	Lab Control Sample	Total/NA	Water	608.3	611606
LCSD 570-611606/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	611606

Prep Batch: 612783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	3510C	
MB 570-612783/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-612783/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-612783/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 615049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	608.3	611606
MB 570-611606/1-A	Method Blank	Total/NA	Water	608.3	611606
LCS 570-611606/2-A	Lab Control Sample	Total/NA	Water	608.3	611606
LCSD 570-611606/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	611606

Analysis Batch: 616060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-612783/1-A	Method Blank	Total/NA	Water	8015B	612783
LCS 570-612783/4-A	Lab Control Sample	Total/NA	Water	8015B	612783
LCSD 570-612783/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	612783

Analysis Batch: 616107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	8015B	612783

Prep Batch: 686677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 686677 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-2	Trip Blank	Total/NA	Water	8011	
MB 410-686677/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-686677/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-686677/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 686773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	8011	686677
380-165557-2	Trip Blank	Total/NA	Water	8011	686677
MB 410-686677/1-A	Method Blank	Total/NA	Water	8011	686677
LCS 410-686677/2-A	Lab Control Sample	Total/NA	Water	8011	686677
LCSD 410-686677/3-A	Lab Control Sample Dup	Total/NA	Water	8011	686677

Prep Batch: 689808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	8015 DAI Prep	
MB 410-689808/1-A	Method Blank	Total/NA	Water	8015 DAI Prep	
LCS 410-689808/2-A	Lab Control Sample	Total/NA	Water	8015 DAI Prep	

Analysis Batch: 689815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	8015C	689808
MB 410-689808/1-A	Method Blank	Total/NA	Water	8015C	689808
LCS 410-689808/2-A	Lab Control Sample	Total/NA	Water	8015C	689808

HPLC/IC

Analysis Batch: 611115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	300.0	
380-165557-1 - DL	Well 13 Step	Total/NA	Water	300.0	
MB 570-611115/5	Method Blank	Total/NA	Water	300.0	
LCS 570-611115/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-611115/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 9820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Dissolved	Water	1640	
MB 350-9820/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-9820/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-9820/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 9831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Dissolved	Water	1631E	
MB 350-9831/38	Method Blank	Total/NA	Water	1631E	
MB 350-9831/39	Method Blank	Total/NA	Water	1631E	
MB 350-9831/40	Method Blank	Total/NA	Water	1631E	
LCS 350-9831/41	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-9831/42	Lab Control Sample Dup	Total/NA	Water	1631E	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Metals

Analysis Batch: 9857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Dissolved	Water	1640	9820
MB 350-9820/2-A	Method Blank	Total/NA	Water	1640	9820
LCS 350-9820/3-A	Lab Control Sample	Total/NA	Water	1640	9820
LCSD 350-9820/4-A	Lab Control Sample Dup	Total/NA	Water	1640	9820

Filtration Batch: 629402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Dissolved	Water	Filtration	
MB 570-629402/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-629402/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-629402/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	
380-165557-1 MS	Well 13 Step	Dissolved	Water	Filtration	
380-165557-1 MSD	Well 13 Step	Dissolved	Water	Filtration	

Filtration Batch: 629403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Dissolved	Water	Filtration	
MB 570-629403/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-629403/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-629403/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Analysis Batch: 629688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Dissolved	Water	6020	629402
MB 570-629402/1-A	Method Blank	Dissolved	Water	6020	629402
LCS 570-629402/2-A	Lab Control Sample	Dissolved	Water	6020	629402
LCSD 570-629402/3-A	Lab Control Sample Dup	Dissolved	Water	6020	629402
380-165557-1 MS	Well 13 Step	Dissolved	Water	6020	629402
380-165557-1 MSD	Well 13 Step	Dissolved	Water	6020	629402

Analysis Batch: 629703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Dissolved	Water	6010D	629403

Analysis Batch: 629714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Dissolved	Water	6010D	629403

Analysis Batch: 629780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Dissolved	Water	6010D	629403
MB 570-629403/1-A	Method Blank	Dissolved	Water	6010D	629403
LCS 570-629403/2-A	Lab Control Sample	Dissolved	Water	6010D	629403
LCSD 570-629403/3-A	Lab Control Sample Dup	Dissolved	Water	6010D	629403

General Chemistry

Prep Batch: 612225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	351.2	
MB 570-612225/3-A	Method Blank	Total/NA	Water	351.2	

General Chemistry (Continued)

Prep Batch: 612225 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-612225/4-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-612225/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	

Analysis Batch: 612413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	SM 2540C	
MB 570-612413/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-612413/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-612413/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Analysis Batch: 612614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	351.2	612225
MB 570-612225/3-A	Method Blank	Total/NA	Water	351.2	612225
LCS 570-612225/4-A	Lab Control Sample	Total/NA	Water	351.2	612225
LCSD 570-612225/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	612225

Prep Batch: 612765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	410.4	
MB 570-612765/3-A	Method Blank	Total/NA	Water	410.4	
LCS 570-612765/4-A	Lab Control Sample	Total/NA	Water	410.4	
LCSD 570-612765/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 612784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	410.4	612765
MB 570-612765/3-A	Method Blank	Total/NA	Water	410.4	612765
LCS 570-612765/4-A	Lab Control Sample	Total/NA	Water	410.4	612765
LCSD 570-612765/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	612765

Prep Batch: 612799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	1664A	
MB 570-612799/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-612799/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-612799/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 613699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	SM 4500 NO3 E	
MB 570-613699/4	Method Blank	Total/NA	Water	SM 4500 NO3 E	
LCS 570-613699/5	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
LCSD 570-613699/6	Lab Control Sample Dup	Total/NA	Water	SM 4500 NO3 E	
MRL 570-613699/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 614238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	Total Nitrogen	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

General Chemistry

Analysis Batch: 614853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	SM 2320B	
MB 570-614853/11	Method Blank	Total/NA	Water	SM 2320B	
LCS 570-614853/9	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 570-614853/10	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 615929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	1664A	612799
MB 570-612799/1-A	Method Blank	Total/NA	Water	1664A	612799
LCS 570-612799/2-A	Lab Control Sample	Total/NA	Water	1664A	612799
LCSD 570-612799/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	612799

Analysis Batch: 617865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	SM 2520B	
LCS 570-617865/3	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 570-617865/4	Lab Control Sample Dup	Total/NA	Water	SM 2520B	

Analysis Batch: 622571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	SM 5310C	
MB 570-622571/62	Method Blank	Total/NA	Water	SM 5310C	
LCS 570-622571/63	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 570-622571/64	Lab Control Sample Dup	Total/NA	Water	SM 5310C	

Rad

Prep Batch: 732130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	PrecSep-7	
MB 160-732130/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-732130/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	
LCSD 160-732130/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-7	

Prep Batch: 732650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	PrecSep-21	
MB 160-732650/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-732650/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 732651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	Evaporation	
MB 160-732651/1-A	Method Blank	Total/NA	Water	Evaporation	
LCSB 160-732651/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

Prep Batch: 732653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	PrecSep_0	
MB 160-732653/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-732653/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Rad

Prep Batch: 732656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165557-1	Well 13 Step	Total/NA	Water	Coprecipitation	
MB 160-732656/1-A	Method Blank	Total/NA	Water	Coprecipitation	
LCS 160-732656/2-A	Lab Control Sample	Total/NA	Water	Coprecipitation	
LCSD 160-732656/8-A	Lab Control Sample Dup	Total/NA	Water	Coprecipitation	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step

Date Collected: 08/11/25 10:00
Date Received: 08/12/25 10:22

Lab Sample ID: 380-165557-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	611135	VYF4	EET CAL 4	08/14/25 00:31
Total/NA	Analysis	624.1	RA	1	611414	AH8S	EET CAL 4	08/14/25 11:51
Total/NA	Analysis	624.1	RA2	1	614667	U1MC	EET CAL 4	08/21/25 12:37
Total/NA	Prep	625.1			611616	OAJ3	EET CAL 4	08/14/25 12:40
Total/NA	Analysis	625.1		1	613693	AX7Z	EET CAL 4	08/19/25 15:06
Total/NA	Prep	625.1			687067	QJZ6	ELLE	08/18/25 15:45
Total/NA	Analysis	625.1 SIM		1	687673	UJM0	ELLE	08/20/25 01:05
Total/NA	Analysis	8015B		1	615790	W4LC	EET CAL 4	08/23/25 14:40
Total/NA	Prep	608			611606	S4EA	EET CAL 4	08/14/25 12:24
Total/NA	Analysis	608.3		1	615049	N5Y3	EET CAL 4	08/21/25 21:39
Total/NA	Prep	608			611606	S4EA	EET CAL 4	08/14/25 12:24
Total/NA	Analysis	608.3		1	612576	SP9M	EET CAL 4	08/16/25 16:18
Total/NA	Prep	8011			686677	USL7	ELLE	08/18/25 00:19
Total/NA	Analysis	8011		1	686773	M6UH	ELLE	08/18/25 11:14
Total/NA	Prep	3510C			612783	TVD6	EET CAL 4	08/17/25 11:50
Total/NA	Analysis	8015B		1	616107	H6FE	EET CAL 4	08/25/25 10:57
Total/NA	Prep	8015 DAI Prep			689808	X875	ELLE	08/24/25 11:58
Total/NA	Analysis	8015C		100	689815	LXF2	ELLE	08/24/25 19:38
Total/NA	Analysis	300.0		20	611115	U9EE	EET CAL 4	08/13/25 17:51
Total/NA	Analysis	300.0	DL	400	611115	U9EE	EET CAL 4	08/13/25 18:06
Dissolved	Analysis	1631E		1	9831	COW	EET SSM	09/24/25 20:05
Dissolved	Prep	1640			9820	V1R	EET SSM	09/25/25 14:15
Dissolved	Analysis	1640		1	9857	V1R	EET SSM	09/25/25 14:50
Dissolved	Filtration	Filtration			629403	JP8N	EET CAL 4	09/23/25 06:35
Dissolved	Analysis	6010D		5	629703	VZ0K	EET CAL 4	09/23/25 12:50
Dissolved	Filtration	Filtration			629403	JP8N	EET CAL 4	09/23/25 06:35
Dissolved	Analysis	6010D		5	629714	VZ0K	EET CAL 4	09/23/25 12:40
Dissolved	Filtration	Filtration			629403	JP8N	EET CAL 4	09/23/25 06:35
Dissolved	Analysis	6010D		50	629780	VZ0K	EET CAL 4	09/23/25 14:11
Dissolved	Filtration	Filtration			629402	JP8N	EET CAL 4	09/23/25 06:34
Dissolved	Analysis	6020		20	629688	C0YH	EET CAL 4	09/23/25 12:15
Total/NA	Prep	1664A			612799	S7HP	EET CAL 4	08/17/25 13:26
Total/NA	Analysis	1664A		1	615929	LM3A	EET CAL 4	08/23/25 17:11
Total/NA	Prep	351.2			612225	ZL7L	EET CAL 4	08/15/25 13:34
Total/NA	Analysis	351.2		1	612614	ZL7L	EET CAL 4	08/16/25 12:13
Total/NA	Prep	410.4			612765	TP6R	EET CAL 4	08/17/25 08:34
Total/NA	Analysis	410.4		1	612784	TP6R	EET CAL 4	08/17/25 11:54
Total/NA	Analysis	SM 2320B		1	614853	LNW3	EET CAL 4	08/20/25 20:22
Total/NA	Analysis	SM 2520B		1	617865	GG0B	EET CAL 4	08/27/25 18:00
Total/NA	Analysis	SM 2540C		1	612413	S7PH	EET CAL 4	08/15/25 19:34
Total/NA	Analysis	SM 4500 NO3 E		1	613699	PK4M	EET CAL 4	08/18/25 22:32
Total/NA	Analysis	SM 5310C		1	622571	TBF6	EET CAL 4	09/10/25 10:30
Total/NA	Analysis	Total Nitrogen		1	614238	LRT5	EET CAL 4	08/20/25 10:32

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Client Sample ID: Well 13 Step

Lab Sample ID: 380-165557-1

Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	Evaporation			732651	OGC	EET SL	08/19/25 08:42
Total/NA	Analysis	900.0		1	732927	SWS	EET SL	08/21/25 21:08
Total/NA	Prep	PrecSep-21			732650	JTR	EET SL	08/19/25 08:29
Total/NA	Analysis	903.0		1	735578	SWS	EET SL	09/11/25 18:49
Total/NA	Prep	PrecSep_0			732653	JTR	EET SL	08/19/25 08:46
Total/NA	Analysis	904.0		1	735577	SWS	EET SL	09/11/25 11:55
Total/NA	Prep	PrecSep-7			732130	JTR	EET SL	08/15/25 08:49
Total/NA	Analysis	905		1	733702	SWS	EET SL	08/26/25 14:48
Total/NA	Analysis	Ra226_Ra228 Pos		1	735340	SCB	EET SL	09/11/25 13:58
Total/NA	Prep	Coprecipitation			732656	OGC	EET SL	08/19/25 08:48
Total/NA	Analysis	SM7110C		1	732928	CMM	EET SL	08/21/25 21:29

Client Sample ID: Trip Blank

Lab Sample ID: 380-165557-2

Date Collected: 08/11/25 10:00
Matrix: Water
Date Received: 08/12/25 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	611135	VYF4	EET CAL 4	08/14/25 00:54
Total/NA	Analysis	624.1	RA	1	611414	AH8S	EET CAL 4	08/14/25 11:29
Total/NA	Analysis	8015B		1	615790	W4LC	EET CAL 4	08/23/25 13:30
Total/NA	Prep	8011			686677	USL7	ELLE	08/18/25 00:19
Total/NA	Analysis	8011		1	686773	M6UH	ELLE	08/18/25 11:31

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	08-27-25
A2LA	Dept. of Energy	0001.01	08-27-25
A2LA	ISO/IEC 17025	0001.01	08-27-25
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-26
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	08-27-25
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	09-15-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA011	06-30-26
New York	NELAP	10670	09-09-25
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	09-01-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	08-24-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	09-14-25
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	09-03-25
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	08-27-25

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-08-26
Florida	NELAP	E87575	06-30-26
Louisiana (All)	NELAP	03073	07-01-26
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-26
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167	07-08-26
US Fish & Wildlife	US Federal Programs	A20571	06-30-26
USDA	US Federal Programs	525-23-4-22573	01-24-28
Washington	State	C788	07-13-26
Wisconsin	State	399133460	08-31-26

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	07-01-26
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	10-01-26
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	12-31-25
Oregon	NELAP	4157	09-01-26
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25 *
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-31-26
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	ELLE
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
608.3	Organochlorine Pesticides in Water	EPA	EET CAL 4
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CAL 4
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
8015C	Glycols- Direct Injection (GC/FID)	SW846	ELLE
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1640	Metals (ICPMS)	EPA	EET SSM
6010D	Metals (ICP)	SW846	EET CAL 4
6020	Metals (ICP/MS)	SW846	EET CAL 4
1664A	HEM and SGT-HEM	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
410.4	COD	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EET CAL 4
SM 2520B	Salinity	SM	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
SM 4500 NO3 E	Nitrogen, Nitrate	SM	EET CAL 4
SM 5310C	TOC	SM	EET CAL 4
Total Nitrogen	Nitrogen, Total	EPA	EET CAL 4
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
SM7110C	Gross Alpha by Co-Precipitation	SM	EET SL
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
410.4	COD	EPA	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	ELLE
8011	Microextraction	SW846	ELLE
8015 DAI Prep	Preparation, Direct Aqueous Injection	SW846	ELLE
Coprecipitation	Preparation, Coprecipitation	None	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
Filtration	Sample Filtration	None	EET CAL 4
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Method	Method Description	Protocol	Laboratory

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-165557-1
SDG: Well 13 Step

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-165557-1	Well 13 Step	Water	08/11/25 10:00	08/12/25 10:22	Hawaii
380-165557-2	Trip Blank	Water	08/11/25 10:00	08/12/25 10:22	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s)	COC No:
Client Contact: Jordan Moniuszko	Phone: 808.284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808.284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B_300_SM2520B, SM4500_SiO2_Br, Cl, F, 904_SI, Salinity, Alkalinity	351.2- Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310B - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900.0 - Gross Beta Only	903.0_Ra226_905.0_Sr90	904.0 - Radium 228	Ra226_228GEPC_P - Local Method	1640 - dissolved Metals (15) Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Ag, V, Zn	1631E - Dissolved Mercury, Total	6010D - Dissolved Metals (6): Ca, Fe, Li, Mg, K, Na, Sr	Total Number of containers	Special Instructions/Note x = testing comes from another container.
			Preservation Code:				N	S	S	S	D	D	D	D	N	D	A	D		
Well 13 Step	8/11/25	10:00	G	Saltwater	N		2	1	1	3	1	1	2	1	1	1	1	1	11	

380-165557 COC

Preservation Codes.
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S H2SO4
T - TSP Dodecahydrate
U Acetone
V - MCAA
W pH 4-5
Y - Trizma
Z other (specify)
Other:

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III, IV Other (specify)

Special Instructions/QC Requirements: FedX: 3420 1201 2018

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	8/11/25 2:00	INTERA Inc	[signature] Mark Wrotna	8/12/25 1022	OCHP

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: (630A) 2.6 + 0.0 = 2.6 ice - frozen

Ver: 01/16/2019

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s)	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	~~624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)~~	625.1 SVOCs, 608.3 Organochlorine Pesticides, PCBs	~~8045B/8260D_Hawaii GRO C4-12~~	8015B_Hawaii DRO C8-24, CRO C24-44	1664A Oil and Grease	~~Extra volume~~ ~~Please hold~~	625.1 Sim 1,4-dioxane	~~8011 Ethylene Dibromide~~	~~6020 Uranium~~	~~8045C Ethylene Glycol~~		Total Number of containers	Special Instructions/Note. x = testing comes from another container.
			Preservation Code:				N	A	N	A	N	S	D	N	A	N	N			
Well 13 Step	8/11/25	0:00	G	Saltwater	N		1	3	3	2	2	1	1	2	2	1	2		~~20~~	11

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III, IV Other (specify)

Special Instructions/QC Requirements: FedEx: 3420 1201 2018

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	8/11/25 2:00	INTERA Inc	[signature]	8/12/25 1022	EEHP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No | Cooler Temperature(s) °C and Other Remarks: (630A) 2.6 + 0.0 - 2.6 ice - frozen

Preservation Codes.

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K EDTA
L EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U Acetone
V MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other

Ver: 01/16/2019

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler:	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No: 380-89100-26842.3
Client Contact: Jordan Moniuszko	Phone:	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin	Page: Page 3 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested:			
City: Kailua	TAT Requested (days):			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera.com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
N - None
S - H2SO4
D - HNO3
A - HCL

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	~~8260B_300_ORGEM_28D_8M2520_B~~	~~351.2 - Total Kjeldahl Nitrogen (TKN)~~	~~410.4_tt - Low Level Chemical Oxygen Demand (COD)~~	~~SM5310B - Total Organic Carbon (TOC)~~	~~SM7110C - Gross Alpha By Co Precip~~	~~900.1 - Gross Beta Only~~	8011 MOD EDB	8015B GRO	~~1940 - Al, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Se, Sr, Ag, Tl, V~~	~~7470A - Mercury, Total~~	~~6010B - Ca, Fe, K, Mg, Na~~	624.1 - (MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	~~608.3 - PCB - 608.3 - Pest - 625.1~~	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	S	S	D	D	N	A	N	A	N	A	N		
Trip Blank	8/11/25			Water									2	2				2		6	
~~Trip Blank~~				Water																	
~~Trip Blank~~				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time:	Method of Shipment: FedEx 392012012018

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8/11/25 2:00		[signature] Uakumura	8/12/25 1022	EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Custody Seal No

Cooler Temperature(s) °C and Other Remarks: (IR-30A) 2.6 ± 0.0 2.6 ice - frozen

Ver: 11/10/2022

Page 76 of 96

9/29/2025

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808.284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808.284.3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	~~Perform MS/MSD (Yes or No)~~	2320B, 300, SM2520B, SM4500_SiO2: Br, Cl, F, SO4, Si, Salinity, Alkalinity	~~351.2 - Total Kjeldahl Nitrogen (TKN)~~	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900.0 - Gross Beta Only	903.0 Ra226, 905_Sr90	904.0 - Radium-228	Ra228_228GFPC_P - Local Method	1640 - dissolved Metals (15): Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Ag, V, Zn	~~46345 - Dissolved Mercury, Total~~	6010D - Dissolved Metals (6): Ca, Fe, Li, Mg, K, Na, Sr	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	S	S	S	D	D	D	D	N	D	A	D		
Well 13 Step	8/11/25	10:00	G	Saltwater	N		2	1	1	3	1	1	2	1	0	1	1	1	24	

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)

Other:

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested. I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX Priority Overnight 3920 1201 2029		
Relinquished by:	Date/Time: 8/11/25 2:00	Company: INTERA Inc	Received by:	Date/Time: 08/12/25 10:22	Company: EEAP
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 751A 1.6-0.0=1.6 REAL FROZEN		

Ver 01/16/2019

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808.284.3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808.284.3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	~~625.1 SVOCs, 608.3 Organochlorine Pesticides, PCBs~~	8015B/8260D_Hawaii GRO C4-12	~~8045B_Hawaii DRO C9-24, ORO C24-44~~	~~1664A Oil and Grease~~	~~Extra volume - Please hold~~ Extra Volume - Please hold	~~625.1 SIM 1,4-dioxane~~	8011 Ethylene Dibromide	~~6020C Uranium~~	8015C Ethylene Glycol		Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	A	N	A	N	G	D	N	A	N	N			
Well 13 Step	8/11/25	10:00	G	Saltwater	N		1	3	3	2	2	1	1	2	2	1	2		~~30~~ 24	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX Priority Overnight 392012012029			
Relinquished by:	Date/Time: 8/11/25 2:00	Company: INTERA Inc	Received by:	Date/Time: 08/12/25 10:22	Company: EEAP	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 75/A 1.6-0.0=1.6 REAL FROZEN			

Ver 01/16/2019

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-240058.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165557-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 9/9/2025			Preservation Codes: -
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM7110C/COPRECIPGross Alpha by Co-Precip	900.0/EvaporationGross Beta Only	903.0/PrecSep_21Radium-226	904.0/PrecSep_0Radium-228	Ra226_228GFPC_P	905_Sr90/PrecSep_7Strontium-90	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
Well 13 Step (380-165557-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	X	X	5	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Guillermo	8/13/25 10:42		Cheyenne Forrest	0830 AUG 14 2025	
Relinquished by:	Date/Time:	Company	Received by: Cheyenne Forrest	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

9/29/2025

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-240052.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165557-1
Address: 5755 8th Street East, ,	Due Date Requested: 9/9/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Well 13 Step (380-165557-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	2	High TDS sample, dilute accordingly

small blue coleman

Therm. ID: SC04 Cust. Seal: (Y) / N
Uncorr./Corr. Temp: 1.8 / 1.9 °C
Delivery: UPS / (FedEx) / Other: _____
Ice Type: Blue / Dry / (Wet) / None
Label Ver.: JS Packing: Bubble
8/14/25

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: (Oe/lelo)	Date/Time: 8/13/25 8:45	Company	Received by: Jesse Smith	Date/Time: 8/14/25 @9:45	Company EETN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

FedEx PO Trk#: 4612 8638 5891

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 570-470462.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165557-1
Address: 5755 8th Street East, ,	Due Date Requested: 9/23/2025			Preservation Codes:
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Therm. ID: SC02 Cust. Seal: (Y)/ N
Uncorr./Corr. Temp: 1.8 / 2.1 °C
Delivery: UPS / (FedEx) / Other: ____
Ice Type: Blue / Dry / (Wet) / None
Label Ver.: V Packing: D
Sa Blue

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total	1640/FIELD_FLTRD(MOD) Custom List 7: 19+ Metals	1631E/FIELD_FLTRDMercury, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
Well 13 Step (380-165557-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X		High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification 4803 1217 5137 *Level 1 radioactive*			*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*	
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:	
Relinquished by:	Date/Time: 9-17-25 15-	Company: EC	Received by:	Date/Time: 9/23/25 9:40	Company: EC/N
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

Ver: 10/10/2024

9/29/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-240048.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165557-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 9/9/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 13 Step (380-165557-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	6	High TDS sample, dilute accordingly
Trip Blank (380-165557-2)	8/11/25	10:00 Hawaiian	G	Water			X			2	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Guillermo	Date/Time: 8/13/25 8:22	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: MMB	Date/Time: 08/14/25 0940	Company ELLEX
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: R:2.4		C:1.0

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins

E Loc: 380
165557

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-240040.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165557-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/9/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	608.3_PCB/608_Prep_PCBRoutine PCB Aroclor List	SM4500_NO3_ENitrate-Nitrite as N	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	Nitrogen,Total/Total Nitrogen	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	8015B_GRO/5030C(MOD) Gasoline Range Organics	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
Well 13 Step (380-165557-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	21	High TDS sample, dilute accordingly
Trip Blank (380-165557-2)	8/11/25	10:00 Hawaiian	G	Water			X												X	4	High TDS sample, dilute accordingly

380-165557 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Xm	8/13/25 1130	EEA		8/13/25 11:30	EEA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.4/1.4 IR02

Ver: 10/10/2024

9/29/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-240040.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165557-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/9/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3510C_LVIDRO (C10-C28)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	2540C_CalcdTotal Dissolved Solids (TDS)	5310CTOC, Standard analysis, 3 replicates	6010D/3005A(MOD) Custom 6010D Metals List	6020/3005A(MOD) Custom 6020 Metals List	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
Well 13 Step (380-165557-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	X	X	21	High TDS sample, dilute accordingly
Trip Blank (380-165557-2)	8/11/25	10:00 Hawaiian	G	Water									4	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:		
Relinquished by:	Date/Time: 8/13/25 1:30	Company EET	Received by:	Date/Time: 8/13/25 11:30	Company TSC	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Ver: 10/10/2024

Chain of Custody Record

eurofins

Loc: 380
165557

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 410-3902110.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165557-
Address: 2841 Dow Avenue, Suite 100,	Due Date Requested: 9/9/2025			Preservation Codes: N - None
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	608.3_PCB/608_Prep_PCBRoutine PCB Aroclor List	SM4500_NO3_ENitrate-Nitrite as N	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	Nitrogen,TotalTotal Nitrogen	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	8015B_GRO/5030C(MOD) Gasoline Range Organics	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	N	N	N	N	N	N	N	N		
Well 13 Step (380-165557-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	2	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Environment Testing, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Environment Testing, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Environment Testing, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Lancaster Laboratories Environment Testing, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Kristi Ream	8/15/25 1513	ELLET	fedex		
fedex				8/16/25 10:00	F.C

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		2.7/2.7 IR92

380-165557 Chain of Custody

Ver: 10/10/2024

9/29/2025

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 410-3902110.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-165557-1
Address: 2841 Dow Avenue, Suite 100,	Due Date Requested: 9/9/2025			Preservation Codes: N - None
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3510C_LVIDRO (C10-C28)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	2540C_CalcdTotal Dissolved Solids (TDS)	5310CTOC, Standard analysis, 3 replicates	6010D/3005A(MOD) Custom 6010D Metals List	6020/3005A(MOD) Custom 6020 Metals List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	N		
Well 13 Step (380-165557-1)	8/11/25	10:00 Hawaiian	G	Water			X	X	X	X	X	X	2	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Environment Testing, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Environment Testing, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Environment Testing, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Lancaster Laboratories Environment Testing, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Kristin Adams	8/15/25 1513	ELLET	fedex		
Relinquished by: fedex	Date/Time:	Company	Received by:	Date/Time: 8/16/25 10:00	Company Ec
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7/2.7 IR92

Ver: 10/10/2024

eurofins | Environment Testing

Date:	8/14/2025
End Time:	21:40
KI Paper Lot:	N/A
Analyst:	JS
Pipette:	N/A

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	104127
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-165557-N-1	A	Y	5/2	

JS 8/14/25

eurofins | Environment Testing

Date:	8/14/2025
End Time:	21:48
pH Paper Lot:	HC457271
Analyst:	JS
Pipette:	MP_TM86

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	83141
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-165557-M-1	>2	<2	A	0.725	

JS 8/14/25

Total 1648

eurofins | Environment Testing

Date:	9/23/2025
End Time.	14:15
pH Paper Lot:	hc441704
Analyst:	[illegible]
Pipette:	NO

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	107605
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-165557-B-1	<2	NO	NO	NO	NO

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165557-1
SDG Number: Well 13 Step

Login Number: 165557
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165557-1
SDG Number: Well 13 Step

Login Number: 165557
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 08/13/25 12:55 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165557-1
SDG Number: Well 13 Step

Login Number: 165557
List Number: 6
Creator: Ferreira, Bruno

List Source: Eurofins Calscience
List Creation: 08/18/25 11:47 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165557-1
SDG Number: Well 13 Step

Login Number: 165557
List Number: 7
Creator: Le, Sunny

List Source: Eurofins Calscience
List Creation: 09/16/25 03:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165557-1
SDG Number: Well 13 Step

Login Number: 165557
List Number: 3
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 08/14/25 11:59 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165557-1
SDG Number: Well 13 Step

Login Number: 165557
List Number: 5
Creator: Singh, Jaskaran

List Source: Eurofins Seattle Specialty Metals
List Creation: 08/14/25 10:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-165557-1
SDG Number: Well 13 Step

Login Number: 165557
List Number: 4
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 08/14/25 11:55 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ICA Labs Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.icalabs.com

Jordan Moniuszko
INTERA
74 Kihapai St
Kailua, HI 96734
USA

Dear Jordan,

Shipment sent for radiocarbon (^{14}C) dating analysis and arrived at ICA Labs on August 13th, 2025. Each of the samples was processed through the 3 main steps required to prepare a sample for AMS analysis: Pretreatment, Combustion or Acid Digestion, and Reduction (Graphitization). Accelerator Mass Spectrometry was used for radiocarbon analysis, and results are provided in this Report.

Radiocarbon results were provided on August 25th, but the report did not include the $\Delta^{13}C$ results. This report includes the $\Delta^{13}C$ results.

The first section of the Report includes the results for any samples submitted and for the Quality Control samples analyzed in parallel with the sample. Quality Control results in this report met acceptance criteria. The later part of the Report includes a Summary of Methods that provides some context on protocols used.

The Team at ICA Labs appreciates you for trusting us with your samples. Please reach out if there are any questions.

Sincerely,

Signed by:
Ricky Diaz
8ACC8E1173CD446...

9/24/2025

Docusign Envelope ID: 87D939AD-9CF9-4528-91D8-0C9CCA99D334

ICA Labs Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.icalabs.com

^{14}C AMS Report

Submitter Name: Jordan Moniuszko
Company Name: INTERA
Address: 74 Kihapai St
Kailua, HI 96734
USA
Date Received: August 13th, 2025
Date Reported: August 25th, 2025 for ^{14}C and September 24th for ^{13}C
Project #: Kalaeloa Desalination

ICA ID	Submitter ID	Material Type	Pretreatment	δ^{13}C (o/oo)	Conventional Age	Calibrated Age
14C-10283	Well 15 120 Hr	Water	DIC	-16.01	**2800 +/- 30 BP**	**Cal 1050 - 1030 BC (1.6%) Cal 1020 - 890 BC (88.2%) Cal 880 - 840 BC (5.7%)**
14C-10284	Well 15 120 Hr Dup	Water	DIC	-18.63	**2630 +/- 30 BP**	**Cal 890 - 880 BC (0.7%) Cal 840 - 770 BC (94.8%)**
14C-10285	MW1	Water	DIC	-14.13	**5360 +/- 40 BP**	**Cal 4330 - 4150 BC (65.5%) Cal 4140 - 4050 BC (29.9%)**
14C-10286	MW2	Water	DIC	-14.23	**5170 +/- 30 BP**	**Cal 4050 - 3940 BC (94.7%) Cal 3840 - 3820 BC (0.8%)**
14C-10287	Well 14 Step	Water	DIC	-18.22	**2520 +/- 30 BP**	**Cal 790 - 720 BC (25.7%) Cal 710 - 540 BC (69.8%)**
14C-10288	Well 14 120 Hr	Water	DIC	-16.26	**2530 +/- 30 BP**	**Cal 800 - 730 BC (30.3%) Cal 700 - 540 BC (65.1%)**
14C-10289	Well 14 EB	Water	DIC	-25.82	**730 +/- 30 BP**	**Cal 1220 - 1310 AD (92.4%) Cal 1360 - 1380 AD (3.1%)**
14C-10290	Well 13 Step	Water	DIC	-17.62	**2820 +/- 30 BP**	**Cal 1110 - 1090 BC (0.5%) Cal 1080 - 890 BC (94.9%)**
14C-10291	Well 13 Step Dup	Water	DIC	-17.36	**2700 +/- 30 BP**	**Cal 910 - 800 BC**

Quality Control Results

QC #	Quality Control Material	Acceptance Criteria	Measured Value
Wheel QC 1	**IAEA C7**	49.53 +/- 0.70 pMC	49.30 +/- 0.20 pMC
Wheel QC 2	**IAEA C5**	23.05 +/- 0.70 pMC	23.27 +/- 0.10 pMC
All Quality Control Analyses Pass Acceptance Criteria			

Summary of Methods

Pretreatment

- **Acid/Alkali/Acid (AAA):** Also known as ABA (Acid/Base/Acid), this pretreatment protocol is applied to most organic material types. A hot hydrochloric acid (HCl) wash is applied to remove any carbonates (if present), and then hot sodium hydroxide (NaOH) washes is performed for removal of secondary humic acids. A final hot HCl wash is applied prior to rinsing the sample solution neutral, then dried to prepare for combustion.
- **Acid Etched (AE):** This pretreatment protocol is applied to most carbonates, such as shells and corals. Material is first rinsed with water and mechanically cleaned to remove any debris if present, then exposed to a dilute HCl wash. The sample solution is then rinsed neutral and dried to prepare for acid digestion.
- **Acid Only (AO):** This pretreatment protocol is typically applied to organic sediments. Sample is mechanically sieved, then a HCl wash is applied to remove any carbonates that may be present. The sample solution is then rinsed neutral and dried to prepare for combustion.
- **Collagen Extraction With Acid/Alkali/Acid (Col-AAA)**: This protocol is applied to bones. The sample surface is cleaned, then the AAA process & extraction the protein component of the bone (collagen) through the removal of the mineral portion of the bone (calcium hydroxyapatite) is performed. The treated collagen extracted is rinsed neutral and dried to prepare for combustion.
- **Carbonate Extraction:** This protocol is typically applied to cremated bones. These bones have been heated to temperatures above 600°C and as a result, the bioapatite forms larger and better structure crystals that are typically not susceptible to contamination over time. After cleaning the external surface of the sample, it is treated with NaClO for 48 hours, then CH_3COOH for 24 hours. The sample is then rinsed neutral and dried to prepare for acid digestion.
- **Dissolved Inorganic Carbon (DIC)**: Strontium Chloride (SrCl) is added to ~250 mL of water under slightly basic conditions. Over time, carbon in the water precipitates as $SrCO_3$. The precipitate is dried and prepared for acid digestion.

Combustion

For each sample, some of it is weighed and placed in quartz tube. The tube containing the sample is subsequently brought to vacuum, then an oxygen source is introduced into the tube. The tube is then sealed and exposed to heat (800°C) for at least 30 minutes to drive the reaction, which causes the carbon in the sample to be converted to CO_2 gas. The other product in the reaction is H_2O. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Acid Digestion

Carbonate samples go through the acid digestion process after pretreatment. This involves crushing some of the pretreated material, then placing it in a tube that is subsequently evacuated. The acid digestion reaction is then started by adding H_3PO_4 to the sample in the vacuum environment. This reaction releases the carbon in the sample as CO_2 gas. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Reduction (Graphitization)

The evolved CO_2 is distilled through a cold (-78°C) solid CO_2/C_3H_8O slush to remove water as it is transferred under a vacuum to a reduction reaction vessel via a cryogenic pump using liquid N_2 (-195°C). The reduction reaction vessel contains Co as the catalyst and $Mg(ClO_4)_2$ as a drying agent. Hydrogen gas is added to the reduction reaction vessel and then heat is introduced (550°C) to drive the reaction. An unbalanced summary of the 2-step reduction reaction is as follows:

$$CO_2 + H_2 \xrightarrow[550^{o}C,\ Co]{\blacktriangle} CO + H_2O$$

$$CO + H_2 \xrightarrow[550^{o}C,\ Co]{\blacktriangle} C_{(graphite)} + H_2O$$

Accelerator Mass Spectrometry (AMS) Analysis

The graphite obtained for each sample is pressed into an aluminum cathode, and then placed into a sample wheel that is loaded into one of the ion sources in the AMS. The sample wheel includes QC samples of known values in addition to unknowns so that accuracy & precision can be verified. Percent Modern Carbon and a Conventional Age is then determined for each sample.

- AMS = Accelerator Mass Spectrometry.
- pMC = Percent Modern Carbon.
- IAEA = International Atomic Energy Agency.
- Calibrated ages are attained using IntCal20 or Bomb 21 NH1.
- Unless otherwise stated, the error reported is two sigma standard deviation (95.4%).
- Conventional ages are given in BP (BP=Before Present, 1950 AD) or F14C when samples are post-1950, and have been corrected for natural isotope fractionation.

FQ Labs

3170 Ualena Street, Unit A
Honolulu, HI 96819
Phone: 808-839-9444, Fax: 808-839-9744

Intera Incorporated
74 Kihapai Street
Kailua, HI, 96734
Attn:
Project Name: Kalaeloa Desalination

CERTIFICATE OF ANALYSIS

Received: 08/11/2025 @ 1:58 PM
Completed: 08/18/2025 @ 11:34 AM
Project Number: 250811-4007-008
Temperature: 1.8 °C
Client Project No: LSBRG.Kalaelo

Sample ID: 250811-4007-008-01 | **Water Sample- Lab # 15** | **Well 13 Step** | **Sampled: 8/11/2025 @ 10:00 AM** | **Sampler: Jordan Moniuszko**

Analysis	Results	Units	MDL	Test Method	Analyzed		By
Biochemical Oxygen Demand	<1.0	mg/L	1.0	SM 5210 B	08/12/2025	12:58 PM	EA
Nitrogen, Nitrate	0.142	mg/L	0.008	EPA 353.1, Rev2.0	08/11/2025	3:01 PM	AA
Nitrogen, Nitrite	<0.004	mg/L	0.004	EPA 353.2,Rev2.0	08/11/2025	3:01 PM	AA
Hexavalent Chromium	<0.001	mg/L	0.001	SM 3500-Cr-B	08/11/2025	3:01 PM	AA
Phosphorus, Total	0.104	mg/L	0.003	EPA 365.1, Rev2.0	08/18/2025	10:04 AM	AA

Sample ID: 250811-4007-008-02 | **Water Sample- Lab # 16** | **Well 13 Step MSD** | **Sampled: 8/11/2025 @ 10:00 AM** | **Sampler: Jordan Moniuszko**

Analysis	Results	Units	MDL	Test Method	Analyzed		By
Biochemical Oxygen Demand	<1.0	mg/L	1.0	SM 5210 B	08/12/2025	1:04 PM	EA
Nitrogen, Nitrate	0.129	mg/L	0.008	EPA 353.1, Rev2.0	08/11/2025	3:01 PM	AA
Nitrogen, Nitrite	<0.004	mg/L	0.004	EPA 353.2,Rev2.0	08/11/2025	3:01 PM	AA
Hexavalent Chromium	<0.001	mg/L	0.001	SM 3500-Cr-B	08/11/2025	3:01 PM	AA
Phosphorus, Total	0.105	mg/L	0.003	EPA 365.1, Rev2.0	08/18/2025	10:04 AM	AA

Approved By: Gregg Kawamoto
Monday, August 18, 2025

FQLabs
Analysts of Excellence
3170-A Ualena Street • Honolulu, HI 96819 • Tel: (808) 839-9444 • Fax: (808) 839-9744 • fql@fqlab.com
FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

Intera Incorporated
74 Kihapai Street
Kailua, HI 96734
Attn:
Project Name: Kalaeloa Desalination

Received: 8/11/2025
Completed: 8/18/2025
Project Number: 250811-4007-008

Analysis	QC Test	Results	MDL	Units	Spike Level	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
Glucose-Glutamic Acid Check (GGA) 8/12/2025											
BOD	Blank	<1.0	1.00	mg/L	-	-	-	-	-	-	
BOD	GGA	197	1.00	mg/L	198±30.5	-	-	-	-	-	Pass
The results are within the control limit range of 198 ± 30.5											
Batch Prepared and Analyzed 8/11/2025											
Nitrate	Blank	<0.008	0.008	mg/L	-	-	-	-	-	-	
Nitrate	LCS	0.52	0.008	mg/L	0.50	-	104	90-110%	-	-	
Nitrate	Duplicate	0.97	0.008	mg/L	-	0.84	-	-	14.2	20%	
Nitrate	Matrix Spike	1.53	0.008	mg/L	1.00	0.48	105	90-110%	-	-	
Nitrite	Blank	<0.004	0.004	mg/L	-	-	-	-	-	-	
Nitrite	LCS	0.49	0.004	mg/L	0.50	-	98.8	90-110%	-	-	
Nitrite	Duplicate	0.54	0.004	mg/L	-	0.54	-	-	0.19	20%	
Nitrite	Matrix Spike	1.20	0.004	mg/L	1.00	0.27	92.5	90-110%	-	-	
Chromium VI	Blank	<0.001	0.001	mg/L	-	.	-	-	-	-	
Chromium VI	LCS	1.02	0.001	mg/L	1.00	-	102	85-115%	-	-	
Chromium VI	Duplicate	0.00	0.001	mg/L	-	0.00	-	-		20%	
Chromium VI	Matrix Spike	0.52	0.001	mg/L	0.50	0.00	103	85-115%	-	-	
Batch Prepared and Analyzed 8/18/2025											
Total Phos	Blank	<0.003	0.003	mg/L	-	-	-	-	-	-	
Total Phos	LCS	0.90	0.003	mg/L	1.00	-	90.2	90-110%	-	-	
Total Phos	Duplicate	1.00	0.003	mg/L	-	1.11	-	-	10.4	20%	
Total Phos	Matrix Spike	0.99	0.003	mg/L	0.50	0.50	97.4	90-110%	-	-	

Notes:

B1	Target Analyte detected in method blank was above the method detection limit.
D8	The duplicate exceeded the acceptance limit due to sample matrix effects.
dry	Sample results reported on a dry weight basis.
LCS	Laboratory Control Standard
M8	The matrix spike was below the acceptance limits. See Blank Spike (LFB)
M9	The matrix spike was above the acceptance limits. See Blank Spike (LFB)
MDL	Method Detection Levels are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
ND	Not Detected
NR	Not Reported
R8	The LCS recovery was below the acceptance limits.
R9	The LCS recovery was above the acceptance limits.
REC	Recovery

FQLabs
Analysts of Excellence
3170-A Ualena Street • Honolulu, HI 96819 • Tel: (808) 839-9444 • Fax: (808) 839-9744 • fql@fqlab.com

FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

Intera Incorporated
74 Kihapai Street
Kailua, HI 96734
Attn:
Project Name: Kalaeloa Desalination

Received: 8/11/2025
Completed: 8/18/2025
Project Number: 250811-4007-008

Analysis	QC Test	Results	MDL	Units	Spike Level	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
RPD	Relative Percent Difference										

FQLabs

3170-A Ualena Street
Honolulu, HI 96819

Invoice

Date	Invoice #
8/18/2025	33962

Bill To
Intera Incorporated 74 Kihapai St. Kailua, HI 96734 Attn:Jordan Moniuszko

P.O. No.	Terms	Contract #	Lab #
	Due on receipt		15-16

Description	Qty	Rate	Amount
Project Name: Kalaeloa Disalination Project NO: LSBRG.Kalaelo			
Nitrogen, Nitrate EPA 353.2, Rev2.0**	2	140.00	280.00T
Nitrogen, Nitrite (water)**	2	130.00	260.00T
Phosphate, total	2	73.37	146.74T
BOD-5	2	99.00	198.00T
Hexavalent chromium (CrVI) Dissolved, SM 3500-Cr B**	2	205.00	410.00T
**RUSH Fee for Short Holding Time ***Weekend Reading Fee "WAIVED" Sample Received on 08/11/25			

Make Check Payable To:FQLabs

Subtotal	$1,294.74
Sales Tax (4.712%)	$61.01
Total	$1,355.75

FQLabs

3170-A Ualena St.
Honolulu, HI 96819
Tel: 808-839-9444 Fax: 808-839-9744 website: www.fqlabs.com

CHAIN OF CUSTODY AND ANALYSIS REQUEST

DATE: _____ PAGE _____ OF _____
CUSTOMER NO. _____ LAB NO. _____

CLIENT NAME: Intera Incorporated EMAIL: jmoniuszko@intera.com

ADDRESS: 74 Kihapai Street Kailua, HI 96734

PROJECT NAME: Kalaeloa Desalination PROJECT NO: LSBRG.Kalaelo P.O. NO:

PROJECT MANAGER: PHONE NO: 808.284.3204 FAX NO:

SAMPLER NAME: (Printed) Jordan Moniuszko (Signature)

TAT (Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N= Normal

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other:

ANALYSES REQUESTED

AIRBILL NO:

COOLER NO:

SAMPLE TEMP: 1.8°C

REMARKS:

SAMPLE CONDITION/ COMMENTS:

LAB USE ONLY SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX WATER	MATRIX OTHER	CONTAINER #	CONTAINER TYPE	GRAB/ COMP	5210B- BOD-5	353.2 Nitrogen, Nitrate	353.1 Nitrogen, Nitrite	365.1 Total Phosphorus	7196A Hexavalent Chromiu			
15	8/11/25	10:00	Well 13 Step	✔		3		G	✔	✔	✔	✔	✔			
16	8/11/25	10:00	Well 13 Step MSD	✔		3		G	✔	✔	✔	✔	✔			Matrix Spike Dup
																Please 90.7c

Relinquished By: (Signature and Printed Name) Date: 8/11/25 Time:
Received By: (Signature and Printed Name) Date: 8/11/25 Time: 1358

Relinquished By: (Signature and Printed Name) Date: Time:
Received By: (Signature and Printed Name) Date: Time:

Is this a compliance drinking water sample? Yes No
Sign and Print Date: Time:

SPECIAL INSTRUCTIONS:

SAMPLE DISPOSITION:

1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless additional storage time is requested.
3. Storage time requested: _____ days.

By _____ Date _____

Oxygen, Hydrogen isotopic analysis of waters
Instrumentation: Picarro L2130-i High Precision 18O and D Isotopic Wat

	Average		Standard Deviation	
Sample Name	**$\delta^{18}O$ (‰)**	**$\delta^{2}H$ (‰)**	**$\delta^{18}O$**	**$\delta^{2}H$**
Well 14 Step 120Hr 1	***0.2***	***1.9***	***0.03***	***0.21***
Well 14 Step 120Hr 2	***0.3***	***2.6***	***0.07***	***0.25***
Well 13 Step 1	***0.1***	***1.0***	***0.05***	***0.17***
Well 13 Step 2	***0.1***	***1.2***	***0.03***	***0.14***
Well 13 Step DUP 1	***0.1***	***1.2***	***0.03***	***0.09***
Well 13 Step DUP 2	***0.1***	***1.2***	***0.04***	***0.12***
Well 13 120Hr 1	***0.1***	***1.4***	***0.02***	***0.06***
Well 13 120Hr 2	***0.1***	***1.4***	***0.03***	***0.15***

Comments:
Isotopic corrections are calculated using standards prepared by our labo
All samples were analyzed in at least triplicate, and isotopic values are re
The software Chemcorrect was used to flag for organic contamination; a
otherwise noted.

er Analyzer via A0211 High Precision Vaporizer and Picarro A0325 Autosampler

notes

Evian Water as a check standard:

	δ18O	δ2H
Accuracy	**-0.002**	**-0.84**
Precision	**0.05**	**0.43**

ratory and run along with your samples.
eported in δ-notation relative to V-SMOW.
ll samples clear of contamination unless

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

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JOB DESCRIPTION

Kalealoa Desalination Project
Well 14 120 Hr

JOB NUMBER

380-164187-1

Eurofins Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Drinking Water and Wastewater West, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Revision 1

Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 8
Client Sample Results 9
Surrogate Summary 17
Tracer Carrier Summary 20
QC Sample Results 21
QC Association Summary 48
Lab Chronicle 55
Certification Summary 57
Method Summary 60
Sample Summary 62
Chain of Custody 63
Field Data Sheets 80
Receipt Checklists 82

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-164187-1

REVISION

The report being provided is a revision of the original report sent on 9/15/2025. The report (revision 1) is being revised due to added additional metals analytes.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 8/5/2025 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.4°C and 2.7°C.

GC/MS VOA
Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-607611. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following samples were received preserved with hydrochloric acid: Well 14 120 Hr (380-164187-1) and Trip Blank (380-164187-2). The requested target analyte list contains 2-Chloroethyl vinyl ether and/or Acrolein, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-608267. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 625

Method 625.1: The continuing calibration verification (CCV) associated with batch 570-610967 recovered above the upper control limit for 2-Methylphenol and Hexachloroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are:Well 14 120 Hr (380-164187-1) and (CCVIS 570-610967/2).

Method 625.1: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 570-608267 and analytical batch 570-610322 recovered outside control limits for the following analyte(s): 4-Nitrophenol and Benzidine. 4-Nitrophenol and Benzidine have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-608267 and analytical batch 570-610322 recovered outside control limits for the following analytes: Pyridine.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015B_DRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-609530. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method: 8015B_DRO

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015C_DAI_GLY: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to continuing calibration verification low for 1,4-Butanediol and Ethylene glycol in the initial analysis. Well 14 120 Hr (380-164187-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
Method 608.3_PCB: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-607954.

Method 608.3 Pest / 608.3 PCB

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
Method 608.3_Pest: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-607954.

Method 608.3 Pest / 608.3 PCB

Method 608.3_Pest: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-607954 and analytical batch 570-610166 recovered outside control limits for the following analytes: Endrin aldehyde, Heptachlor epoxide and Methoxychlor.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: Well 14 120 Hr (380-164187-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D - Total Recoverable: The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory:. Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

Method 6010D - Total Recoverable: The following sample was diluted due to the nature of the sample matrix: Well 14 120 Hr (380-164187-1). Elevated reporting limits (RLs) are provided.

Method 6020 - Total Recoverable: The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory:. Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

Method 6020 - Total Recoverable: The following sample was diluted due to the nature of the sample matrix: Well 14 120 Hr (380-164187-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 1664A: The following sample formed emulsions during the extraction procedure: Well 14 120 Hr (380-164187-1). The

emulsions were broken up using sodium sulfate.

Method 5310C: The following sample was diluted due to the nature of the sample matrix: Well 14 120 Hr (380-164187-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 900.0: Gross Alpha Beta Batch 731123

The Gross Alpha laboratory control sample (LCS) associated with the following samples recovered at 127%:. The limits in our LIMS system at 75-125% reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of 73-131%. The LCS is within criteria and no further action is required.(LCS 160-731123/2-A)

Method 900.0: Gross Alpha Beta Batch 731123
The detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: Well 14 120 Hr (380-164187-1), (880-61026-C-1-A) and (880-61026-C-1-D DU). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium 228 Batch 731120

The detection goal was not met for the following sample due to a reduced sample volume used in prep attributed to the presence of matrix interferences. Well 14 120 Hr (380-164187-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Client Sample ID: Well 14 120 Hr

Lab Sample ID: 380-164187-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	60		50		ug/L	1		8015B	Total/NA
Bromide	61		4.0		mg/L	40		300.0	Total/NA
Sulfate	2700		40		mg/L	40		300.0	Total/NA
Chloride - DL	19000		500		mg/L	500		300.0	Total/NA
Mercury	3.9		0.50		ng/L	1		1631E	Total/NA
Arsenic	1.5		0.70		ug/L	1		1640	Total/NA
Barium	36		0.50		ug/L	1		1640	Total/NA
Chromium	1.1		1.0		ug/L	1		1640	Total/NA
Iron	160		6.0		ug/L	1		1640	Total/NA
Manganese	110		0.50		ug/L	10		1640	Total/NA
Vanadium	5.2		1.0		ug/L	1		1640	Total/NA
Zinc	41		1.0		ug/L	1		1640	Total/NA
Calcium	420		20		mg/L	10		6010D	Total Recoverable
Magnesium	1300		5.0		mg/L	10		6010D	Total Recoverable
Potassium	450		20		mg/L	10		6010D	Total Recoverable
Sodium	9700		40		mg/L	20		6010D	Total Recoverable
Strontium	8.9		0.10		mg/L	10		6010D	Total Recoverable
SiO2, Silica	9.7		5.4		mg/L	10		6010D	Total Recoverable
HEM: Oil and Grease	1.3		0.94		mg/L	1		1664A	Total/NA
Total Kjeldahl Nitrogen	0.53		0.20		mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	48		10		mg/L	1		410.4	Total/NA
Alkalinity, Total (As CaCO3)	110		5.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate (as CaCO3)	110		5.0		mg/L	1		SM 2320B	Total/NA
Salinity	34		2.0		psu	1		SM 2520B	Total/NA
Total Dissolved Solids	37000		330		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Client Sample ID: Well 14 120 Hr

Date Collected: 08/04/25 09:00
Date Received: 08/05/25 10:30

Lab Sample ID: 380-164187-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/06/25 11:41	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/06/25 11:41	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/06/25 11:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			08/06/25 11:41	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/06/25 11:41	1
1,1-Dichloroethane	ND		1.0		ug/L			08/06/25 11:41	1
1,1-Dichloroethene	ND		1.0		ug/L			08/06/25 11:41	1
1,1-Dichloropropene	ND		1.0		ug/L			08/06/25 11:41	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/06/25 11:41	1
1,2,3-Trichloropropane	ND		5.0		ug/L			08/06/25 11:41	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/06/25 11:41	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/06/25 11:41	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/06/25 11:41	1
1,2-Dibromoethane	ND		1.0		ug/L			08/06/25 11:41	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/06/25 11:41	1
1,2-Dichloroethane	ND		0.50		ug/L			08/06/25 11:41	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			08/06/25 11:41	1
1,2-Dichloropropane	ND		1.0		ug/L			08/06/25 11:41	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/06/25 11:41	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/06/25 11:41	1
1,3-Dichloropropane	ND		1.0		ug/L			08/06/25 11:41	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			08/06/25 11:41	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/06/25 11:41	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/06/25 11:41	1
2,2-Dichloropropane	ND		1.0		ug/L			08/06/25 11:41	1
2-Butanone	ND		10		ug/L			08/06/25 11:41	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			08/06/25 11:41	1
2-Chlorotoluene	ND		1.0		ug/L			08/06/25 11:41	1
2-Hexanone	ND		10		ug/L			08/06/25 11:41	1
4-Chlorotoluene	ND		1.0		ug/L			08/06/25 11:41	1
4-Methyl-2-pentanone	ND		10		ug/L			08/06/25 11:41	1
Acetone	ND		12		ug/L			08/06/25 11:41	1
Acrolein	ND		5.0		ug/L			08/06/25 11:41	1
Acrylonitrile	ND		2.0		ug/L			08/06/25 11:41	1
Benzene	ND		0.50		ug/L			08/06/25 11:41	1
Bromobenzene	ND		1.0		ug/L			08/06/25 11:41	1
Bromochloromethane	ND		1.0		ug/L			08/06/25 11:41	1
Bromodichloromethane	ND		1.0		ug/L			08/06/25 11:41	1
Bromoform	ND		1.0		ug/L			08/06/25 11:41	1
Bromomethane	ND		5.0		ug/L			08/06/25 11:41	1
Carbon disulfide	ND		10		ug/L			08/06/25 11:41	1
Carbon tetrachloride	ND		0.50		ug/L			08/06/25 11:41	1
Chlorobenzene	ND		1.0		ug/L			08/06/25 11:41	1
Chloroethane	ND		1.0		ug/L			08/06/25 11:41	1
Chloroform	ND		1.0		ug/L			08/06/25 11:41	1
Chloromethane	ND		1.0		ug/L			08/06/25 11:41	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/06/25 11:41	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/06/25 11:41	1
Dibromochloromethane	ND		1.0		ug/L			08/06/25 11:41	1

Client Sample ID: Well 14 120 Hr

Lab Sample ID: 380-164187-1

Date Collected: 08/04/25 09:00
Matrix: Water
Date Received: 08/05/25 10:30

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.0		ug/L			08/06/25 11:41	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/06/25 11:41	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			08/06/25 11:41	1
Ethanol	ND		100		ug/L			08/06/25 11:41	1
Ethylbenzene	ND		1.0		ug/L			08/06/25 11:41	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			08/06/25 11:41	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/06/25 11:41	1
Isopropanol	ND		50		ug/L			08/06/25 11:41	1
Isopropylbenzene	ND		1.0		ug/L			08/06/25 11:41	1
m,p-Xylene	ND		1.0		ug/L			08/06/25 11:41	1
Methylene Chloride	ND		2.0		ug/L			08/06/25 11:41	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/06/25 11:41	1
Naphthalene	ND		10		ug/L			08/06/25 11:41	1
n-Butylbenzene	ND		1.0		ug/L			08/06/25 11:41	1
N-Propylbenzene	ND		1.0		ug/L			08/06/25 11:41	1
o-Xylene	ND		1.0		ug/L			08/06/25 11:41	1
p-Isopropyltoluene	ND		1.0		ug/L			08/06/25 11:41	1
sec-Butylbenzene	ND		1.0		ug/L			08/06/25 11:41	1
Styrene	ND		1.0		ug/L			08/06/25 11:41	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			08/06/25 11:41	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/06/25 11:41	1
tert-Butylbenzene	ND		1.0		ug/L			08/06/25 11:41	1
Tetrachloroethene	ND		1.0		ug/L			08/06/25 11:41	1
Tetrahydrofuran	ND		10		ug/L			08/06/25 11:41	1
Toluene	ND		1.0		ug/L			08/06/25 11:41	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/06/25 11:41	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/06/25 11:41	1
Trichloroethene	ND		1.0		ug/L			08/06/25 11:41	1
Trichlorofluoromethane	ND		5.0		ug/L			08/06/25 11:41	1
Trihalomethanes, Total	ND		1.0		ug/L			08/06/25 11:41	1
Vinyl acetate	ND		10		ug/L			08/06/25 11:41	1
Vinyl chloride	ND		0.50		ug/L			08/06/25 11:41	1
Xylenes, Total	ND		1.0		ug/L			08/06/25 11:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*08/06/25 11:41*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*08/06/25 11:41*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*08/06/25 11:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*60 - 140*		*08/06/25 11:41*	*1*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*08/06/25 11:41*	*1*
Dibromofluoromethane	*106*		*60 - 140*		*08/06/25 11:41*	*1*
Toluene-d8 (Surr)	*107*		*60 - 140*		*08/06/25 11:41*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		08/11/25 15:38	08/12/25 21:57	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Client Sample ID: Well 14 120 Hr

Date Collected: 08/04/25 09:00
Date Received: 08/05/25 10:30

Lab Sample ID: 380-164187-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*70*		*30 - 187*	*08/11/25 15:38*	*08/12/25 21:57*	*1*
Benzo(a)pyrene-d12 (Surr)	*30*	*S1-*	*32 - 194*	*08/11/25 15:38*	*08/12/25 21:57*	*1*
1-Methylnaphthalene-d10	*59*		*45 - 130*	*08/11/25 15:38*	*08/12/25 21:57*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
1,2-Dichlorobenzene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
1,3-Dichlorobenzene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
1,4-Dichlorobenzene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
1-Methylnaphthalene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2,4,5-Trichlorophenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2,4,6-Trichlorophenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2,4-Dichlorophenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2,4-Dimethylphenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2,4-Dinitrophenol	ND		47	ug/L		08/07/25 08:55	08/13/25 20:20	1
2,4-Dinitrotoluene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2,6-Dichlorophenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2,6-Dinitrotoluene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2-Chloronaphthalene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2-Chlorophenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2-Methylnaphthalene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2-Methylphenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2-Nitroaniline	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
2-Nitrophenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
3,3'-Dichlorobenzidine	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
3/4-Methylphenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
3-Nitroaniline	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
4,6-Dinitro-2-methylphenol	ND		47	ug/L		08/07/25 08:55	08/13/25 20:20	1
4-Bromophenyl phenyl ether	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
4-Chloro-3-methylphenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
4-Chloroaniline	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
4-Chlorophenyl phenyl ether	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
4-Nitroaniline	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
4-Nitrophenol	ND	*-	9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Acenaphthene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Acenaphthylene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Acetophenone	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Alpha-Terpineol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Aniline	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Anthracene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Azobenzene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Benzidine	ND	*-	47	ug/L		08/07/25 08:55	08/13/25 20:20	1
Benzo[a]anthracene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Benzo[a]pyrene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Benzo[b]fluoranthene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Benzo[g,h,i]perylene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Benzo[k]fluoranthene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1

Client Sample ID: Well 14 120 Hr

Lab Sample ID: 380-164187-1

Date Collected: 08/04/25 09:00
Matrix: Water
Date Received: 08/05/25 10:30

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	ND		47	ug/L		08/07/25 08:55	08/13/25 20:20	1
Benzyl alcohol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Bis (2-chloroethoxy) methane	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
bis (2-chloroisopropyl) ether	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Bis(2-chloroethyl)ether	ND		24	ug/L		08/07/25 08:55	08/13/25 20:20	1
Bis(2-ethylhexyl) phthalate	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Butyl benzyl phthalate	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Carbazole	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Chrysene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Dibenz(a,h)anthracene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Dibenzofuran	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Diethyl phthalate	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Dimethyl phthalate	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Di-n-butyl phthalate	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Di-n-octyl phthalate	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Fluoranthene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Fluorene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Hexachloro-1,3-butadiene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Hexachlorobenzene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Hexachlorocyclopentadiene	ND		24	ug/L		08/07/25 08:55	08/13/25 20:20	1
Hexachloroethane	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Indeno[1,2,3-cd]pyrene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Isophorone	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Naphthalene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
n-Decane	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Nitrobenzene	ND		24	ug/L		08/07/25 08:55	08/13/25 20:20	1
N-Nitrosodimethylamine	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
N-Nitrosodi-n-propylamine	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
N-Nitrosodiphenylamine	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
n-Octadecane	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Pentachlorophenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Phenanthrene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Phenol	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Pyrene	ND		9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1
Pyridine	ND	*1	9.4	ug/L		08/07/25 08:55	08/13/25 20:20	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*08/07/25 08:55*	*08/13/25 20:20*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*08/07/25 08:55*	*08/13/25 20:20*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*08/07/25 08:55*	*08/13/25 20:20*	*1*
2,3,7,8-TCDD TIC	*ND*		*ug/L*			*1746-01-6*	*08/07/25 08:55*	*08/13/25 20:20*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*08/07/25 08:55*	*08/13/25 20:20*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*08/07/25 08:55*	*08/13/25 20:20*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*73*		*33 - 139*	*08/07/25 08:55*	*08/13/25 20:20*	*1*
2-Fluorobiphenyl (Surr)	*69*		*33 - 126*	*08/07/25 08:55*	*08/13/25 20:20*	*1*
2-Fluorophenol (Surr)	*44*		*12 - 120*	*08/07/25 08:55*	*08/13/25 20:20*	*1*
Nitrobenzene-d5 (Surr)	*61*		*36 - 120*	*08/07/25 08:55*	*08/13/25 20:20*	*1*
Phenol-d6 (Surr)	*48*		*10 - 120*	*08/07/25 08:55*	*08/13/25 20:20*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Client Sample ID: Well 14 120 Hr

Date Collected: 08/04/25 09:00
Date Received: 08/05/25 10:30

Lab Sample ID: 380-164187-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*88*		*47 - 131*	*08/07/25 08:55*	*08/13/25 20:20*	*1*

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			08/17/25 18:17	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			08/17/25 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*20 - 144*		*08/17/25 18:17*	*1*

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0095	ug/L		08/06/25 15:29	08/12/25 08:59	1
4,4'-DDE	ND		0.0047	ug/L		08/06/25 15:29	08/12/25 08:59	1
4,4'-DDT	ND		0.0047	ug/L		08/06/25 15:29	08/12/25 08:59	1
Aldrin	ND		0.0047	ug/L		08/06/25 15:29	08/12/25 08:59	1
alpha-BHC	ND		0.0019	ug/L		08/06/25 15:29	08/12/25 08:59	1
alpha-Chlordane	ND		0.047	ug/L		08/06/25 15:29	08/12/25 08:59	1
beta-BHC	ND		0.0071	ug/L		08/06/25 15:29	08/12/25 08:59	1
Chlordane	ND		0.047	ug/L		08/06/25 15:29	08/12/25 08:59	1
delta-BHC	ND		0.0047	ug/L		08/06/25 15:29	08/12/25 08:59	1
Dieldrin	ND		0.0047	ug/L		08/06/25 15:29	08/12/25 08:59	1
Endosulfan I	ND		0.0019	ug/L		08/06/25 15:29	08/12/25 08:59	1
Endosulfan II	ND		0.0095	ug/L		08/06/25 15:29	08/12/25 08:59	1
Endosulfan sulfate	ND		0.0047	ug/L		08/06/25 15:29	08/12/25 08:59	1
Endrin	ND		0.0047	ug/L		08/06/25 15:29	08/12/25 08:59	1
Endrin aldehyde	ND	*1	0.047	ug/L		08/06/25 15:29	08/12/25 08:59	1
Endrin ketone	ND		0.0047	ug/L		08/06/25 15:29	08/12/25 08:59	1
gamma-BHC (Lindane)	ND		0.0019	ug/L		08/06/25 15:29	08/12/25 08:59	1
gamma-Chlordane	ND		0.014	ug/L		08/06/25 15:29	08/12/25 08:59	1
Heptachlor	ND		0.0019	ug/L		08/06/25 15:29	08/12/25 08:59	1
Heptachlor epoxide	ND	*1	0.0095	ug/L		08/06/25 15:29	08/12/25 08:59	1
Methoxychlor	ND		0.0095	ug/L		08/06/25 15:29	08/12/25 08:59	1
Toxaphene	ND		0.095	ug/L		08/06/25 15:29	08/12/25 08:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*58*		*20 - 154*	*08/06/25 15:29*	*08/12/25 08:59*	*1*
Tetrachloro-m-xylene (Surr)	*62*		*20 - 139*	*08/06/25 15:29*	*08/12/25 08:59*	*1*

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.095	ug/L		08/06/25 15:29	08/09/25 10:44	1
Aroclor-1221	ND		0.095	ug/L		08/06/25 15:29	08/09/25 10:44	1
Aroclor-1232	ND		0.095	ug/L		08/06/25 15:29	08/09/25 10:44	1
Aroclor-1242	ND		0.095	ug/L		08/06/25 15:29	08/09/25 10:44	1
Aroclor-1248	ND		0.095	ug/L		08/06/25 15:29	08/09/25 10:44	1
Aroclor-1254	ND		0.095	ug/L		08/06/25 15:29	08/09/25 10:44	1
Aroclor-1260	ND		0.095	ug/L		08/06/25 15:29	08/09/25 10:44	1

Client Sample ID: Well 14 120 Hr

Lab Sample ID: 380-164187-1

Date Collected: 08/04/25 09:00
Matrix: Water
Date Received: 08/05/25 10:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*98*		*20 - 154*	*08/06/25 15:29*	*08/09/25 10:44*	*1*
Tetrachloro-m-xylene (Surr)	*74*		*20 - 139*	*08/06/25 15:29*	*08/09/25 10:44*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		08/11/25 23:40	08/12/25 11:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*94*		*46 - 136*	*08/11/25 23:40*	*08/12/25 11:16*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*97*		*46 - 136*	*08/11/25 23:40*	*08/12/25 11:16*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250	ug/L		08/10/25 11:39	08/25/25 08:04	1
Diesel Range Organics [C10-C28]	**60**		50	ug/L		08/10/25 11:39	08/25/25 08:04	1
C24-C44	ND		250	ug/L		08/10/25 11:39	08/25/25 08:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*100*		*53 - 151*	*08/10/25 11:39*	*08/25/25 08:04*	*1*
n-Octacosane (Surr)	*100*		*53 - 151*	*08/10/25 11:39*	*08/25/25 08:04*	*1*

Method: SW846 8015C - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13	mg/L		08/15/25 10:09	08/15/25 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*12*		*10 - 130*	*08/15/25 10:09*	*08/15/25 23:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**61**		4.0	mg/L			08/06/25 07:35	40
Fluoride	ND		4.0	mg/L			08/06/25 07:35	40
Sulfate	**2700**		40	mg/L			08/06/25 07:35	40

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19000**		500	mg/L			08/06/25 08:41	500

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**3.9**		0.50	ng/L			08/14/25 18:25	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		6.0	ug/L		09/03/25 16:31	09/04/25 08:04	1
Arsenic	**1.5**		0.70	ug/L		08/11/25 00:00	08/12/25 01:47	1
Barium	**36**		0.50	ug/L		08/11/25 00:00	08/12/25 01:47	1
Cadmium	ND		0.020	ug/L		08/11/25 00:00	08/12/25 01:47	1
Chromium	**1.1**		1.0	ug/L		08/20/25 16:39	08/22/25 00:21	1
Copper	ND		0.50	ug/L		08/11/25 00:00	08/12/25 01:47	1
Iron	**160**		6.0	ug/L		08/11/25 00:00	08/12/25 01:47	1
Lead	ND		0.050	ug/L		08/11/25 00:00	08/12/25 01:47	1

Client Sample ID: Well 14 120 Hr

Lab Sample ID: 380-164187-1

Date Collected: 08/04/25 09:00
Matrix: Water
Date Received: 08/05/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**110**		0.50	ug/L		08/11/25 00:00	08/12/25 16:07	10
Selenium	ND		0.70	ug/L		08/11/25 00:00	08/12/25 01:47	1
Silver	ND		1.0	ug/L		08/20/25 16:39	08/22/25 00:21	1
Vanadium	**5.2**		1.0	ug/L		08/11/25 00:00	08/12/25 01:47	1
Zinc	**41**		1.0	ug/L		08/20/25 16:39	08/22/25 00:21	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**420**		20	mg/L		08/07/25 16:03	08/11/25 12:27	10
Iron	ND		5.0	mg/L		08/07/25 16:03	08/11/25 12:27	10
Lithium	ND		0.50	mg/L		08/07/25 16:03	08/11/25 12:27	10
Magnesium	**1300**		5.0	mg/L		08/07/25 16:03	08/11/25 12:27	10
Potassium	**450**		20	mg/L		08/07/25 16:03	08/11/25 12:27	10
Sodium	**9700**		40	mg/L		08/07/25 16:03	08/11/25 15:20	20
Strontium	**8.9**		0.10	mg/L		08/07/25 16:03	08/11/25 12:27	10
SiO2, Silica	**9.7**		5.4	mg/L		08/07/25 16:03	08/11/25 12:27	10

Method: SW846 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		10	ug/L		08/07/25 08:52	08/08/25 15:27	10

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	**1.3**		0.94	mg/L		08/06/25 08:44	08/06/25 15:53	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.53**		0.20	mg/L		08/15/25 13:34	08/16/25 12:17	1
Chemical Oxygen Demand (EPA 410.4)	**48**		10	mg/L		08/10/25 08:18	08/10/25 11:18	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**110**		5.0	mg/L			08/17/25 18:17	1
Bicarbonate (as CaCO3) (SM 2320B)	**110**		5.0	mg/L			08/17/25 18:17	1
Carbonate (as CaCO3) (SM 2320B)	ND		5.0	mg/L			08/17/25 18:17	1
Hydroxide (as CaCO3) (SM 2320B)	ND		5.0	mg/L			08/17/25 18:17	1
Salinity (SM 2520B)	**34**		2.0	psu			08/11/25 14:18	1
Total Dissolved Solids (SM 2540C)	**37000**		330	mg/L			08/08/25 19:14	1
Carbon, Non-Purgable Organic (SM 5310C)	ND		1.0	mg/L			08/30/25 01:36	2

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	**289**	**G**	59.5	66.1	4.00	69.5	pCi/L	08/08/25 08:19	08/11/25 18:58	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.80**		0.344	0.380	1.00	0.160	pCi/L	08/08/25 08:06	09/02/25 21:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*30 - 110*	*08/08/25 08:06*	*09/02/25 21:19*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Client Sample ID: Well 14 120 Hr

Lab Sample ID: 380-164187-1

Date Collected: 08/04/25 09:00
Matrix: Water
Date Received: 08/05/25 10:30

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.681	U G	1.06	1.06	1.00	2.19	pCi/L	08/08/25 08:13	08/22/25 17:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*30 - 110*	*08/08/25 08:13*	*08/22/25 17:02*	*1*
Y Carrier	*72.9*		*30 - 110*	*08/08/25 08:13*	*08/22/25 17:02*	*1*

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	-1.09	U	2.50	2.50	3.00	2.83	pCi/L	08/12/25 08:17	08/20/25 14:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*50.0*		*30 - 110*	*08/12/25 08:17*	*08/20/25 14:42*	*1*
Y Carrier	*92.0*		*30 - 110*	*08/12/25 08:17*	*08/20/25 14:42*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.80	U	1.11	1.13	5.00	2.19	pCi/L		09/02/25 09:21	1

Method: SM7110C - Gross Alpha by Co-Precipitation

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	**10.8**		2.04	2.38	3.00	0.813	pCi/L	08/11/25 08:49	08/12/25 14:24	1

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
380-164187-1	Well 14 120 Hr	104	105	106	107
LCS 570-607611/1003	Lab Control Sample	105	102	104	102
LCSD 570-607611/4	Lab Control Sample Dup	107	101	100	99
MB 570-607611/7	Method Blank	100	102	102	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-164187-1	Well 14 120 Hr	73	69	44	61	48	88
LCS 570-608267/2-A	Lab Control Sample	83	83	53	82	38	92
LCSD 570-608267/3-A	Lab Control Sample Dup	82	84	62	88	42	94
MB 570-608267/1-A	Method Blank	75	83	60	89	36	91

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FLN10	BAPd12	MNPd10
Lab Sample ID	Client Sample ID	(30-187)	(32-194)	(45-130)
380-164187-1	Well 14 120 Hr	70	30 S1-	59
LCS 410-683841/2-A	Lab Control Sample	74	83	67
LCSD 410-683841/3-A	Lab Control Sample Dup	71	82	65
MB 410-683841/1-A	Method Blank	75	84	66

Surrogate Legend

FLN10 = Fluoranthene-d10 (Surr)
BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB1 (20-144)							
380-164187-1	Well 14 120 Hr	85							
LCS 570-612790/4	Lab Control Sample	93							
LCSD 570-612790/5	Lab Control Sample Dup	92							
MB 570-612790/6	Method Blank	85							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)						
380-164187-1	Well 14 120 Hr	58	62						
MB 570-607954/1-A	Method Blank	64	70						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX2 (20-139)						
LCS 570-607954/2-A	Lab Control Sample	98	81						
LCSD 570-607954/3-A	Lab Control Sample Dup	72	57						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)						
380-164187-1	Well 14 120 Hr	98	74						
LCS 570-607954/4-A	Lab Control Sample	92	87						
LCSD 570-607954/5-A	Lab Control Sample Dup	80	72						
MB 570-607954/1-A	Method Blank	89	83						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
380-164187-1	Well 14 120 Hr	94	97
LCS 410-684017/2-A	Lab Control Sample		101
LCSD 410-684017/3-A	Lab Control Sample Dup		101
MB 410-684017/1-A	Method Blank		101

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTCSN1	OTCSN1
Lab Sample ID	Client Sample ID	(53-151)	(53-151)
380-164187-1	Well 14 120 Hr	100	100
LCS 570-609530/4-A	Lab Control Sample	84	84
LCSD 570-609530/5-A	Lab Control Sample Dup	87	87
MB 570-609530/1-A	Method Blank	68	68

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015C - Glycols- Direct Injection (GC/FID)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		14BD1
Lab Sample ID	Client Sample ID	(10-130)
380-164187-1	Well 14 120 Hr	12
LCS 410-686080/2-A	Lab Control Sample	84
MB 410-686080/1-A	Method Blank	62

Surrogate Legend

14BD = 1,4-Butanediol

Tracer/Carrier Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba (30-110)							
380-164187-1	Well 14 120 Hr	92.3							
LCS 160-731119/2-A	Lab Control Sample	96.5							
MB 160-731119/1-A	Method Blank	97.3							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)						
380-164187-1	Well 14 120 Hr	92.3	72.9						
LCS 160-731120/2-A	Lab Control Sample	96.5	80.0						
MB 160-731120/1-A	Method Blank	97.3	78.5						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)						
380-164187-1	Well 14 120 Hr	50.0	92.0						
LCS 160-731517/2-A	Lab Control Sample	80.0	93.8						
MB 160-731517/1-A	Method Blank	88.6	96.1						

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-607611/7
Matrix: Water
Analysis Batch: 607611

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/06/25 08:47	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/06/25 08:47	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/06/25 08:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			08/06/25 08:47	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/06/25 08:47	1
1,1-Dichloroethane	ND		1.0		ug/L			08/06/25 08:47	1
1,1-Dichloroethene	ND		1.0		ug/L			08/06/25 08:47	1
1,1-Dichloropropene	ND		1.0		ug/L			08/06/25 08:47	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/06/25 08:47	1
1,2,3-Trichloropropane	ND		5.0		ug/L			08/06/25 08:47	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/06/25 08:47	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/06/25 08:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/06/25 08:47	1
1,2-Dibromoethane	ND		1.0		ug/L			08/06/25 08:47	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/06/25 08:47	1
1,2-Dichloroethane	ND		0.50		ug/L			08/06/25 08:47	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			08/06/25 08:47	1
1,2-Dichloropropane	ND		1.0		ug/L			08/06/25 08:47	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/06/25 08:47	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/06/25 08:47	1
1,3-Dichloropropane	ND		1.0		ug/L			08/06/25 08:47	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			08/06/25 08:47	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/06/25 08:47	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			08/06/25 08:47	1
2,2-Dichloropropane	ND		1.0		ug/L			08/06/25 08:47	1
2-Butanone	ND		10		ug/L			08/06/25 08:47	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			08/06/25 08:47	1
2-Chlorotoluene	ND		1.0		ug/L			08/06/25 08:47	1
2-Hexanone	ND		10		ug/L			08/06/25 08:47	1
4-Chlorotoluene	ND		1.0		ug/L			08/06/25 08:47	1
4-Methyl-2-pentanone	ND		10		ug/L			08/06/25 08:47	1
Acetone	ND		12		ug/L			08/06/25 08:47	1
Acrolein	ND		5.0		ug/L			08/06/25 08:47	1
Acrylonitrile	ND		2.0		ug/L			08/06/25 08:47	1
Benzene	ND		0.50		ug/L			08/06/25 08:47	1
Bromobenzene	ND		1.0		ug/L			08/06/25 08:47	1
Bromochloromethane	ND		1.0		ug/L			08/06/25 08:47	1
Bromodichloromethane	ND		1.0		ug/L			08/06/25 08:47	1
Bromoform	ND		1.0		ug/L			08/06/25 08:47	1
Bromomethane	ND		5.0		ug/L			08/06/25 08:47	1
Carbon disulfide	ND		10		ug/L			08/06/25 08:47	1
Carbon tetrachloride	ND		0.50		ug/L			08/06/25 08:47	1
Chlorobenzene	ND		1.0		ug/L			08/06/25 08:47	1
Chloroethane	ND		1.0		ug/L			08/06/25 08:47	1
Chloroform	ND		1.0		ug/L			08/06/25 08:47	1
Chloromethane	ND		1.0		ug/L			08/06/25 08:47	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/06/25 08:47	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/06/25 08:47	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-607611/7
Matrix: Water
Analysis Batch: 607611

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0		ug/L			08/06/25 08:47	1
Dibromomethane	ND		1.0		ug/L			08/06/25 08:47	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/06/25 08:47	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			08/06/25 08:47	1
Ethanol	ND		100		ug/L			08/06/25 08:47	1
Ethylbenzene	ND		1.0		ug/L			08/06/25 08:47	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			08/06/25 08:47	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/06/25 08:47	1
Isopropanol	ND		50		ug/L			08/06/25 08:47	1
Isopropylbenzene	ND		1.0		ug/L			08/06/25 08:47	1
m,p-Xylene	ND		1.0		ug/L			08/06/25 08:47	1
Methylene Chloride	ND		2.0		ug/L			08/06/25 08:47	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/06/25 08:47	1
Naphthalene	ND		10		ug/L			08/06/25 08:47	1
n-Butylbenzene	ND		1.0		ug/L			08/06/25 08:47	1
N-Propylbenzene	ND		1.0		ug/L			08/06/25 08:47	1
o-Xylene	ND		1.0		ug/L			08/06/25 08:47	1
p-Isopropyltoluene	ND		1.0		ug/L			08/06/25 08:47	1
sec-Butylbenzene	ND		1.0		ug/L			08/06/25 08:47	1
Styrene	ND		1.0		ug/L			08/06/25 08:47	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			08/06/25 08:47	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/06/25 08:47	1
tert-Butylbenzene	ND		1.0		ug/L			08/06/25 08:47	1
Tetrachloroethene	ND		1.0		ug/L			08/06/25 08:47	1
Tetrahydrofuran	ND		10		ug/L			08/06/25 08:47	1
Toluene	ND		1.0		ug/L			08/06/25 08:47	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/06/25 08:47	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/06/25 08:47	1
Trichloroethene	ND		1.0		ug/L			08/06/25 08:47	1
Trichlorofluoromethane	ND		5.0		ug/L			08/06/25 08:47	1
Trihalomethanes, Total	ND		1.0		ug/L			08/06/25 08:47	1
Vinyl acetate	ND		10		ug/L			08/06/25 08:47	1
Vinyl chloride	ND		0.50		ug/L			08/06/25 08:47	1
Xylenes, Total	ND		1.0		ug/L			08/06/25 08:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*60 - 140*		*08/06/25 08:47*	*1*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*08/06/25 08:47*	*1*
Dibromofluoromethane	*102*		*60 - 140*		*08/06/25 08:47*	*1*
Toluene-d8 (Surr)	*104*		*60 - 140*		*08/06/25 08:47*	*1*

Lab Sample ID: LCS 570-607611/1003
Matrix: Water
Analysis Batch: 607611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			20.0	19.6		ug/L		98	60 - 140		
1,1,1-Trichloroethane			20.0	20.5		ug/L		103	70 - 130		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-607611/1003
Matrix: Water
Analysis Batch: 607611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2,2-Tetrachloroethane	20.0	17.5		ug/L		88	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.6		ug/L		103	60 - 140
1,1,2-Trichloroethane	20.0	19.0		ug/L		95	70 - 130
1,1-Dichloroethane	20.0	20.0		ug/L		100	70 - 130
1,1-Dichloroethene	20.0	19.7		ug/L		99	50 - 150
1,1-Dichloropropene	20.0	19.5		ug/L		97	60 - 140
1,2,3-Trichlorobenzene	20.0	19.5		ug/L		97	60 - 140
1,2,3-Trichloropropane	20.0	18.6		ug/L		93	60 - 140
1,2,4-Trichlorobenzene	20.0	18.5		ug/L		92	60 - 140
1,2,4-Trimethylbenzene	20.0	18.5		ug/L		93	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	18.0		ug/L		90	60 - 140
1,2-Dibromoethane	20.0	19.8		ug/L		99	60 - 140
1,2-Dichlorobenzene	20.0	18.7		ug/L		93	65 - 135
1,2-Dichloroethane	20.0	20.6		ug/L		103	70 - 130
1,2-Dichloropropane	20.0	20.1		ug/L		100	35 - 165
1,3,5-Trimethylbenzene	20.0	19.3		ug/L		97	60 - 140
1,3-Dichlorobenzene	20.0	19.0		ug/L		95	70 - 130
1,3-Dichloropropane	20.0	19.0		ug/L		95	60 - 140
1,4-Dichlorobenzene	20.0	18.9		ug/L		94	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	19.9		ug/L		100	60 - 140
2,2-Dichloropropane	20.0	20.6		ug/L		103	60 - 140
2-Butanone	20.0	19.6		ug/L		98	60 - 140
2-Chloroethyl vinyl ether	20.0	17.0		ug/L		85	1 - 225
2-Chlorotoluene	20.0	20.4		ug/L		102	60 - 140
2-Hexanone	20.0	18.3		ug/L		91	60 - 140
4-Chlorotoluene	20.0	19.7		ug/L		98	60 - 140
4-Methyl-2-pentanone	20.0	19.0		ug/L		95	60 - 140
Acetone	20.0	17.4		ug/L		87	60 - 140
Acrolein	40.0	44.1		ug/L		110	60 - 140
Acrylonitrile	20.0	19.4		ug/L		97	60 - 140
Benzene	20.0	20.1		ug/L		100	65 - 135
Bromobenzene	20.0	18.8		ug/L		94	60 - 140
Bromochloromethane	20.0	20.3		ug/L		102	60 - 140
Bromodichloromethane	20.0	20.6		ug/L		103	65 - 135
Bromoform	20.0	17.3		ug/L		87	70 - 130
Bromomethane	20.0	16.3		ug/L		82	15 - 185
Carbon disulfide	20.0	19.9		ug/L		99	60 - 140
Carbon tetrachloride	20.0	22.9		ug/L		115	70 - 130
Chlorobenzene	20.0	19.9		ug/L		100	65 - 135
Chloroethane	20.0	18.2		ug/L		91	40 - 160
Chloroform	20.0	20.2		ug/L		101	70 - 135
Chloromethane	20.0	15.5		ug/L		77	1 - 205
cis-1,2-Dichloroethene	20.0	19.9		ug/L		99	60 - 140
cis-1,3-Dichloropropene	20.0	19.5		ug/L		97	25 - 175
Dibromochloromethane	20.0	20.0		ug/L		100	70 - 135
Dibromomethane	20.0	20.8		ug/L		104	60 - 140
Dichlorodifluoromethane	20.0	18.5		ug/L		93	60 - 140
Di-isopropyl ether (DIPE)	20.0	19.2		ug/L		96	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-607611/1003
Matrix: Water
Analysis Batch: 607611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethanol	200	193		ug/L		97	60 - 140
Ethylbenzene	20.0	19.5		ug/L		98	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	18.3		ug/L		91	60 - 140
Hexachloro-1,3-butadiene	20.0	18.6		ug/L		93	60 - 140
Isopropanol	100	90.9		ug/L		91	60 - 140
Isopropylbenzene	20.0	20.0		ug/L		100	60 - 140
m,p-Xylene	40.0	42.3		ug/L		106	60 - 140
Methylene Chloride	20.0	19.1		ug/L		96	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	19.4		ug/L		97	60 - 140
Naphthalene	20.0	16.7		ug/L		83	60 - 140
n-Butylbenzene	20.0	17.8		ug/L		89	60 - 140
N-Propylbenzene	20.0	20.5		ug/L		102	60 - 140
o-Xylene	20.0	19.7		ug/L		98	60 - 140
p-Isopropyltoluene	20.0	18.9		ug/L		94	60 - 140
sec-Butylbenzene	20.0	19.4		ug/L		97	60 - 140
Styrene	20.0	21.1		ug/L		106	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	18.7		ug/L		93	60 - 140
tert-Butyl alcohol (TBA)	100	97.7		ug/L		98	60 - 140
tert-Butylbenzene	20.0	19.8		ug/L		99	60 - 140
Tetrachloroethene	20.0	18.9		ug/L		95	70 - 130
Tetrahydrofuran	20.0	19.1		ug/L		95	60 - 140
Toluene	20.0	20.0		ug/L		100	70 - 130
trans-1,2-Dichloroethene	20.0	20.4		ug/L		102	70 - 130
trans-1,3-Dichloropropene	20.0	19.6		ug/L		98	50 - 150
Trichloroethene	20.0	19.8		ug/L		99	65 - 135
Trichlorofluoromethane	20.0	19.4		ug/L		97	50 - 150
Vinyl acetate	20.0	18.6		ug/L		93	60 - 140
Vinyl chloride	20.0	17.3		ug/L		86	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*60 - 140*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*
Dibromofluoromethane	*104*		*60 - 140*
Toluene-d8 (Surr)	*102*		*60 - 140*

Lab Sample ID: LCSD 570-607611/4
Matrix: Water
Analysis Batch: 607611

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	18.9		ug/L		95	60 - 140	3	30
1,1,1-Trichloroethane	20.0	19.9		ug/L		99	70 - 130	3	36
1,1,2,2-Tetrachloroethane	20.0	16.8		ug/L		84	60 - 140	4	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	19.8		ug/L		99	60 - 140	4	30
1,1,2-Trichloroethane	20.0	17.4		ug/L		87	70 - 130	9	45
1,1-Dichloroethane	20.0	19.6		ug/L		98	70 - 130	2	40
1,1-Dichloroethene	20.0	18.4		ug/L		92	50 - 150	7	32
1,1-Dichloropropene	20.0	19.0		ug/L		95	60 - 140	3	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-607611/4
Matrix: Water
Analysis Batch: 607611

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,3-Trichlorobenzene	20.0	20.0		ug/L		100	60 - 140	3	30
1,2,3-Trichloropropane	20.0	17.5		ug/L		87	60 - 140	6	30
1,2,4-Trichlorobenzene	20.0	18.3		ug/L		91	60 - 140	1	30
1,2,4-Trimethylbenzene	20.0	18.1		ug/L		91	60 - 140	2	30
1,2-Dibromo-3-Chloropropane	20.0	17.5		ug/L		88	60 - 140	3	30
1,2-Dibromoethane	20.0	20.1		ug/L		101	60 - 140	1	30
1,2-Dichlorobenzene	20.0	18.9		ug/L		95	65 - 135	1	57
1,2-Dichloroethane	20.0	20.4		ug/L		102	70 - 130	1	49
1,2-Dichloropropane	20.0	18.3		ug/L		92	35 - 165	9	55
1,3,5-Trimethylbenzene	20.0	18.4		ug/L		92	60 - 140	5	30
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	70 - 130	4	43
1,3-Dichloropropane	20.0	17.3		ug/L		87	60 - 140	9	30
1,4-Dichlorobenzene	20.0	18.4		ug/L		92	65 - 135	3	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	19.0		ug/L		95	60 - 140	5	30
2,2-Dichloropropane	20.0	20.3		ug/L		101	60 - 140	1	30
2-Butanone	20.0	17.6		ug/L		88	60 - 140	11	30
2-Chloroethyl vinyl ether	20.0	16.0		ug/L		80	1 - 225	6	71
2-Chlorotoluene	20.0	19.2		ug/L		96	60 - 140	6	30
2-Hexanone	20.0	18.8		ug/L		94	60 - 140	3	30
4-Chlorotoluene	20.0	19.3		ug/L		96	60 - 140	2	30
4-Methyl-2-pentanone	20.0	18.7		ug/L		93	60 - 140	2	30
Acetone	20.0	20.1		ug/L		100	60 - 140	14	30
Acrolein	40.0	40.7		ug/L		102	60 - 140	8	60
Acrylonitrile	20.0	19.2		ug/L		96	60 - 140	1	60
Benzene	20.0	19.1		ug/L		95	65 - 135	5	61
Bromobenzene	20.0	18.6		ug/L		93	60 - 140	1	30
Bromochloromethane	20.0	20.7		ug/L		104	60 - 140	2	30
Bromodichloromethane	20.0	19.9		ug/L		99	65 - 135	4	56
Bromoform	20.0	17.9		ug/L		89	70 - 130	3	42
Bromomethane	20.0	16.3		ug/L		82	15 - 185	0	61
Carbon disulfide	20.0	18.1		ug/L		91	60 - 140	9	30
Carbon tetrachloride	20.0	21.5		ug/L		107	70 - 130	7	41
Chlorobenzene	20.0	18.9		ug/L		94	65 - 135	5	53
Chloroethane	20.0	16.9		ug/L		85	40 - 160	7	78
Chloroform	20.0	19.6		ug/L		98	70 - 135	3	30
Chloromethane	20.0	16.4		ug/L		82	1 - 205	6	60
cis-1,2-Dichloroethene	20.0	19.5		ug/L		97	60 - 140	2	30
cis-1,3-Dichloropropene	20.0	18.4		ug/L		92	25 - 175	6	58
Dibromochloromethane	20.0	17.9		ug/L		90	70 - 135	11	50
Dibromomethane	20.0	19.1		ug/L		95	60 - 140	9	30
Dichlorodifluoromethane	20.0	17.6		ug/L		88	60 - 140	5	30
Di-isopropyl ether (DIPE)	20.0	18.8		ug/L		94	60 - 140	2	30
Ethanol	200	241		ug/L		121	60 - 140	22	30
Ethylbenzene	20.0	18.9		ug/L		94	60 - 140	3	63
Ethyl-t-butyl ether (ETBE)	20.0	18.3		ug/L		91	60 - 140	0	30
Hexachloro-1,3-butadiene	20.0	19.1		ug/L		95	60 - 140	3	30
Isopropanol	100	87.4		ug/L		87	60 - 140	4	30
Isopropylbenzene	20.0	19.4		ug/L		97	60 - 140	3	30
m,p-Xylene	40.0	40.3		ug/L		101	60 - 140	5	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-607611/4
Matrix: Water
Analysis Batch: 607611

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methylene Chloride	20.0	17.8		ug/L		89	60 - 140	7	28
Methyl-t-Butyl Ether (MTBE)	20.0	19.8		ug/L		99	60 - 140	2	30
Naphthalene	20.0	17.0		ug/L		85	60 - 140	2	30
n-Butylbenzene	20.0	17.9		ug/L		90	60 - 140	0	30
N-Propylbenzene	20.0	19.0		ug/L		95	60 - 140	7	30
o-Xylene	20.0	18.8		ug/L		94	60 - 140	5	30
p-Isopropyltoluene	20.0	18.5		ug/L		92	60 - 140	2	30
sec-Butylbenzene	20.0	19.2		ug/L		96	60 - 140	1	30
Styrene	20.0	20.3		ug/L		102	60 - 140	4	30
Tert-amyl-methyl ether (TAME)	20.0	18.4		ug/L		92	60 - 140	2	30
tert-Butyl alcohol (TBA)	100	97.0		ug/L		97	60 - 140	1	30
tert-Butylbenzene	20.0	19.1		ug/L		95	60 - 140	4	30
Tetrachloroethene	20.0	17.7		ug/L		88	70 - 130	7	39
Tetrahydrofuran	20.0	19.7		ug/L		99	60 - 140	3	30
Toluene	20.0	18.5		ug/L		93	70 - 130	7	41
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	70 - 130	2	45
trans-1,3-Dichloropropene	20.0	16.8		ug/L		84	50 - 150	15	86
Trichloroethene	20.0	17.9		ug/L		89	65 - 135	10	48
Trichlorofluoromethane	20.0	18.4		ug/L		92	50 - 150	5	84
Vinyl acetate	20.0	18.5		ug/L		92	60 - 140	0	30
Vinyl chloride	20.0	16.7		ug/L		84	5 - 195	3	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*60 - 140*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*
Dibromofluoromethane	*100*		*60 - 140*
Toluene-d8 (Surr)	*99*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-608267/1-A
Matrix: Water
Analysis Batch: 610322

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608267

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
1,2-Dichlorobenzene	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
1,3-Dichlorobenzene	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
1,4-Dichlorobenzene	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
1-Methylnaphthalene	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
2,4,5-Trichlorophenol	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
2,4,6-Trichlorophenol	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
2,4-Dichlorophenol	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
2,4-Dimethylphenol	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
2,4-Dinitrophenol	ND		50	ug/L		08/07/25 08:55	08/12/25 09:57	1
2,4-Dinitrotoluene	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
2,6-Dichlorophenol	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-608267/1-A
Matrix: Water
Analysis Batch: 610322

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608267

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
2-Chloronaphthalene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
2-Chlorophenol	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
2-Methylnaphthalene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
2-Methylphenol	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
2-Nitroaniline	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
2-Nitrophenol	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
3,3'-Dichlorobenzidine	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
3/4-Methylphenol	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
3-Nitroaniline	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		08/07/25 08:55	08/12/25 09:57	1
4-Bromophenyl phenyl ether	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
4-Chloro-3-methylphenol	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
4-Chloroaniline	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
4-Nitroaniline	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
4-Nitrophenol	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Acenaphthene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Acenaphthylene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Acetophenone	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Alpha-Terpineol	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Aniline	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Anthracene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Azobenzene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Benzidine	ND		50		ug/L		08/07/25 08:55	08/12/25 09:57	1
Benzo[a]anthracene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Benzo[a]pyrene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Benzo[b]fluoranthene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Benzo[k]fluoranthene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Benzoic acid	ND		50		ug/L		08/07/25 08:55	08/12/25 09:57	1
Benzyl alcohol	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Bis(2-chloroethyl)ether	ND		25		ug/L		08/07/25 08:55	08/12/25 09:57	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Butyl benzyl phthalate	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Carbazole	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Chrysene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Dibenz(a,h)anthracene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Dibenzofuran	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Diethyl phthalate	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Dimethyl phthalate	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Di-n-butyl phthalate	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Di-n-octyl phthalate	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Fluoranthene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Fluorene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Hexachloro-1,3-butadiene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1
Hexachlorobenzene	ND		10		ug/L		08/07/25 08:55	08/12/25 09:57	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-608267/1-A
Matrix: Water
Analysis Batch: 610322

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608267

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		25	ug/L		08/07/25 08:55	08/12/25 09:57	1
Hexachloroethane	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
Indeno[1,2,3-cd]pyrene	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
Isophorone	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
Naphthalene	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
n-Decane	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
Nitrobenzene	ND		25	ug/L		08/07/25 08:55	08/12/25 09:57	1
N-Nitrosodimethylamine	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
N-Nitrosodiphenylamine	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
n-Octadecane	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
Pentachlorophenol	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
Phenanthrene	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
Phenol	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
Pyrene	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1
Pyridine	ND		10	ug/L		08/07/25 08:55	08/12/25 09:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*75*		*33 - 139*	*08/07/25 08:55*	*08/12/25 09:57*	*1*
2-Fluorobiphenyl (Surr)	*83*		*33 - 126*	*08/07/25 08:55*	*08/12/25 09:57*	*1*
2-Fluorophenol (Surr)	*60*		*12 - 120*	*08/07/25 08:55*	*08/12/25 09:57*	*1*
Nitrobenzene-d5 (Surr)	*89*		*36 - 120*	*08/07/25 08:55*	*08/12/25 09:57*	*1*
Phenol-d6 (Surr)	*36*		*10 - 120*	*08/07/25 08:55*	*08/12/25 09:57*	*1*
p-Terphenyl-d14 (Surr)	*91*		*47 - 131*	*08/07/25 08:55*	*08/12/25 09:57*	*1*

Lab Sample ID: LCS 570-608267/2-A
Matrix: Water
Analysis Batch: 610322

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608267

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	100	80.0		ug/L		80	57 - 130
1,2-Dichlorobenzene	100	72.5		ug/L		73	50 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	92.8		ug/L		93	57 - 120
1,3-Dichlorobenzene	100	67.4		ug/L		67	46 - 120
1,4-Dichlorobenzene	100	69.5		ug/L		70	47 - 120
1-Methylnaphthalene	100	91.8		ug/L		92	63 - 120
2,4,5-Trichlorophenol	100	91.1		ug/L		91	62 - 120
2,4,6-Trichlorophenol	100	95.4		ug/L		95	52 - 129
2,4-Dichlorophenol	100	86.7		ug/L		87	53 - 122
2,4-Dimethylphenol	100	57.5		ug/L		58	42 - 120
2,4-Dinitrophenol	100	95.6		ug/L		96	1 - 173
2,4-Dinitrotoluene	100	93.0		ug/L		93	48 - 127
2,6-Dichlorophenol	100	90.9		ug/L		91	64 - 120
2,6-Dinitrotoluene	100	98.3		ug/L		98	68 - 137
2-Chloronaphthalene	100	90.8		ug/L		91	65 - 120
2-Chlorophenol	100	84.7		ug/L		85	36 - 120
2-Methylnaphthalene	100	88.9		ug/L		89	60 - 120
2-Methylphenol	100	81.6		ug/L		82	55 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-608267/2-A
Matrix: Water
Analysis Batch: 610322

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608267

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitroaniline	100	100		ug/L		100	53 - 120
2-Nitrophenol	100	87.2		ug/L		87	45 - 167
3,3'-Dichlorobenzidine	100	73.8		ug/L		74	8 - 213
3/4-Methylphenol	200	144		ug/L		72	41 - 120
3-Nitroaniline	100	93.4		ug/L		93	62 - 120
4,6-Dinitro-2-methylphenol	100	86.3		ug/L		86	53 - 130
4-Bromophenyl phenyl ether	100	97.5		ug/L		98	65 - 120
4-Chloro-3-methylphenol	100	92.8		ug/L		93	41 - 128
4-Chloroaniline	100	79.4		ug/L		79	53 - 120
4-Chlorophenyl phenyl ether	100	94.7		ug/L		95	38 - 145
4-Nitroaniline	100	98.2		ug/L		98	61 - 120
4-Nitrophenol	100	ND	*-	ug/L		0	13 - 129
Acenaphthene	100	93.2		ug/L		93	60 - 132
Acenaphthylene	100	95.7		ug/L		96	54 - 126
Acetophenone	100	90.7		ug/L		91	45 - 120
Alpha-Terpineol	100	91.4		ug/L		91	60 - 140
Aniline	100	70.4		ug/L		70	50 - 120
Anthracene	100	96.8		ug/L		97	43 - 120
Azobenzene	100	92.8		ug/L		93	57 - 120
Benzidine	100	ND	*-	ug/L		0	20 - 143
Benzo[a]anthracene	100	98.0		ug/L		98	42 - 133
Benzo[a]pyrene	100	89.7		ug/L		90	32 - 148
Benzo[b]fluoranthene	100	91.0		ug/L		91	42 - 140
Benzo[g,h,i]perylene	100	92.8		ug/L		93	1 - 195
Benzo[k]fluoranthene	100	97.0		ug/L		97	25 - 146
Benzoic acid	100	41.0	J	ug/L		41	20 - 120
Benzyl alcohol	100	73.4		ug/L		73	47 - 120
Bis (2-chloroethoxy) methane	100	89.2		ug/L		89	49 - 165
bis (2-chloroisopropyl) ether	100	86.6		ug/L		87	63 - 139
Bis(2-chloroethyl)ether	100	85.7		ug/L		86	43 - 126
Bis(2-ethylhexyl) phthalate	100	94.6		ug/L		95	29 - 137
Butyl benzyl phthalate	100	95.4		ug/L		95	1 - 140
Chrysene	100	95.5		ug/L		96	44 - 140
Dibenz(a,h)anthracene	100	94.2		ug/L		94	1 - 200
Dibenzofuran	100	94.7		ug/L		95	61 - 120
Diethyl phthalate	100	101		ug/L		101	1 - 120
Dimethyl phthalate	100	96.4		ug/L		96	1 - 120
Di-n-butyl phthalate	100	105		ug/L		105	8 - 120
Di-n-octyl phthalate	100	93.1		ug/L		93	19 - 132
Fluoranthene	100	102		ug/L		102	43 - 121
Fluorene	100	96.6		ug/L		97	70 - 120
Hexachloro-1,3-butadiene	100	73.1		ug/L		73	38 - 120
Hexachlorobenzene	100	96.4		ug/L		96	8 - 142
Hexachlorocyclopentadiene	100	74.4		ug/L		74	46 - 135
Hexachloroethane	100	66.3		ug/L		66	55 - 120
Indeno[1,2,3-cd]pyrene	100	83.3		ug/L		83	1 - 151
Isophorone	100	92.3		ug/L		92	47 - 180
Naphthalene	100	80.9		ug/L		81	36 - 120
Nitrobenzene	100	87.0		ug/L		87	54 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-608267/2-A
Matrix: Water
Analysis Batch: 610322

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608267

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-Nitrosodimethylamine	100	54.5		ug/L		55	38 - 120
N-Nitrosodi-n-propylamine	100	94.0		ug/L		94	14 - 198
N-Nitrosodiphenylamine	100	115		ug/L		115	79 - 127
Pentachlorophenol	100	85.1		ug/L		85	38 - 152
Phenanthrene	100	96.9		ug/L		97	65 - 120
Phenol	100	44.5		ug/L		44	17 - 120
Pyrene	100	97.3		ug/L		97	70 - 120
Pyridine	100	49.9		ug/L		50	27 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*83*		*33 - 139*
2-Fluorobiphenyl (Surr)	*83*		*33 - 126*
2-Fluorophenol (Surr)	*53*		*12 - 120*
Nitrobenzene-d5 (Surr)	*82*		*36 - 120*
Phenol-d6 (Surr)	*38*		*10 - 120*
p-Terphenyl-d14 (Surr)	*92*		*47 - 131*

Lab Sample ID: LCSD 570-608267/3-A
Matrix: Water
Analysis Batch: 610322

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 608267

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	86.0		ug/L		86	57 - 130	7	30
1,2-Dichlorobenzene	100	82.9		ug/L		83	50 - 120	13	20
1,2-Diphenylhydrazine(as Azobenzene)	100	95.0		ug/L		95	57 - 120	2	20
1,3-Dichlorobenzene	100	81.5		ug/L		81	46 - 120	19	20
1,4-Dichlorobenzene	100	82.0		ug/L		82	47 - 120	16	20
1-Methylnaphthalene	100	92.6		ug/L		93	63 - 120	1	20
2,4,5-Trichlorophenol	100	93.3		ug/L		93	62 - 120	2	20
2,4,6-Trichlorophenol	100	99.7		ug/L		100	52 - 129	4	35
2,4-Dichlorophenol	100	90.4		ug/L		90	53 - 122	4	30
2,4-Dimethylphenol	100	80.1		ug/L		80	42 - 120	33	35
2,4-Dinitrophenol	100	102		ug/L		102	1 - 173	6	79
2,4-Dinitrotoluene	100	96.1		ug/L		96	48 - 127	3	25
2,6-Dichlorophenol	100	96.3		ug/L		96	64 - 120	6	20
2,6-Dinitrotoluene	100	102		ug/L		102	68 - 137	4	29
2-Chloronaphthalene	100	92.4		ug/L		92	65 - 120	2	15
2-Chlorophenol	100	96.3		ug/L		96	36 - 120	13	37
2-Methylnaphthalene	100	91.0		ug/L		91	60 - 120	2	20
2-Methylphenol	100	92.4		ug/L		92	55 - 120	12	20
2-Nitroaniline	100	96.9		ug/L		97	53 - 120	3	20
2-Nitrophenol	100	89.6		ug/L		90	45 - 167	3	33
3,3'-Dichlorobenzidine	100	80.5		ug/L		80	8 - 213	9	65
3/4-Methylphenol	200	160		ug/L		80	41 - 120	10	20
3-Nitroaniline	100	96.3		ug/L		96	62 - 120	3	20
4,6-Dinitro-2-methylphenol	100	90.9		ug/L		91	53 - 130	5	122
4-Bromophenyl phenyl ether	100	98.3		ug/L		98	65 - 120	1	26
4-Chloro-3-methylphenol	100	94.6		ug/L		95	41 - 128	2	44

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-608267/3-A
Matrix: Water
Analysis Batch: 610322

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 608267

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Chloroaniline	100	81.4		ug/L		81	53 - 120	3	20
4-Chlorophenyl phenyl ether	100	95.6		ug/L		96	38 - 145	1	36
4-Nitroaniline	100	101		ug/L		101	61 - 120	3	20
4-Nitrophenol	100	ND	*-	ug/L		0	13 - 129	NC	79
Acenaphthene	100	94.8		ug/L		95	60 - 132	2	29
Acenaphthylene	100	99.0		ug/L		99	54 - 126	3	45
Acetophenone	100	97.5		ug/L		97	45 - 120	7	20
Alpha-Terpineol	100	96.7		ug/L		97	60 - 140	6	30
Aniline	100	82.2		ug/L		82	50 - 120	15	20
Anthracene	100	97.1		ug/L		97	43 - 120	0	40
Azobenzene	100	95.0		ug/L		95	57 - 120	2	20
Benzidine	100	ND	*-	ug/L		0	20 - 143	NC	30
Benzo[a]anthracene	100	102		ug/L		102	42 - 133	4	32
Benzo[a]pyrene	100	92.2		ug/L		92	32 - 148	3	43
Benzo[b]fluoranthene	100	92.8		ug/L		93	42 - 140	2	43
Benzo[g,h,i]perylene	100	95.1		ug/L		95	1 - 195	2	61
Benzo[k]fluoranthene	100	102		ug/L		102	25 - 146	5	38
Benzoic acid	100	35.3	J	ug/L		35	20 - 120	15	20
Benzyl alcohol	100	84.4		ug/L		84	47 - 120	14	20
Bis (2-chloroethoxy) methane	100	91.1		ug/L		91	49 - 165	2	32
bis (2-chloroisopropyl) ether	100	96.4		ug/L		96	63 - 139	11	46
Bis(2-chloroethyl)ether	100	95.9		ug/L		96	43 - 126	11	65
Bis(2-ethylhexyl) phthalate	100	97.9		ug/L		98	29 - 137	3	50
Butyl benzyl phthalate	100	98.2		ug/L		98	1 - 140	3	36
Chrysene	100	98.6		ug/L		99	44 - 140	3	53
Dibenz(a,h)anthracene	100	95.4		ug/L		95	1 - 200	1	75
Dibenzofuran	100	96.3		ug/L		96	61 - 120	2	20
Diethyl phthalate	100	103		ug/L		103	1 - 120	3	60
Dimethyl phthalate	100	99.6		ug/L		100	1 - 120	3	110
Di-n-butyl phthalate	100	106		ug/L		106	8 - 120	0	28
Di-n-octyl phthalate	100	96.0		ug/L		96	19 - 132	3	42
Fluoranthene	100	102		ug/L		102	43 - 121	0	40
Fluorene	100	97.9		ug/L		98	70 - 120	1	23
Hexachloro-1,3-butadiene	100	80.3		ug/L		80	38 - 120	9	38
Hexachlorobenzene	100	94.9		ug/L		95	8 - 142	2	33
Hexachlorocyclopentadiene	100	80.4		ug/L		80	46 - 135	8	20
Hexachloroethane	100	78.6		ug/L		79	55 - 120	17	32
Indeno[1,2,3-cd]pyrene	100	88.2		ug/L		88	1 - 151	6	60
Isophorone	100	95.2		ug/L		95	47 - 180	3	56
Naphthalene	100	85.6		ug/L		86	36 - 120	6	39
Nitrobenzene	100	90.0		ug/L		90	54 - 158	3	37
N-Nitrosodimethylamine	100	63.9		ug/L		64	38 - 120	16	20
N-Nitrosodi-n-propylamine	100	98.3		ug/L		98	14 - 198	4	52
N-Nitrosodiphenylamine	100	115		ug/L		115	79 - 127	0	20
Pentachlorophenol	100	85.4		ug/L		85	38 - 152	0	52
Phenanthrene	100	97.9		ug/L		98	65 - 120	1	24
Phenol	100	49.0		ug/L		49	17 - 120	10	39
Pyrene	100	101		ug/L		101	70 - 120	4	30
Pyridine	100	61.4	*1	ug/L		61	27 - 120	21	20

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	82		33 - 139
2-Fluorobiphenyl (Surr)	84		33 - 126
2-Fluorophenol (Surr)	62		12 - 120
Nitrobenzene-d5 (Surr)	88		36 - 120
Phenol-d6 (Surr)	42		10 - 120
p-Terphenyl-d14 (Surr)	94		47 - 131

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 410-683841/1-A
Matrix: Water
Analysis Batch: 684429

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683841

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		08/11/25 15:38	08/12/25 21:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Fluoranthene-d10 (Surr)	75		30 - 187	08/11/25 15:38	08/12/25 21:36	1
Benzo(a)pyrene-d12 (Surr)	84		32 - 194	08/11/25 15:38	08/12/25 21:36	1
1-Methylnaphthalene-d10	66		45 - 130	08/11/25 15:38	08/12/25 21:36	1

Lab Sample ID: LCS 410-683841/2-A
Matrix: Water
Analysis Batch: 684429

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683841

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			1.00	0.339		ug/L		34	18 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Fluoranthene-d10 (Surr)	74		30 - 187
Benzo(a)pyrene-d12 (Surr)	83		32 - 194
1-Methylnaphthalene-d10	67		45 - 130

Lab Sample ID: LCSD 410-683841/3-A
Matrix: Water
Analysis Batch: 684429

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 683841

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			1.00	0.336		ug/L		34	18 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Fluoranthene-d10 (Surr)	71		30 - 187
Benzo(a)pyrene-d12 (Surr)	82		32 - 194
1-Methylnaphthalene-d10	65		45 - 130

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-612790/6
Matrix: Water
Analysis Batch: 612790

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50		ug/L			08/17/25 15:51	1
Gasoline Range Organics (C4-C12)	ND		50		ug/L			08/17/25 15:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*20 - 144*		*08/17/25 15:51*	*1*

Lab Sample ID: LCS 570-612790/4
Matrix: Water
Analysis Batch: 612790

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			2000	1700		ug/L		85	71 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*20 - 144*

Lab Sample ID: LCSD 570-612790/5
Matrix: Water
Analysis Batch: 612790

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2000	1660		ug/L		83	71 - 120	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*20 - 144*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-607954/1-A
Matrix: Water
Analysis Batch: 610166

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607954

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.010		ug/L		08/06/25 15:29	08/12/25 07:29	1
4,4'-DDE	ND		0.0050		ug/L		08/06/25 15:29	08/12/25 07:29	1
4,4'-DDT	ND		0.0050		ug/L		08/06/25 15:29	08/12/25 07:29	1
Aldrin	ND		0.0050		ug/L		08/06/25 15:29	08/12/25 07:29	1
alpha-BHC	ND		0.0020		ug/L		08/06/25 15:29	08/12/25 07:29	1
alpha-Chlordane	ND		0.050		ug/L		08/06/25 15:29	08/12/25 07:29	1
beta-BHC	ND		0.0075		ug/L		08/06/25 15:29	08/12/25 07:29	1
Chlordane	ND		0.050		ug/L		08/06/25 15:29	08/12/25 07:29	1
delta-BHC	ND		0.0050		ug/L		08/06/25 15:29	08/12/25 07:29	1
Dieldrin	ND		0.0050		ug/L		08/06/25 15:29	08/12/25 07:29	1
Endosulfan I	ND		0.0020		ug/L		08/06/25 15:29	08/12/25 07:29	1
Endosulfan II	ND		0.010		ug/L		08/06/25 15:29	08/12/25 07:29	1
Endosulfan sulfate	ND		0.0050		ug/L		08/06/25 15:29	08/12/25 07:29	1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 570-607954/1-A
Matrix: Water
Analysis Batch: 610166

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607954

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin	ND		0.0050	ug/L		08/06/25 15:29	08/12/25 07:29	1
Endrin aldehyde	ND		0.050	ug/L		08/06/25 15:29	08/12/25 07:29	1
Endrin ketone	ND		0.0050	ug/L		08/06/25 15:29	08/12/25 07:29	1
gamma-BHC (Lindane)	ND		0.0020	ug/L		08/06/25 15:29	08/12/25 07:29	1
gamma-Chlordane	ND		0.015	ug/L		08/06/25 15:29	08/12/25 07:29	1
Heptachlor	ND		0.0020	ug/L		08/06/25 15:29	08/12/25 07:29	1
Heptachlor epoxide	ND		0.010	ug/L		08/06/25 15:29	08/12/25 07:29	1
Methoxychlor	ND		0.010	ug/L		08/06/25 15:29	08/12/25 07:29	1
Toxaphene	ND		0.10	ug/L		08/06/25 15:29	08/12/25 07:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*64*		*20 - 154*	*08/06/25 15:29*	*08/12/25 07:29*	*1*
Tetrachloro-m-xylene (Surr)	*70*		*20 - 139*	*08/06/25 15:29*	*08/12/25 07:29*	*1*

Lab Sample ID: LCS 570-607954/2-A
Matrix: Water
Analysis Batch: 610166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0500	0.0389		ug/L		78	31 - 141
4,4'-DDE	0.0500	0.0371		ug/L		74	30 - 145
4,4'-DDT	0.0500	0.0420		ug/L		84	25 - 160
Aldrin	0.0500	0.0325		ug/L		65	42 - 140
alpha-BHC	0.0500	0.0338		ug/L		68	37 - 140
alpha-Chlordane	0.0500	0.0355	J	ug/L		71	45 - 140
beta-BHC	0.0500	0.0319		ug/L		64	17 - 147
delta-BHC	0.0500	0.0295		ug/L		59	19 - 140
Dieldrin	0.0500	0.0386		ug/L		77	36 - 146
Endosulfan I	0.0500	0.0342		ug/L		68	45 - 153
Endosulfan II	0.0500	0.0367		ug/L		73	1 - 202
Endosulfan sulfate	0.0500	0.0379		ug/L		76	26 - 144
Endrin	0.0500	0.0384		ug/L		77	30 - 147
Endrin aldehyde	0.0500	ND		ug/L		71	50 - 135
Endrin ketone	0.0500	0.0397		ug/L		79	60 - 140
gamma-BHC (Lindane)	0.0500	0.0343		ug/L		69	32 - 140
gamma-Chlordane	0.0500	0.0347		ug/L		69	45 - 140
Heptachlor	0.0500	0.0327		ug/L		65	34 - 140
Heptachlor epoxide	0.0500	0.0348		ug/L		70	37 - 142
Methoxychlor	0.0500	0.0409		ug/L		82	50 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*98*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*81*		*20 - 139*

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 570-607954/3-A
Matrix: Water
Analysis Batch: 610166

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 607954

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.0500	0.0299		ug/L		60	31 - 141	26	39
4,4'-DDE			0.0500	0.0279		ug/L		56	30 - 145	28	35
4,4'-DDT			0.0500	0.0315		ug/L		63	25 - 160	29	42
Aldrin			0.0500	0.0254		ug/L		51	42 - 140	25	35
alpha-BHC			0.0500	0.0255		ug/L		51	37 - 140	28	36
alpha-Chlordane			0.0500	0.0271	J	ug/L		54	45 - 140	27	35
beta-BHC			0.0500	0.0258		ug/L		52	17 - 147	21	44
delta-BHC			0.0500	0.0227		ug/L		45	19 - 140	26	52
Dieldrin			0.0500	0.0299		ug/L		60	36 - 146	25	49
Endosulfan I			0.0500	0.0282		ug/L		56	45 - 153	19	28
Endosulfan II			0.0500	0.0296		ug/L		59	1 - 202	21	53
Endosulfan sulfate			0.0500	0.0296		ug/L		59	26 - 144	25	38
Endrin			0.0500	0.0296		ug/L		59	30 - 147	26	48
Endrin aldehyde			0.0500	ND	*1	ug/L		53	50 - 135	28	25
Endrin ketone			0.0500	0.0308		ug/L		62	60 - 140	25	30
gamma-BHC (Lindane)			0.0500	0.0265		ug/L		53	32 - 140	26	39
gamma-Chlordane			0.0500	0.0260		ug/L		52	45 - 140	29	35
Heptachlor			0.0500	0.0241		ug/L		48	34 - 140	30	43
Heptachlor epoxide			0.0500	0.0265	*1	ug/L		53	37 - 142	27	26
Methoxychlor			0.0500	0.0318		ug/L		64	50 - 135	25	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*72*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*57*		*20 - 139*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-607954/1-A
Matrix: Water
Analysis Batch: 608891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607954

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.10		ug/L		08/06/25 15:29	08/08/25 22:38	1
Aroclor-1221	ND		0.10		ug/L		08/06/25 15:29	08/08/25 22:38	1
Aroclor-1232	ND		0.10		ug/L		08/06/25 15:29	08/08/25 22:38	1
Aroclor-1242	ND		0.10		ug/L		08/06/25 15:29	08/08/25 22:38	1
Aroclor-1248	ND		0.10		ug/L		08/06/25 15:29	08/08/25 22:38	1
Aroclor-1254	ND		0.10		ug/L		08/06/25 15:29	08/08/25 22:38	1
Aroclor-1260	ND		0.10		ug/L		08/06/25 15:29	08/08/25 22:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*89*		*20 - 154*	*08/06/25 15:29*	*08/08/25 22:38*	*1*
Tetrachloro-m-xylene (Surr)	*83*		*20 - 139*	*08/06/25 15:29*	*08/08/25 22:38*	*1*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 570-607954/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 608891 — **Prep Batch: 607954**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			0.200	0.209		ug/L		104	50 - 140		
Aroclor-1260			0.200	0.191		ug/L		95	8 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*92*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*87*		*20 - 139*

Lab Sample ID: LCSD 570-607954/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 608891 — **Prep Batch: 607954**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor-1016			0.200	0.212		ug/L		106	50 - 140	2	36
Aroclor-1260			0.200	0.203		ug/L		102	8 - 140	6	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*80*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*72*		*20 - 139*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-684017/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 684163 — **Prep Batch: 684017**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L		08/11/25 23:40	08/12/25 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*101*		*46 - 136*	*08/11/25 23:40*	*08/12/25 10:25*	*1*

Lab Sample ID: LCS 410-684017/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 684163 — **Prep Batch: 684017**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene Dibromide			0.129	0.118		ug/L		91	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*101*		*46 - 136*

Lab Sample ID: LCSD 410-684017/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 684163 — **Prep Batch: 684017**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide			0.129	0.131		ug/L		101	60 - 140	10	20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-684017/3-A
Matrix: Water
Analysis Batch: 684163

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 684017

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*101*		*46 - 136*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-609530/1-A
Matrix: Water
Analysis Batch: 616107

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609530

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250		ug/L		08/10/25 11:39	08/25/25 06:59	1
Diesel Range Organics [C10-C28]	ND		50		ug/L		08/10/25 11:39	08/25/25 06:59	1
C24-C44	ND		250		ug/L		08/10/25 11:39	08/25/25 06:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*68*		*53 - 151*	*08/10/25 11:39*	*08/25/25 06:59*	*1*

Lab Sample ID: LCS 570-609530/4-A
Matrix: Water
Analysis Batch: 616107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609530

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Crude Oil (C7-C44)			4000	4550		ug/L		114	43 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*84*		*53 - 151*

Lab Sample ID: LCSD 570-609530/5-A
Matrix: Water
Analysis Batch: 616107

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 609530

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Crude Oil (C7-C44)			4000	3940		ug/L		99	43 - 131	14	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*87*		*53 - 151*

Method: 8015C - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 410-686080/1-A
Matrix: Water
Analysis Batch: 686342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 686080

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13		mg/L		08/15/25 10:09	08/15/25 18:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*62*		*10 - 130*	*08/15/25 10:09*	*08/15/25 18:26*	*1*

Method: 8015C - Glycols- Direct Injection (GC/FID) (Continued)

Lab Sample ID: LCS 410-686080/2-A
Matrix: Water
Analysis Batch: 686342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 686080

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene glycol			99.8	86.9		mg/L		87	75 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Butanediol	*84*		*10 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-607575/5
Matrix: Water
Analysis Batch: 607575

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10		mg/L			08/06/25 06:40	1
Chloride	ND		1.0		mg/L			08/06/25 06:40	1
Fluoride	ND		0.10		mg/L			08/06/25 06:40	1
Sulfate	ND		1.0		mg/L			08/06/25 06:40	1

Lab Sample ID: LCS 570-607575/6
Matrix: Water
Analysis Batch: 607575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromide			5.00	4.94		mg/L		99	90 - 110		
Chloride			50.0	48.8		mg/L		98	90 - 110		
Fluoride			2.50	2.33		mg/L		93	90 - 110		
Sulfate			50.0	49.6		mg/L		99	90 - 110		

Lab Sample ID: LCSD 570-607575/7
Matrix: Water
Analysis Batch: 607575

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide			5.00	4.92		mg/L		98	90 - 110	0	15
Chloride			50.0	48.7		mg/L		97	90 - 110	0	15
Fluoride			2.50	2.33		mg/L		93	90 - 110	0	15
Sulfate			50.0	49.4		mg/L		99	90 - 110	0	15

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-8925/30
Matrix: Water
Analysis Batch: 8925

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			08/14/25 13:55	1

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: MB 350-8925/31 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8925

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			08/14/25 14:00	1

Lab Sample ID: MB 350-8925/32 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8925

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			08/14/25 14:04	1

Lab Sample ID: LCS 350-8925/42 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8925

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			5.00	4.46		ng/L		89	77 - 123		

Lab Sample ID: LCSD 350-8925/43 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8925

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			5.00	4.43		ng/L		89	77 - 123	1	24

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-8770/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8840 — **Prep Batch: 8770**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		08/11/25 00:00	08/11/25 22:44	1
Barium	ND		0.50		ug/L		08/11/25 00:00	08/11/25 22:44	1
Cadmium	ND		0.020		ug/L		08/11/25 00:00	08/11/25 22:44	1
Copper	ND		0.50		ug/L		08/11/25 00:00	08/11/25 22:44	1
Iron	ND		6.0		ug/L		08/11/25 00:00	08/11/25 22:44	1
Lead	ND		0.050		ug/L		08/11/25 00:00	08/11/25 22:44	1
Manganese	ND		0.050		ug/L		08/11/25 00:00	08/11/25 22:44	1
Selenium	ND		0.70		ug/L		08/11/25 00:00	08/11/25 22:44	1
Vanadium	ND		1.0		ug/L		08/11/25 00:00	08/11/25 22:44	1

Lab Sample ID: LCS 350-8770/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8840 — **Prep Batch: 8770**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			12.5	10.5		ug/L		84	70 - 130		
Barium			12.5	11.9		ug/L		95	70 - 130		
Cadmium			1.25	1.21		ug/L		97	70 - 130		
Copper			12.5	12.0		ug/L		96	70 - 130		
Iron			62.5	56.7		ug/L		91	70 - 130		

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-8770/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.50	2.44		ug/L		98	70 - 130
Manganese	12.5	12.3		ug/L		98	70 - 130
Selenium	12.5	11.7		ug/L		94	70 - 130
Vanadium	12.5	11.7		ug/L		94	70 - 130

Lab Sample ID: LCSD 350-8770/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8840 — **Prep Batch: 8770**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	10.9		ug/L		87	70 - 130	4	20
Barium	12.5	12.3		ug/L		98	70 - 130	3	20
Cadmium	1.25	1.24		ug/L		99	70 - 130	2	20
Copper	12.5	12.2		ug/L		98	70 - 130	2	20
Iron	62.5	59.5		ug/L		95	70 - 130	5	20
Lead	2.50	2.51		ug/L		101	70 - 130	3	20
Manganese	12.5	12.3		ug/L		99	70 - 130	0	20
Selenium	12.5	11.8		ug/L		95	70 - 130	1	20
Vanadium	12.5	12.1		ug/L		97	70 - 130	4	20

Lab Sample ID: MB 350-9021/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9136 — **Prep Batch: 9021**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		1.0	ug/L		08/20/25 16:39	08/21/25 00:52	1
Silver	ND		1.0	ug/L		08/20/25 16:39	08/21/25 00:52	1
Zinc	ND		1.0	ug/L		08/20/25 16:39	08/21/25 00:52	1

Lab Sample ID: MB 350-9021/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9136 — **Prep Batch: 9021**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		1.0	ug/L		08/20/25 16:39	08/21/25 01:06	1
Silver	ND		1.0	ug/L		08/20/25 16:39	08/21/25 01:06	1
Zinc	ND		1.0	ug/L		08/20/25 16:39	08/21/25 01:06	1

Lab Sample ID: LCS 350-9021/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9136 — **Prep Batch: 9021**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	12.5	12.2		ug/L		98	70 - 130
Silver	6.25	6.09		ug/L		97	70 - 130
Zinc	12.5	12.5		ug/L		100	70 - 130

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCSD 350-9021/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9136 — **Prep Batch: 9021**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium			12.5	12.1		ug/L		97	70 - 130	1	20
Silver			6.25	5.97		ug/L		95	70 - 130	2	20
Zinc			12.5	12.5		ug/L		100	70 - 130	0	20

Lab Sample ID: MB 350-9318/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9409 — **Prep Batch: 9318**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		6.0		ug/L		09/03/25 16:31	09/04/25 01:29	1

Lab Sample ID: MB 350-9318/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9409 — **Prep Batch: 9318**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		6.0		ug/L		09/03/25 16:31	09/04/25 01:43	1

Lab Sample ID: LCS 350-9318/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9409 — **Prep Batch: 9318**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum			125	121		ug/L		97	70 - 130		

Lab Sample ID: LCSD 350-9318/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9409 — **Prep Batch: 9318**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum			125	124		ug/L		99	70 - 130	2	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 570-608551/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 610004 — **Prep Batch: 608551**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		2.0		mg/L		08/07/25 16:03	08/11/25 11:46	1
Iron	ND		0.50		mg/L		08/07/25 16:03	08/11/25 11:46	1
Lithium	ND		0.050		mg/L		08/07/25 16:03	08/11/25 11:46	1
Magnesium	ND		0.50		mg/L		08/07/25 16:03	08/11/25 11:46	1
Potassium	ND		2.0		mg/L		08/07/25 16:03	08/11/25 11:46	1
Sodium	ND		2.0		mg/L		08/07/25 16:03	08/11/25 11:46	1
Strontium	ND		0.010		mg/L		08/07/25 16:03	08/11/25 11:46	1
SiO2, Silica	ND		0.54		mg/L		08/07/25 16:03	08/11/25 11:46	1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-608551/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 610004 — **Prep Batch: 608551**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	2.50	2.57		mg/L		103	80 - 120
Iron	0.500	0.521		mg/L		104	80 - 120
Lithium	0.500	0.509		mg/L		102	80 - 120
Magnesium	2.50	2.57		mg/L		103	80 - 120
Potassium	5.00	5.21		mg/L		104	80 - 120
Sodium	5.00	5.21		mg/L		104	80 - 120
Strontium	0.500	0.510		mg/L		102	80 - 120
SiO2, Silica	5.38	5.46		mg/L		102	80 - 120

Lab Sample ID: LCSD 570-608551/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 610004 — **Prep Batch: 608551**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	2.50	2.65		mg/L		106	80 - 120	3	20
Iron	0.500	0.536		mg/L		107	80 - 120	3	20
Lithium	0.500	0.522		mg/L		104	80 - 120	3	20
Magnesium	2.50	2.68		mg/L		107	80 - 120	4	20
Potassium	5.00	5.47		mg/L		109	80 - 120	5	20
Sodium	5.00	5.38		mg/L		108	80 - 120	3	20
Strontium	0.500	0.529		mg/L		106	80 - 120	4	20
SiO2, Silica	5.38	5.42		mg/L		101	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-608266/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 608456 — **Prep Batch: 608266**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0	ug/L		08/07/25 08:52	08/07/25 13:33	1

Lab Sample ID: LCS 570-608266/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 608456 — **Prep Batch: 608266**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	80.0	71.8		ug/L		90	80 - 120

Lab Sample ID: LCSD 570-608266/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 608456 — **Prep Batch: 608266**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium	80.0	76.6		ug/L		96	80 - 120	7	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-607676/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 607976 — **Prep Batch: 607676**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0		mg/L		08/06/25 08:23	08/06/25 15:53	1

Lab Sample ID: LCS 570-607676/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 607976 — **Prep Batch: 607676**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
HEM: Oil and Grease			40.0	35.60		mg/L		89	78 - 114		

Lab Sample ID: LCSD 570-607676/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 607976 — **Prep Batch: 607676**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease			40.0	35.30		mg/L		88	78 - 114	1	18

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-612225/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612614 — **Prep Batch: 612225**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		08/15/25 13:34	08/16/25 12:13	1

Lab Sample ID: LCS 570-612225/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612614 — **Prep Batch: 612225**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Kjeldahl Nitrogen			5.00	4.74		mg/L		95	90 - 110		

Lab Sample ID: LCSD 570-612225/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612614 — **Prep Batch: 612225**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen			5.00	4.85		mg/L		97	90 - 110	2	20

Method: 410.4 - COD

Lab Sample ID: MB 570-609499/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609525 — **Prep Batch: 609499**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L		08/10/25 08:18	08/10/25 11:17	1

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 570-609499/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609525 — **Prep Batch: 609499**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	50.0	49.3		mg/L		99	90 - 110

Lab Sample ID: LCSD 570-609499/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609525 — **Prep Batch: 609499**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	50.0	51.2		mg/L		102	90 - 110	4	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 570-612837/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612837

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		5.0	mg/L			08/17/25 17:23	1
Bicarbonate (as CaCO3)	ND		5.0	mg/L			08/17/25 17:23	1
Carbonate (as CaCO3)	ND		5.0	mg/L			08/17/25 17:23	1
Hydroxide (as CaCO3)	ND		5.0	mg/L			08/17/25 17:23	1

Lab Sample ID: LCS 570-612837/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612837

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total (As CaCO3)	106	100		mg/L		95	78 - 110

Lab Sample ID: LCSD 570-612837/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612837

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	106	99.6		mg/L		94	78 - 110	1	10

Method: SM 2520B - Salinity

Lab Sample ID: LCS 570-609968/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609968

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Salinity	35.0	36.6		psu		105	95 - 105

Lab Sample ID: LCSD 570-609968/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609968

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Salinity	35.0	36.5		psu		104	95 - 105	0	20

QC Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-609185/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609185

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			08/08/25 19:14	1

Lab Sample ID: LCS 570-609185/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609185

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	982		mg/L		98	85 - 110		

Lab Sample ID: LCSD 570-609185/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609185

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	962		mg/L		96	85 - 110	2	10

Method: SM 5310C - TOC

Lab Sample ID: MB 570-619293/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619293

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic	ND		0.50		mg/L			08/29/25 20:57	1

Lab Sample ID: LCS 570-619293/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619293

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Carbon, Non-Purgable Organic			5.03	5.23		mg/L		104	85 - 115		

Lab Sample ID: LCSD 570-619293/8 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic			5.03	5.23		mg/L		104	85 - 115	0	15

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-731123/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 731471 — **Prep Batch: 731123**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	-0.006662	U	0.705	0.705	4.00	1.25	pCi/L	08/08/25 08:19	08/11/25 17:39	1

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity (Continued)

Lab Sample ID: LCSB 160-731123/3-A
Matrix: Water
Analysis Batch: 731435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 731123

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Beta	69.4	73.92		7.94	4.00	1.04	pCi/L	107	75 - 125

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-731119/1-A
Matrix: Water
Analysis Batch: 733238

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 731119

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.08830	U	0.157	0.157	1.00	0.174	pCi/L	08/08/25 08:06	08/22/25 21:33	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*30 - 110*	*08/08/25 08:06*	*08/22/25 21:33*	*1*

Lab Sample ID: LCS 160-731119/2-A
Matrix: Water
Analysis Batch: 733236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 731119

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.57	9.211		1.24	1.00	0.253	pCi/L	96	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.5*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-731120/1-A
Matrix: Water
Analysis Batch: 733236

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 731120

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.3120	U	0.502	0.503	1.00	0.618	pCi/L	08/08/25 08:13	08/22/25 17:01	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*30 - 110*	*08/08/25 08:13*	*08/22/25 17:01*	*1*
Y Carrier	*78.5*		*30 - 110*	*08/08/25 08:13*	*08/22/25 17:01*	*1*

Lab Sample ID: LCS 160-731120/2-A
Matrix: Water
Analysis Batch: 733238

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 731120

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	9.14	10.52		1.37	1.00	0.276	pCi/L	115	75 - 125

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-731120/2-A
Matrix: Water
Analysis Batch: 733238

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 731120

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.5		30 - 110
Y Carrier	80.0		30 - 110

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-731517/1-A
Matrix: Water
Analysis Batch: 732816

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 731517

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	-0.1550	U	0.135	0.136	3.00	0.165	pCi/L	08/12/25 08:17	08/20/25 14:38	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Sr Carrier	88.6		30 - 110	08/12/25 08:17	08/20/25 14:38	1
Y Carrier	96.1		30 - 110	08/12/25 08:17	08/20/25 14:38	1

Lab Sample ID: LCS 160-731517/2-A
Matrix: Water
Analysis Batch: 732816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 731517

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Strontium-90			6.94	7.072		0.779	3.00	0.162	pCi/L	102	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Sr Carrier	80.0		30 - 110
Y Carrier	93.8		30 - 110

Method: SM7110C - Gross Alpha by Co-Precipitation

Lab Sample ID: MB 160-731429/1-A
Matrix: Water
Analysis Batch: 731671

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 731429

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.06917	U	0.362	0.362	3.00	0.502	pCi/L	08/11/25 08:49	08/12/25 14:24	1

Lab Sample ID: LCS 160-731429/2-A
Matrix: Water
Analysis Batch: 731671

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 731429

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Alpha			39.6	41.40		5.64	3.00	0.526	pCi/L	105	80 - 120		

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

GC/MS VOA

Analysis Batch: 607611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	624.1	
MB 570-607611/7	Method Blank	Total/NA	Water	624.1	
LCS 570-607611/1003	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-607611/4	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 608267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	625.1	
MB 570-608267/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-608267/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-608267/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 610322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-608267/1-A	Method Blank	Total/NA	Water	625.1	608267
LCS 570-608267/2-A	Lab Control Sample	Total/NA	Water	625.1	608267
LCSD 570-608267/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	608267

Analysis Batch: 610967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	625.1	608267

Prep Batch: 683841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	625.1	
MB 410-683841/1-A	Method Blank	Total/NA	Water	625.1	
LCS 410-683841/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 410-683841/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 684429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	625.1 SIM	683841
MB 410-683841/1-A	Method Blank	Total/NA	Water	625.1 SIM	683841
LCS 410-683841/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	683841
LCSD 410-683841/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	683841

GC VOA

Analysis Batch: 612790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	8015B	
MB 570-612790/6	Method Blank	Total/NA	Water	8015B	
LCS 570-612790/4	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-612790/5	Lab Control Sample Dup	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 607954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	608	

GC Semi VOA (Continued)

Prep Batch: 607954 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-607954/1-A	Method Blank	Total/NA	Water	608	
LCS 570-607954/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 570-607954/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-607954/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 570-607954/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 608891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-607954/1-A	Method Blank	Total/NA	Water	608.3	607954
LCS 570-607954/4-A	Lab Control Sample	Total/NA	Water	608.3	607954
LCSD 570-607954/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	607954

Analysis Batch: 609290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	608.3	607954

Prep Batch: 609530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	3510C	
MB 570-609530/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-609530/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-609530/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 610166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	608.3	607954
MB 570-607954/1-A	Method Blank	Total/NA	Water	608.3	607954
LCS 570-607954/2-A	Lab Control Sample	Total/NA	Water	608.3	607954
LCSD 570-607954/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	607954

Analysis Batch: 616107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	8015B	609530
MB 570-609530/1-A	Method Blank	Total/NA	Water	8015B	609530
LCS 570-609530/4-A	Lab Control Sample	Total/NA	Water	8015B	609530
LCSD 570-609530/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	609530

Prep Batch: 684017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	8011	
MB 410-684017/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-684017/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-684017/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 684163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	8011	684017
MB 410-684017/1-A	Method Blank	Total/NA	Water	8011	684017
LCS 410-684017/2-A	Lab Control Sample	Total/NA	Water	8011	684017
LCSD 410-684017/3-A	Lab Control Sample Dup	Total/NA	Water	8011	684017

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

GC Semi VOA

Prep Batch: 686080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	8015 DAI Prep	
MB 410-686080/1-A	Method Blank	Total/NA	Water	8015 DAI Prep	
LCS 410-686080/2-A	Lab Control Sample	Total/NA	Water	8015 DAI Prep	

Analysis Batch: 686342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	8015C	686080
MB 410-686080/1-A	Method Blank	Total/NA	Water	8015C	686080
LCS 410-686080/2-A	Lab Control Sample	Total/NA	Water	8015C	686080

HPLC/IC

Analysis Batch: 607575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	300.0	
380-164187-1 - DL	Well 14 120 Hr	Total/NA	Water	300.0	
MB 570-607575/5	Method Blank	Total/NA	Water	300.0	
LCS 570-607575/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-607575/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 8770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1640	
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1640	8770
380-164187-1	Well 14 120 Hr	Total/NA	Water	1640	8770
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	8770
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	8770
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	8770

Analysis Batch: 8840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1640	8770
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	8770
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	8770
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	8770

Analysis Batch: 8844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1640	8770
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	8770
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	8770
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	8770

Metals

Analysis Batch: 8925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1631E	
MB 350-8925/30	Method Blank	Total/NA	Water	1631E	
MB 350-8925/31	Method Blank	Total/NA	Water	1631E	
MB 350-8925/32	Method Blank	Total/NA	Water	1631E	
LCS 350-8925/42	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-8925/43	Lab Control Sample Dup	Total/NA	Water	1631E	

Prep Batch: 9021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1640	
MB 350-9021/1-A	Method Blank	Total/NA	Water	1640	
MB 350-9021/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-9021/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-9021/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 9136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1640	9021
MB 350-9021/1-A	Method Blank	Total/NA	Water	1640	9021
MB 350-9021/2-A	Method Blank	Total/NA	Water	1640	9021
LCS 350-9021/3-A	Lab Control Sample	Total/NA	Water	1640	9021
LCSD 350-9021/4-A	Lab Control Sample Dup	Total/NA	Water	1640	9021

Prep Batch: 9318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1640	
MB 350-9318/1-A	Method Blank	Total/NA	Water	1640	
MB 350-9318/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-9318/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-9318/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 9409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1640	9318
MB 350-9318/1-A	Method Blank	Total/NA	Water	1640	9318
MB 350-9318/2-A	Method Blank	Total/NA	Water	1640	9318
LCS 350-9318/3-A	Lab Control Sample	Total/NA	Water	1640	9318
LCSD 350-9318/4-A	Lab Control Sample Dup	Total/NA	Water	1640	9318

Prep Batch: 608266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total Recoverable	Water	3005A	
MB 570-608266/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 570-608266/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 570-608266/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Analysis Batch: 608456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-608266/1-A	Method Blank	Total Recoverable	Water	6020	608266
LCS 570-608266/2-A	Lab Control Sample	Total Recoverable	Water	6020	608266
LCSD 570-608266/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020	608266

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Metals

Prep Batch: 608551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total Recoverable	Water	3005A	
MB 570-608551/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 570-608551/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 570-608551/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Analysis Batch: 609082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total Recoverable	Water	6020	608266

Analysis Batch: 610004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total Recoverable	Water	6010D	608551
MB 570-608551/1-A	Method Blank	Total Recoverable	Water	6010D	608551
LCS 570-608551/2-A	Lab Control Sample	Total Recoverable	Water	6010D	608551
LCSD 570-608551/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	608551

Analysis Batch: 610058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total Recoverable	Water	6010D	608551

General Chemistry

Prep Batch: 607676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1664A	
MB 570-607676/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-607676/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-607676/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 607976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	1664A	607676
MB 570-607676/1-A	Method Blank	Total/NA	Water	1664A	607676
LCS 570-607676/2-A	Lab Control Sample	Total/NA	Water	1664A	607676
LCSD 570-607676/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	607676

Analysis Batch: 609185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	SM 2540C	
MB 570-609185/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-609185/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-609185/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Prep Batch: 609499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	410.4	
MB 570-609499/3-A	Method Blank	Total/NA	Water	410.4	
LCS 570-609499/4-A	Lab Control Sample	Total/NA	Water	410.4	
LCSD 570-609499/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

General Chemistry

Analysis Batch: 609525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	410.4	609499
MB 570-609499/3-A	Method Blank	Total/NA	Water	410.4	609499
LCS 570-609499/4-A	Lab Control Sample	Total/NA	Water	410.4	609499
LCSD 570-609499/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	609499

Analysis Batch: 609968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	SM 2520B	
LCS 570-609968/3	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 570-609968/4	Lab Control Sample Dup	Total/NA	Water	SM 2520B	

Prep Batch: 612225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	351.2	
MB 570-612225/3-A	Method Blank	Total/NA	Water	351.2	
LCS 570-612225/4-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-612225/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	

Analysis Batch: 612614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	351.2	612225
MB 570-612225/3-A	Method Blank	Total/NA	Water	351.2	612225
LCS 570-612225/4-A	Lab Control Sample	Total/NA	Water	351.2	612225
LCSD 570-612225/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	612225

Analysis Batch: 612837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	SM 2320B	
MB 570-612837/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 570-612837/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 570-612837/3	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 619293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	SM 5310C	
MB 570-619293/6	Method Blank	Total/NA	Water	SM 5310C	
LCS 570-619293/7	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 570-619293/8	Lab Control Sample Dup	Total/NA	Water	SM 5310C	

Rad

Prep Batch: 731119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	PrecSep-21	
MB 160-731119/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-731119/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 731120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	PrecSep_0	
MB 160-731120/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 731120 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-731120/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 731123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	Evaporation	
MB 160-731123/1-A	Method Blank	Total/NA	Water	Evaporation	
LCSB 160-731123/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

Prep Batch: 731429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	Coprecipitation	
MB 160-731429/1-A	Method Blank	Total/NA	Water	Coprecipitation	
LCS 160-731429/2-A	Lab Control Sample	Total/NA	Water	Coprecipitation	

Prep Batch: 731517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-164187-1	Well 14 120 Hr	Total/NA	Water	PrecSep-7	
MB 160-731517/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-731517/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Client Sample ID: Well 14 120 Hr

Date Collected: 08/04/25 09:00
Date Received: 08/05/25 10:30

Lab Sample ID: 380-164187-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	607611	U1MC	EET CAL 4	08/06/25 11:41
Total/NA	Prep	625.1			608267	OAJ3	EET CAL 4	08/07/25 08:55
Total/NA	Analysis	625.1		1	610967	CG	EET CAL 4	08/13/25 20:20
Total/NA	Prep	625.1			683841	T9CY	ELLE	08/11/25 15:38
Total/NA	Analysis	625.1 SIM		1	684429	TB8M	ELLE	08/12/25 21:57
Total/NA	Analysis	8015B		1	612790	W4LC	EET CAL 4	08/17/25 18:17
Total/NA	Prep	608			607954	S4EA	EET CAL 4	08/06/25 15:29
Total/NA	Analysis	608.3		1	610166	N5Y3	EET CAL 4	08/12/25 08:59
Total/NA	Prep	608			607954	S4EA	EET CAL 4	08/06/25 15:29
Total/NA	Analysis	608.3		1	609290	P2HW	EET CAL 4	08/09/25 10:44
Total/NA	Prep	8011			684017	USL7	ELLE	08/11/25 23:40
Total/NA	Analysis	8011		1	684163	M6UH	ELLE	08/12/25 11:16
Total/NA	Prep	3510C			609530	TVD6	EET CAL 4	08/10/25 11:39
Total/NA	Analysis	8015B		1	616107	H6FE	EET CAL 4	08/25/25 08:04
Total/NA	Prep	8015 DAI Prep			686080	WZ6J	ELLE	08/15/25 10:09
Total/NA	Analysis	8015C		1	686342	LXF2	ELLE	08/15/25 23:30
Total/NA	Analysis	300.0		40	607575	UIP1	EET CAL 4	08/06/25 07:35
Total/NA	Analysis	300.0	DL	500	607575	UIP1	EET CAL 4	08/06/25 08:41
Total/NA	Analysis	1631E		1	8925	AJD	EET SSM	08/14/25 18:25
Total/NA	Prep	1640			8770	V1R	EET SSM	08/11/25 00:00
Total/NA	Analysis	1640		1	8836	V1R	EET SSM	08/12/25 01:47
Total/NA	Prep	1640			8770	V1R	EET SSM	08/11/25 00:00
Total/NA	Analysis	1640		1	8840	COW	EET SSM	08/12/25 01:47
Total/NA	Prep	1640			8770	V1R	EET SSM	08/11/25 00:00
Total/NA	Analysis	1640		1	8844	COW	EET SSM	08/12/25 01:47
Total/NA	Prep	1640			8770	V1R	EET SSM	08/11/25 00:00
Total/NA	Analysis	1640		10	8836	V1R	EET SSM	08/12/25 16:07
Total/NA	Prep	1640			9021	COW	EET SSM	08/20/25 16:39
Total/NA	Analysis	1640		1	9136	COW	EET SSM	08/22/25 00:21
Total/NA	Prep	1640			9318	COW	EET SSM	09/03/25 16:31
Total/NA	Analysis	1640		1	9409	COW	EET SSM	09/04/25 08:04
Total Recoverable	Prep	3005A			608551	F4JD	EET CAL 4	08/07/25 16:03
Total Recoverable	Analysis	6010D		10	610004	K1UV	EET CAL 4	08/11/25 12:27
Total Recoverable	Prep	3005A			608551	F4JD	EET CAL 4	08/07/25 16:03
Total Recoverable	Analysis	6010D		20	610058	P1R	EET CAL 4	08/11/25 15:20
Total Recoverable	Prep	3005A			608266	F4JD	EET CAL 4	08/07/25 08:52
Total Recoverable	Analysis	6020		10	609082	RL6Q	EET CAL 4	08/08/25 15:27
Total/NA	Prep	1664A			607676	S7HP	EET CAL 4	08/06/25 08:44
Total/NA	Analysis	1664A		1	607976	LM3A	EET CAL 4	08/06/25 15:53
Total/NA	Prep	351.2			612225	ZL7L	EET CAL 4	08/15/25 13:34
Total/NA	Analysis	351.2		1	612614	ZL7L	EET CAL 4	08/16/25 12:17
Total/NA	Prep	410.4			609499	TP6R	EET CAL 4	08/10/25 08:18
Total/NA	Analysis	410.4		1	609525	TP6R	EET CAL 4	08/10/25 11:18

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Client Sample ID: Well 14 120 Hr

Date Collected: 08/04/25 09:00
Date Received: 08/05/25 10:30

Lab Sample ID: 380-164187-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2320B		1	612837	LNW3	EET CAL 4	08/17/25 18:17
Total/NA	Analysis	SM 2520B		1	609968	GG0B	EET CAL 4	08/11/25 14:18
Total/NA	Analysis	SM 2540C		1	609185	ZL7L	EET CAL 4	08/08/25 19:14
Total/NA	Analysis	SM 5310C		2	619293	U8XP	EET CAL 4	08/30/25 01:36
Total/NA	Prep	Evaporation			731123	OGC	EET SL	08/08/25 08:19
Total/NA	Analysis	900.0		1	731471	FLC	EET SL	08/11/25 18:58
Total/NA	Prep	PrecSep-21			731119	JTR	EET SL	08/08/25 08:06
Total/NA	Analysis	903.0		1	734472	FLC	EET SL	09/02/25 21:19
Total/NA	Prep	PrecSep_0			731120	JTR	EET SL	08/08/25 08:13
Total/NA	Analysis	904.0		1	733236	SWS	EET SL	08/22/25 17:02
Total/NA	Prep	PrecSep-7			731517	JTR	EET SL	08/12/25 08:17
Total/NA	Analysis	905		1	732822	SWS	EET SL	08/20/25 14:42
Total/NA	Analysis	Ra226_Ra228 Pos		1	734332	FLC	EET SL	09/02/25 09:21
Total/NA	Prep	Coprecipitation			731429	OGC	EET SL	08/11/25 08:49
Total/NA	Analysis	SM7110C		1	731671	SCB	EET SL	08/12/25 14:24

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	10-20-25
Arizona	State	AZ0830	11-15-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-29-25
California	State	3082	10-14-25
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	09-10-25
Oregon	NELAP	4175	09-18-25
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	08-27-25
A2LA	Dept. of Energy	0001.01	08-27-25
A2LA	ISO/IEC 17025	0001.01	08-27-25
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-26
California	State	2792	01-07-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	11-16-25
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	10-28-25
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	08-27-25
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	11-09-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	12-31-25
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	09-15-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA011	11-24-25
New York	NELAP	10670	09-09-25
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	09-01-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	08-24-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-27-25
Virginia	NELAP	460182	09-14-25
Washington	State	C457	10-23-25
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	09-03-25
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	08-27-25

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-07-26
Florida	NELAP	E87575	06-30-26
Louisiana (All)	NELAP	03073	07-01-26
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-26
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167	07-08-26
US Fish & Wildlife	US Federal Programs	A20571	06-30-26
USDA	US Federal Programs	525-23-4-22573	01-24-28
Washington	State	C788	07-13-26
Wisconsin	State	399133460	08-31-26

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	11-10-25
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	11-10-25
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	09-07-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	12-11-25
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-10-25
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	11-10-25
New York	NELAP	11616	10-23-25
North Carolina (DW)	State	29700	12-28-25
North Dakota	State	R-207	06-30-26
Oklahoma	NELAP	9997	10-22-25
Oregon	NELAP	4157	09-01-26
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	10-05-25
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-31-26
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	ELLE
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
608.3	Organochlorine Pesticides in Water	EPA	EET CAL 4
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CAL 4
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
8015C	Glycols- Direct Injection (GC/FID)	SW846	ELLE
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1640	Metals (ICPMS)	EPA	EET SSM
6010D	Metals (ICP)	SW846	EET CAL 4
6020	Metals (ICP/MS)	SW846	EET CAL 4
1664A	HEM and SGT-HEM	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
410.4	COD	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EET CAL 4
SM 2520B	Salinity	SM	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
SM 5310C	TOC	SM	EET CAL 4
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
SM7110C	Gross Alpha by Co-Precipitation	SM	EET SL
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
410.4	COD	EPA	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	ELLE
8011	Microextraction	SW846	ELLE
8015 DAI Prep	Preparation, Direct Aqueous Injection	SW846	ELLE
Coprecipitation	Preparation, Coprecipitation	None	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Method	Method Description	Protocol	Laboratory

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-164187-1
SDG: Well 14 120 Hr

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-164187-1	Well 14 120 Hr	Water	08/04/25 09:00	08/05/25 10:30	Hawaii

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone. 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler	Lab PM: Lopez, Maria	Carrier Tracking No(s)	COC No: 380-89100-26842.1
Client Contact: Jordan Moniuszko	Phone:	E-Mail: Maria Lopez@et.eurofinsus.com	State of Origin.	Page: Page 1 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested			Preservation Codes: N - None, S - H2SO4, D - HNO3, A - HCL
City: Kailua	TAT Requested (days)			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera.com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300_ORGFM_28D, SM2520_B	351.2 - Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900 0 - Gross Beta Only	903.0, 905_Sr90	904.0 - Radium-228	1640 - Al, As,Ba,Cd,Cr,Cu,Fe,Pb,Mn,Se,Sr,Ag,U,V	1631E - Mercury, Total	6010D - Ca,Fe, Li,Mg,K,Na	624.1 - (MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	608.3_PCB, 608.3_Pest, 625.1	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	S	S	S	D	D	D	D	N	A	N	A	N		
Well 14 120 Hr	8/14/25	9.00	G	Water	N		2		1	3	1	1			1	1	1	3		22	
				Water																	
				Water																	
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				Water																	
				Water																	
				Water																	

380-164187 COC

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment: FedX 391763849059

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8/14/25 2:00		[signature] Mark Urrutia	8/15/25 1030	EL HP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks: (631H) 2.7+0.1 2.7 ice frozen

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler:	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No: 380-89100-26842.4
Client Contact: Jordan Moniuszko	Phone	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin:	Page: Page 4 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested:			
City: Kailua	TAT Requested (days):			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
N - None
S - H2SO4

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_GRO - Gasoline Range Organics	8015B_DRO - DRO (C10-C28)	1664A - Oil & Grease	625.1_SIM_PREC - (MOD) Local Method	8011 - (MOD) Custom Analyte List	1633_Final - Standard List	8015C_DAI_GLY - (MOD) Custom Analyte List	Nitrogen,Total	8015B_DRO - Crude Oil (C7-C44)	2540 TDS	Extra Volume - Please hold			Total Number of containers	Special Instructions/Note
			Preservation Code:				A	N	S	N	A	N	N	N	N	N	D				
~~Trip Blank~~ Well 14 120 hr	8/4/25	9:00	G	Water	N		2				2		2			1	1			22	
~~Trip blak~~				Water																	
~~Trip Blank~~				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FedEx 391763899079

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	8/4/25 2:00		~~[illegible]~~ Mark Uratin	8/5/25 1050	ECHO

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: (6314) 2 2-40 2.7 ice frozen

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone. 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler:	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No: 380-89100-26842.4
Client Contact: Jordan Moniuszko	Phone:	E-Mail: Maria Lopez@et.eurofinsus.com	State of Origin:	Page: Page 4 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested:			
City: Kailua	TAT Requested (days):			
State Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera.com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: A - HCL; N - None; S - H2SO4

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_GRO - Gasoline Range Organics	8015B_DRO - DRO (C10-C28)	1664A - Oil & Grease	625.1_SIM_PREC - (MOD) Local Method	8011 - (MOD) Custom Analyte List	1633_Final - Standard List	8015C_DAI_GLY - (MOD) Custom Analyte List	Nitrogen,Total	8015B_DRO - Crude Oil (C7-C44)					Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	S	N	A	N	N	N	N						
Trip Blank	8/4/25	9:00	G	Water							2										2
~~Trip blak~~				Water																	
~~Trip Blank~~				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II, III, IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time:	Method of Shipment: FedX 391763849059

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8/4/25 2:00		Mark Urratia	8/5/25 1030	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: (631A) 2.7 + 0 U 2.7 ice frozen

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone. 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler	Lab PM. Lopez, Maria	Carrier Tracking No(s)	COC No: 380-89100-26842.3
Client Contact: Jordan Moniuszko	Phone:	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin:	Page: Page 3 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested:			
City: Kailua	TAT Requested (days):			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			

Analysis Requested

Preservation Codes
N - None
S - H2SO4
D - HNO3
A - HCL

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B_300_ORGFM_28D_SM2540_B	354.2 - Total Kjeldahl Nitrogen (TKN)	410.4 - Low Level Chemical Oxygen Demand (COD)	SM5310B - Total Organic Carbon (TOC)	SM1110B - Gross Alpha by Co-Precip	900.0 - Gross Beta Only	903.0_905_Sr90 8015B Gasoline Range Org	904.0 - Radium-228	1640 - Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Ag, Tl, V	1631E - Mercury, Total	6010B - Ca, Fe, Li, Mg, K, Na	624.1 - (MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	608.3 - PCB - 608.3 - Pest. 525.1	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	S	S	D	D	A	D	N	A	N	A	N		
Trip Blank	8/4/25	9:00	G	Water									2					2			4
~~Trip blank~~				Water																	
~~Trip Blank~~				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested I, II III IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time	Method of Shipment: FedX: 391763899076

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	8/4/25 2:00		[signature] Mark Urutia	8/5/25 1030	EEAP
Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company
Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: (631A) 2.4+0.0 - 2.4 , ice frozen

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone. 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No: 380-89100-26842 5
Client Contact: Jordan Moniuszko	Phone:	E-Mail: Maria Lopez@et.eurofinsus.com	State of Origin.	Page: Page 5 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested			
City: Kailua	TAT Requested (days)			
State Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera.com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
N - None
S - H2SO4
D - HNO3
A - HCL
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	~~2320B_300_ORGFM_28D_SM2320_B~~	351.2 - Total Kjeldahl Nitrogen (TKN)	~~410.4_Lt_Low Level Chemical Oxygen Demand (COD)~~	~~SM5310D_Total Organic Carbon (TOC)~~	~~SM7110C_Gross Alpha by Co Recip~~	~~900.0_Gross Beta Only~~	903.0, 905_Sr90	904.0 - Radium-228	~~4500_As,Ba,Cd,Cr,Cu,Fe,Pb,Mn,Se,Sn,Ag,Tl,V~~	~~1631E_Mercury_Total~~	~~6010D_Ca,Fe,Lt_Mg,K,Na~~	~~6244_(MOD) Routine w/Rods w/ AA w/2 GFAF (3-~~	608.3_PCB, 608.3_Pest, 625.1	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	S	S	D	D	D	D	N	A	N	A	N		
Well 14 120 Air	8/14/25	9 00	G	Water	N			1					2	1					3	3	
				Water																	
				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FedEx 3917 6389 4070	
Relinquished by:	Date/Time: 8/14/25 2.00	Company	Received by: Nada Urrutia	Date/Time: 8/15/25 1030	Company: EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: (6 SIA) 2.4+0.0 2.4 ice frozen

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler:	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No: 380-89100-26842.6
Client Contact: Jordan Moniuszko	Phone:	E-Mail: Maria Lopez@et.eurofinsus.com	State of Origin:	Page: Page 6 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested:			
City: Kailua	TAT Requested (days)			
State Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			

Analysis Requested

Preservation Codes.
A - HCL
N - None
S - H2SO4
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	~~8015B_GRO_Gasoline Range Organics~~	8015B_DRO_DRO (C10-C28)	1664A - Oil & Grease	~~8082_GW_PREC_(MCP) Legal Method~~	8011 - (MCP) Custom Analyte List	~~1633_Final_Standard List~~	~~8015C_DAT_GLY - (MCP) Custom Analyte List~~	Nitrogen, Total 625.1 Sim 1,4 dioxane	8015B_DRO - Crude Oil (eT-C44)	6020 - U				Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	S	N	A	N	N	N	N	N					
Well 14 120 Hr	8/4/25	9:00	G	Water	N				1	6				2	2	1				13	
				Water																	
				Water																	

Page 68 of 86

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time	Method of Shipment: FedEx 391763899070

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8/4/25 2:00		[signature] Mark Uratin	8/5/25 1030	EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No | Cooler Temperature(s) °C and Other Remarks: (63(A) 24+00 24 ice frozen

Ver: 10/10/2024

1/9/2026 (Rev. 1)

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

Shipping Summary

eurofins | Environment Testing

S380-89100

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone (626) 386-1100

Bottle Order Information

Bottle Order: *Kalealoa Desalination Project (11 sets)*
Bottle Order # *26842*
Request From Client *6/6/2025*
Date Order Posted *6/9/2025 9 59·19AM*
Order Status *Shipped*
Prepared By *Maria Lopez*
Deliver By Date: ***6/13/2025 11:59:00PM***

When To Ship:

Project/Event Information

Project Manager· *Maria Lopez*
Em. Maria.Lopez@et eurofinsus com
Lab Project Number *38009251*
Project Ref· *Kalealoa Desalination Project*
Event Desc

Client Samples·

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	✓ 2	Plastic 250ml - unpreserved		None	300_ORGFM_28D - Anions Full List 2320B - Alkalinity - All Forms SM2520_B - Salinity	Water Water Water	Calsci
11	✓ 1	Amber Glass 1 liter - Sulfuric Acid		Sulfuric Acid	351 2 - Total Kjeldahl Nitrogen (TKN)	Water	"
11	✓ 1	Plastic 250ml - with Sulfuric Acid		Sulfuric Acid	410 4_LL - Low Level Chemical Oxygen Demand (COD)	Water	"
11	✓ 3	Voa Vial 40mL Amber - H2SO4		Sulfuric Acid	SM5310D - Total Organic Carbon (TOC)	Water	"
11	✓ 1	Plastic 500ml - with Nitric Acid		Nitric Acid	SM7110C - Gross Alpha by Co-Precip	Water	Stl
11	✓ 1	Plastic 500ml - with Nitric Acid		Nitric Acid	900 0 - Gross Beta Only	Water	"

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Shipping Summary

Client Samples

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	2	Plastic 1 liter - Nitric Acid		Nitric Acid	903 0 - Radium-226 905_Sr90 - Strontium-90	Water Water	Std
11	1	Plastic 1 liter - Nitric Acid		Nitric Acid	904.0 - Radium-228	Water	"
11	1	Plastic 250ml - unpreserved	Yes	None	1640 - Al, As,Ba,Cd,Cr,Cu,Fe,Pb,Mn,Se,Sr,Ag, U,V	Water	Special
11	1	Clear Glass 250ml - HCL	Yes	Hydrochloric Acid	1631E - Mercury, Total	Water	"
11	1	Plastic 250ml - unpreserved	Yes	None	6010D - Ca,Fe, Li,Mg,K,Na	Water	Calsci
11	3	Voa Vial 40mL Amber - Hydrochloric Acid		Hydrochloric Acid	624.1 - (MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	Water	"
11	3	Amber Glass 1 liter - unpreserved		None	625 1 - (MOD) Routine Semivolatiles List 608 3_Pest - Routine Pesticides List 608 3_PCB - Routine PCB Aroclor List	Water Water Water	"
11	2	Voa Vial 40ml - Hydrochloric Acid		Hydrochloric Acid	8015B_GRO - Gasoline Range Organics	Water	"
11	1	Amber Glass 250ml - unpreserved		None	8015B_DRO - DRO (C10-C28)	Water	"
11	1	Amber Glass 1 liter - Sulfuric Acid		Sulfuric Acid	1664A - Oil & Grease	Water	"
11	2	Amber Glass 250ml - unpreserved		None	625 1_SIM_PREC - (MOD) Local Method	Water	Elle
11	2	Voa Vial 40ml - Hydrochloric Acid		Hydrochloric Acid	8011 - (MOD) Custom Analyte List	Water	Elle
~~11~~	~~2~~	~~Plastic 125mL - unpreserved~~		None	~~1633_Final - Standard List~~	Water	
11	2	Voa Vial 40ml - unpreserved		None	8015C_DAI_GLY - (MOD) Custom Analyte List	Water	"
11	0	No Container		None	Nitrogen,Total - Total Nitrogen	Water	

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Shipping Summary

Client Samples

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	1	Amber Glass 250ml - unpreserved		None	8015B_DRO - Crude Oil (C7-C44)	Water	Calsci

+ GO20 - Calsci
+ EXTRA - HOLD

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Shipping Summary

Client Samples Trip blak, Trip Blank, Trip Blank

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
3	2	VOA vial 40mL Trip BL - HCL		Hydrochloric Acid	624 1 - (MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	Water	
3	2	Voa Vial 40ml - Hydrochloric Acid		Hydrochloric Acid	8011 - (MOD) Custom Analyte List	Water	
3	2	Voa Vial 40ml - Hydrochloric Acid		Hydrochloric Acid	8015B_GRO - Gasoline Range Organics	Water	

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Shipping Summary

eurofins | Environment Testing

S380-89391

Eurofins Hawaii Service Center
111 Sand Island Access Rd, Unit R-10
Honolulu, HI 96819

Bottle Order Information

Bottle Order: *TDS (11 sites)*
Bottle Order # *26952*
Request From Client *6/13/2025*
Date Order Posted. *6/13/2025 10:47.12AM*
Order Status *Shipped*
Prepared By *Maria Lopez*
Deliver By Date: ***6/16/2025 11:59:00PM***

When To Ship:

Project/Event Information

Project Manager *Maria Lopez*
Em. Maria Lopez@et eurofinsus com
Lab Project Number *38009251*
Project Ref: *Kalealoa Desalination Project*
Event Desc

Client Samples

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	1	Plastic 250ml - unpreserved		None	2540C_Calcd - Total Dissolved Solids (TDS)	Water	

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-237581.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-164187-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 9/2/2025			
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes: -

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM7110C/COPRECIPGross Alpha by Co-Precip	900.0/EvaporationGross Beta Only	903.0/PrecSep_21Radium-226	904.0/PrecSep_0Radium-228	Ra226_228GFPC_P	905_Sr90/PrecSep_7Strontium-90	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
Well 14 120 Hr (380-164187-1)	8/4/25	09:00 Hawaiian	G	Water			X	X	X	X	X	X	6	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:	Method of Shipment:	
Relinquished by: Guillermo Y	Date/Time: 8.6.25 9:15	Company	Received by: Sierra Woothington	Date/Time: AUG 07 2025 0825	Company GTSN	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-237580 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-164187-1
Address: 5755 8th Street East, ,	Due Date Requested: 9/2/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7- 19+ Metals	1631EMercury, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Well 14 120 Hr (380-164187-1)	8/4/25	09 00 Hawaiian	G	Water			X	X	2	High TDS sample, dilute accordingly

Med Blue

Therm. ID: SC03 Cust. Seal: Y / N
Uncorr./Corr. Temp: 0.1-0.2°C
Delivery: UPS / FedEx / Other
Ice Type: Blue / Dry / Wet / None
Packing: B
Label Ver. 02

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time.		Method of Shipment:	
Relinquished by: Gues/RPM	Date/Time: 8/6/25 8:45	Company	Received by:	Date/Time: 8/7/25 9:54	Company BCN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks.		

Ver 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-237576.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-164187-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 9/2/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 14 120 Hr (380-164187-1)	8/4/25	09:00 Hawaiian	G	Water			X	X	X	6	High TDS sample, dilute accordingly
Trip Blank (380-164187-2)	8/4/25	09:00 Hawaiian	G	Water			X			2	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:	
Relinquished by: Guillermo V	Date/Time: 8/6/25 8:00	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time: 8/7/25 11:10	Company ET
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: R: 1.0 C: 0.9			

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins

Loc: 380
164187

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-237555.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-164187-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/2/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	8015B_GRO/5030C(MOD) Gasoline Range Organics	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Trip Blank (380-164187-2)	8/4/25	09:00 Hawaiian	G	Water			X	X	4	High TDS sample, dilute accordingly

380-164187 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	8/5/25 1522	[illegible]	[illegible]	8-5-25 1523	WP
[illegible]	8-5-25 1620	WP	[illegible]	8/5/25 1620	[illegible]

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.2/1.5 SC6

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

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Loc: 380
164187

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-237553.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-164187-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/2/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	608.3_PCB/608_Prep_PCBRoutine PCB Aroclor List	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	Nitrogen,TotalTotal Nitrogen	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	8015B_GRO/5030C(MOD) Gasoline Range Organics	8015B_DRO/3510C_LVIDRO (C10-C28)	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
Well 14 120 Hr (380-164187-1)	8/4/25	09:00 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	21	High TDS sample, dilute accordingly

380-164187 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	8/5/25 1522	Eaton	[illegible]	8-5-25 1523	WP
[illegible]	8-5-25 1620	WP	[illegible]	8/5/25 1620	BC

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.2/1.5 SCG

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-237553.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-164187-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/2/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	2540C_CalcdTotal Dissolved Solids (TDS)	5310CTOC, Standard analysis, 3 replicates	6010D/3005A(MOD) Custom 6010D Metals List	6020/3005A(MOD) Custom 6020 Metals List	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
Well 14 120 Hr (380-164187-1)	8/4/25	09:00 Hawaiian	G	Water			X	X	X	X	X	21	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	8/5/25 1522	EOL	[illegible]	8-5-25 1523	WP
[illegible]	8-5-25 1620	WP	[illegible]	8/5/25 1620	EC

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.2 | 1.5 SCG

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Date:	8/7/2025
End Time:	13:35
KI Paper Lot:	na
Analyst:	VL
Pipette:	ND

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	na
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-164187-N-1	A	Y	5 2	No

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Date:	8/7/2025
End Time:	13:26
pH Paper Lot:	hc441704
Analyst:	[illegible]
Pipette:	NO

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	na
A	Hydrochloric Acid	na
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-164187-M-1	22	NO	NO	NO	NO

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-164187-1
SDG Number: Well 14 120 Hr

Login Number: 164187
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-164187-1
SDG Number: Well 14 120 Hr

Login Number: 164187
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 08/05/25 06:34 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-164187-1
SDG Number: Well 14 120 Hr

Login Number: 164187
List Number: 4
Creator: Arroyo, Haley

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 08/07/25 03:14 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-164187-1
SDG Number: Well 14 120 Hr

Login Number: 164187
List Number: 5
Creator: Miller, Darren R

List Source: Eurofins Seattle Specialty Metals
List Creation: 08/07/25 01:11 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-164187-1
SDG Number: Well 14 120 Hr

Login Number: 164187
List Number: 3
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 08/07/25 11:51 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 8/27/2025 6:47:24 AM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 14 Step

JOB NUMBER

380-163071-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

Generated
8/27/2025 6:47:24 AM

Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 12
QC Sample Results 14
QC Association Summary 22
Lab Chronicle 24
Certification Summary 25
Method Summary 27
Sample Summary 28
Chain of Custody 29
Receipt Checklists 35

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-163071-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 7/29/2025 9:56 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C.

GC/MS VOA
Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-604359. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. .

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 5310C: The following sample was diluted due to the nature of the sample matrix: Well 14 Step (380-163071-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163071-1
SDG: Well 14 Step

Client Sample ID: Trip Blank — Lab Sample ID: 380-163071-1

No Detections.

Client Sample ID: Well 14 Step — Lab Sample ID: 380-163071-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163071-1
SDG: Well 14 Step

Client Sample ID: Trip Blank

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163071-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/30/25 10:04	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/30/25 10:04	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/30/25 10:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/30/25 10:04	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/30/25 10:04	1
1,1-Dichloroethane	ND		1.0		ug/L			07/30/25 10:04	1
1,1-Dichloroethene	ND		1.0		ug/L			07/30/25 10:04	1
1,1-Dichloropropene	ND		1.0		ug/L			07/30/25 10:04	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/30/25 10:04	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/30/25 10:04	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/30/25 10:04	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/30/25 10:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/30/25 10:04	1
1,2-Dibromoethane	ND		1.0		ug/L			07/30/25 10:04	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/30/25 10:04	1
1,2-Dichloroethane	ND		0.50		ug/L			07/30/25 10:04	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/30/25 10:04	1
1,2-Dichloropropane	ND		1.0		ug/L			07/30/25 10:04	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/30/25 10:04	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/30/25 10:04	1
1,3-Dichloropropane	ND		1.0		ug/L			07/30/25 10:04	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/30/25 10:04	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/30/25 10:04	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/30/25 10:04	1
2,2-Dichloropropane	ND		1.0		ug/L			07/30/25 10:04	1
2-Butanone	ND		10		ug/L			07/30/25 10:04	1
2-Chlorotoluene	ND		1.0		ug/L			07/30/25 10:04	1
2-Hexanone	ND		10		ug/L			07/30/25 10:04	1
4-Chlorotoluene	ND		1.0		ug/L			07/30/25 10:04	1
4-Methyl-2-pentanone	ND		10		ug/L			07/30/25 10:04	1
Acetone	ND		12		ug/L			07/30/25 10:04	1
Acrylonitrile	ND		2.0		ug/L			07/30/25 10:04	1
Benzene	ND		0.50		ug/L			07/30/25 10:04	1
Bromobenzene	ND		1.0		ug/L			07/30/25 10:04	1
Bromochloromethane	ND		1.0		ug/L			07/30/25 10:04	1
Bromodichloromethane	ND		1.0		ug/L			07/30/25 10:04	1
Bromoform	ND		1.0		ug/L			07/30/25 10:04	1
Bromomethane	ND		5.0		ug/L			07/30/25 10:04	1
Carbon disulfide	ND		10		ug/L			07/30/25 10:04	1
Carbon tetrachloride	ND		0.50		ug/L			07/30/25 10:04	1
Chlorobenzene	ND		1.0		ug/L			07/30/25 10:04	1
Chloroethane	ND		1.0		ug/L			07/30/25 10:04	1
Chloroform	ND		1.0		ug/L			07/30/25 10:04	1
Chloromethane	ND		1.0		ug/L			07/30/25 10:04	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/30/25 10:04	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/30/25 10:04	1
Dibromochloromethane	ND		1.0		ug/L			07/30/25 10:04	1
Dibromomethane	ND		1.0		ug/L			07/30/25 10:04	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/30/25 10:04	1

Client Sample ID: Trip Blank

Lab Sample ID: 380-163071-1

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/30/25 10:04	1
Ethanol	ND		100		ug/L			07/30/25 10:04	1
Ethylbenzene	ND		1.0		ug/L			07/30/25 10:04	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			07/30/25 10:04	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/30/25 10:04	1
Isopropanol	ND		50		ug/L			07/30/25 10:04	1
Isopropylbenzene	ND		1.0		ug/L			07/30/25 10:04	1
m,p-Xylene	ND		1.0		ug/L			07/30/25 10:04	1
Methylene Chloride	ND		2.0		ug/L			07/30/25 10:04	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			07/30/25 10:04	1
Naphthalene	ND		10		ug/L			07/30/25 10:04	1
n-Butylbenzene	ND		1.0		ug/L			07/30/25 10:04	1
N-Propylbenzene	ND		1.0		ug/L			07/30/25 10:04	1
o-Xylene	ND		1.0		ug/L			07/30/25 10:04	1
p-Isopropyltoluene	ND		1.0		ug/L			07/30/25 10:04	1
sec-Butylbenzene	ND		1.0		ug/L			07/30/25 10:04	1
Styrene	ND		1.0		ug/L			07/30/25 10:04	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			07/30/25 10:04	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			07/30/25 10:04	1
tert-Butylbenzene	ND		1.0		ug/L			07/30/25 10:04	1
Tetrachloroethene	ND		1.0		ug/L			07/30/25 10:04	1
Tetrahydrofuran	ND		10		ug/L			07/30/25 10:04	1
Toluene	ND		1.0		ug/L			07/30/25 10:04	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/30/25 10:04	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/30/25 10:04	1
Trichloroethene	ND		1.0		ug/L			07/30/25 10:04	1
Trichlorofluoromethane	ND		5.0		ug/L			07/30/25 10:04	1
Trihalomethanes, Total	ND		1.0		ug/L			07/30/25 10:04	1
Vinyl acetate	ND		10		ug/L			07/30/25 10:04	1
Vinyl chloride	ND		0.50		ug/L			07/30/25 10:04	1
Xylenes, Total	ND		1.0		ug/L			07/30/25 10:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*07/30/25 10:04*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*07/30/25 10:04*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*07/30/25 10:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*60 - 140*		*07/30/25 10:04*	*1*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*07/30/25 10:04*	*1*
Dibromofluoromethane	*97*		*60 - 140*		*07/30/25 10:04*	*1*
Toluene-d8 (Surr)	*107*		*60 - 140*		*07/30/25 10:04*	*1*

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50		ug/L			08/08/25 20:05	1
Gasoline Range Organics (C4-C12)	ND		50		ug/L			08/08/25 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*20 - 144*		*08/08/25 20:05*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163071-1
SDG: Well 14 Step

Client Sample ID: Trip Blank

Lab Sample ID: 380-163071-1
Matrix: Water

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		08/05/25 22:59	08/06/25 10:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*94*		*46 - 136*	*08/05/25 22:59*	*08/06/25 10:32*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*96*		*46 - 136*	*08/05/25 22:59*	*08/06/25 10:32*	*1*

Client Sample ID: Well 14 Step

Lab Sample ID: 380-163071-2
Matrix: Water

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			07/30/25 10:25	1
1,1,1-Trichloroethane	ND		1.0	ug/L			07/30/25 10:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			07/30/25 10:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	ug/L			07/30/25 10:25	1
1,1,2-Trichloroethane	ND		1.0	ug/L			07/30/25 10:25	1
1,1-Dichloroethane	ND		1.0	ug/L			07/30/25 10:25	1
1,1-Dichloroethene	ND		1.0	ug/L			07/30/25 10:25	1
1,1-Dichloropropene	ND		1.0	ug/L			07/30/25 10:25	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			07/30/25 10:25	1
1,2,3-Trichloropropane	ND		5.0	ug/L			07/30/25 10:25	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			07/30/25 10:25	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			07/30/25 10:25	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			07/30/25 10:25	1
1,2-Dibromoethane	ND		1.0	ug/L			07/30/25 10:25	1
1,2-Dichlorobenzene	ND		1.0	ug/L			07/30/25 10:25	1
1,2-Dichloroethane	ND		0.50	ug/L			07/30/25 10:25	1
1,2-Dichloroethene, Total	ND		1.0	ug/L			07/30/25 10:25	1
1,2-Dichloropropane	ND		1.0	ug/L			07/30/25 10:25	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			07/30/25 10:25	1
1,3-Dichlorobenzene	ND		1.0	ug/L			07/30/25 10:25	1
1,3-Dichloropropane	ND		1.0	ug/L			07/30/25 10:25	1
1,3-Dichloropropene, Total	ND		0.50	ug/L			07/30/25 10:25	1
1,4-Dichlorobenzene	ND		1.0	ug/L			07/30/25 10:25	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10	ug/L			07/30/25 10:25	1
2,2-Dichloropropane	ND		1.0	ug/L			07/30/25 10:25	1
2-Butanone	ND		10	ug/L			07/30/25 10:25	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			07/30/25 10:25	1
2-Chlorotoluene	ND		1.0	ug/L			07/30/25 10:25	1
2-Hexanone	ND		10	ug/L			07/30/25 10:25	1
4-Chlorotoluene	ND		1.0	ug/L			07/30/25 10:25	1
4-Methyl-2-pentanone	ND		10	ug/L			07/30/25 10:25	1
Acetone	ND		12	ug/L			07/30/25 10:25	1
Acrolein	ND		5.0	ug/L			07/30/25 10:25	1
Acrylonitrile	ND		2.0	ug/L			07/30/25 10:25	1
Benzene	ND		0.50	ug/L			07/30/25 10:25	1
Bromobenzene	ND		1.0	ug/L			07/30/25 10:25	1
Bromochloromethane	ND		1.0	ug/L			07/30/25 10:25	1
Bromodichloromethane	ND		1.0	ug/L			07/30/25 10:25	1

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163071-2

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0		ug/L			07/30/25 10:25	1
Bromomethane	ND		5.0		ug/L			07/30/25 10:25	1
Carbon disulfide	ND		10		ug/L			07/30/25 10:25	1
Carbon tetrachloride	ND		0.50		ug/L			07/30/25 10:25	1
Chlorobenzene	ND		1.0		ug/L			07/30/25 10:25	1
Chloroethane	ND		1.0		ug/L			07/30/25 10:25	1
Chloroform	ND		1.0		ug/L			07/30/25 10:25	1
Chloromethane	ND		1.0		ug/L			07/30/25 10:25	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/30/25 10:25	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/30/25 10:25	1
Dibromochloromethane	ND		1.0		ug/L			07/30/25 10:25	1
Dibromomethane	ND		1.0		ug/L			07/30/25 10:25	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/30/25 10:25	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/30/25 10:25	1
Ethanol	ND		100		ug/L			07/30/25 10:25	1
Ethylbenzene	ND		1.0		ug/L			07/30/25 10:25	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			07/30/25 10:25	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/30/25 10:25	1
Isopropanol	ND		50		ug/L			07/30/25 10:25	1
Isopropylbenzene	ND		1.0		ug/L			07/30/25 10:25	1
m,p-Xylene	ND		1.0		ug/L			07/30/25 10:25	1
Methylene Chloride	ND		2.0		ug/L			07/30/25 10:25	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			07/30/25 10:25	1
Naphthalene	ND		10		ug/L			07/30/25 10:25	1
n-Butylbenzene	ND		1.0		ug/L			07/30/25 10:25	1
N-Propylbenzene	ND		1.0		ug/L			07/30/25 10:25	1
o-Xylene	ND		1.0		ug/L			07/30/25 10:25	1
p-Isopropyltoluene	ND		1.0		ug/L			07/30/25 10:25	1
sec-Butylbenzene	ND		1.0		ug/L			07/30/25 10:25	1
Styrene	ND		1.0		ug/L			07/30/25 10:25	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			07/30/25 10:25	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			07/30/25 10:25	1
tert-Butylbenzene	ND		1.0		ug/L			07/30/25 10:25	1
Tetrachloroethene	ND		1.0		ug/L			07/30/25 10:25	1
Tetrahydrofuran	ND		10		ug/L			07/30/25 10:25	1
Toluene	ND		1.0		ug/L			07/30/25 10:25	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/30/25 10:25	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/30/25 10:25	1
Trichloroethene	ND		1.0		ug/L			07/30/25 10:25	1
Trichlorofluoromethane	ND		5.0		ug/L			07/30/25 10:25	1
Trihalomethanes, Total	ND		1.0		ug/L			07/30/25 10:25	1
Vinyl acetate	ND		10		ug/L			07/30/25 10:25	1
Vinyl chloride	ND		0.50		ug/L			07/30/25 10:25	1
Xylenes, Total	ND		1.0		ug/L			07/30/25 10:25	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*07/30/25 10:25*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*07/30/25 10:25*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*07/30/25 10:25*	*1*

Client Sample ID: Well 14 Step

Lab Sample ID: 380-163071-2

Date Collected: 07/28/25 09:30
Matrix: Water
Date Received: 07/29/25 09:56

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*60 - 140*		*07/30/25 10:25*	*1*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*07/30/25 10:25*	*1*
Dibromofluoromethane	*99*		*60 - 140*		*07/30/25 10:25*	*1*
Toluene-d8 (Surr)	*107*		*60 - 140*		*07/30/25 10:25*	*1*

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			08/08/25 22:32	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			08/08/25 22:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*20 - 144*		*08/08/25 22:32*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		08/05/25 22:59	08/06/25 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*91*		*46 - 136*	*08/05/25 22:59*	*08/06/25 10:49*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*95*		*46 - 136*	*08/05/25 22:59*	*08/06/25 10:49*	*1*

Method: SW846 8015C - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13	mg/L		08/07/25 13:07	08/08/25 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*47*		*10 - 130*	*08/07/25 13:07*	*08/08/25 00:04*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic (SM 5310C)	ND		1.0	mg/L			08/25/25 20:09	2

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163071-1
SDG: Well 14 Step

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
380-163071-1	Trip Blank	96	103	97	107
380-163071-2	Well 14 Step	98	100	99	107
LCS 570-604359/1003	Lab Control Sample	100	97	95	99
LCSD 570-604359/4	Lab Control Sample Dup	102	97	98	101
MB 570-604359/7	Method Blank	96	103	97	107

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(20-144)
380-163071-1	Trip Blank	88
380-163071-2	Well 14 Step	90
LCS 570-608950/3	Lab Control Sample	94
LCSD 570-608950/4	Lab Control Sample Dup	95
MB 570-608950/5	Method Blank	89

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
380-163071-1	Trip Blank	94	96
380-163071-2	Well 14 Step	91	95
LCS 410-681293/2-A	Lab Control Sample	97	101
LCSD 410-681293/3-A	Lab Control Sample Dup	96	98
MB 410-681293/1-A	Method Blank	100	101

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Glycols- Direct Injection (GC/FID)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		14BD1
Lab Sample ID	Client Sample ID	(10-130)
380-163071-2	Well 14 Step	47
LCS 410-682293/2-A	Lab Control Sample	86
MB 410-682293/1-A	Method Blank	77

Surrogate Legend

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163071-1
SDG: Well 14 Step

14BD = 1,4-Butanediol

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-604359/7
Matrix: Water
Analysis Batch: 604359

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/30/25 09:42	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/30/25 09:42	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/30/25 09:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/30/25 09:42	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/30/25 09:42	1
1,1-Dichloroethane	ND		1.0		ug/L			07/30/25 09:42	1
1,1-Dichloroethene	ND		1.0		ug/L			07/30/25 09:42	1
1,1-Dichloropropene	ND		1.0		ug/L			07/30/25 09:42	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/30/25 09:42	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/30/25 09:42	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/30/25 09:42	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/30/25 09:42	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/30/25 09:42	1
1,2-Dibromoethane	ND		1.0		ug/L			07/30/25 09:42	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/30/25 09:42	1
1,2-Dichloroethane	ND		0.50		ug/L			07/30/25 09:42	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/30/25 09:42	1
1,2-Dichloropropane	ND		1.0		ug/L			07/30/25 09:42	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/30/25 09:42	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/30/25 09:42	1
1,3-Dichloropropane	ND		1.0		ug/L			07/30/25 09:42	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/30/25 09:42	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/30/25 09:42	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/30/25 09:42	1
2,2-Dichloropropane	ND		1.0		ug/L			07/30/25 09:42	1
2-Butanone	ND		10		ug/L			07/30/25 09:42	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			07/30/25 09:42	1
2-Chlorotoluene	ND		1.0		ug/L			07/30/25 09:42	1
2-Hexanone	ND		10		ug/L			07/30/25 09:42	1
4-Chlorotoluene	ND		1.0		ug/L			07/30/25 09:42	1
4-Methyl-2-pentanone	ND		10		ug/L			07/30/25 09:42	1
Acetone	ND		12		ug/L			07/30/25 09:42	1
Acrolein	ND		5.0		ug/L			07/30/25 09:42	1
Acrylonitrile	ND		2.0		ug/L			07/30/25 09:42	1
Benzene	ND		0.50		ug/L			07/30/25 09:42	1
Bromobenzene	ND		1.0		ug/L			07/30/25 09:42	1
Bromochloromethane	ND		1.0		ug/L			07/30/25 09:42	1
Bromodichloromethane	ND		1.0		ug/L			07/30/25 09:42	1
Bromoform	ND		1.0		ug/L			07/30/25 09:42	1
Bromomethane	ND		5.0		ug/L			07/30/25 09:42	1
Carbon disulfide	ND		10		ug/L			07/30/25 09:42	1
Carbon tetrachloride	ND		0.50		ug/L			07/30/25 09:42	1
Chlorobenzene	ND		1.0		ug/L			07/30/25 09:42	1
Chloroethane	ND		1.0		ug/L			07/30/25 09:42	1
Chloroform	ND		1.0		ug/L			07/30/25 09:42	1
Chloromethane	ND		1.0		ug/L			07/30/25 09:42	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/30/25 09:42	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/30/25 09:42	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-604359/7
Matrix: Water
Analysis Batch: 604359

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0		ug/L			07/30/25 09:42	1
Dibromomethane	ND		1.0		ug/L			07/30/25 09:42	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/30/25 09:42	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/30/25 09:42	1
Ethanol	ND		100		ug/L			07/30/25 09:42	1
Ethylbenzene	ND		1.0		ug/L			07/30/25 09:42	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			07/30/25 09:42	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/30/25 09:42	1
Isopropanol	ND		50		ug/L			07/30/25 09:42	1
Isopropylbenzene	ND		1.0		ug/L			07/30/25 09:42	1
m,p-Xylene	ND		1.0		ug/L			07/30/25 09:42	1
Methylene Chloride	ND		2.0		ug/L			07/30/25 09:42	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			07/30/25 09:42	1
Naphthalene	ND		10		ug/L			07/30/25 09:42	1
n-Butylbenzene	ND		1.0		ug/L			07/30/25 09:42	1
N-Propylbenzene	ND		1.0		ug/L			07/30/25 09:42	1
o-Xylene	ND		1.0		ug/L			07/30/25 09:42	1
p-Isopropyltoluene	ND		1.0		ug/L			07/30/25 09:42	1
sec-Butylbenzene	ND		1.0		ug/L			07/30/25 09:42	1
Styrene	ND		1.0		ug/L			07/30/25 09:42	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			07/30/25 09:42	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			07/30/25 09:42	1
tert-Butylbenzene	ND		1.0		ug/L			07/30/25 09:42	1
Tetrachloroethene	ND		1.0		ug/L			07/30/25 09:42	1
Tetrahydrofuran	ND		10		ug/L			07/30/25 09:42	1
Toluene	ND		1.0		ug/L			07/30/25 09:42	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/30/25 09:42	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/30/25 09:42	1
Trichloroethene	ND		1.0		ug/L			07/30/25 09:42	1
Trichlorofluoromethane	ND		5.0		ug/L			07/30/25 09:42	1
Trihalomethanes, Total	ND		1.0		ug/L			07/30/25 09:42	1
Vinyl acetate	ND		10		ug/L			07/30/25 09:42	1
Vinyl chloride	ND		0.50		ug/L			07/30/25 09:42	1
Xylenes, Total	ND		1.0		ug/L			07/30/25 09:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*60 - 140*		*07/30/25 09:42*	*1*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*07/30/25 09:42*	*1*
Dibromofluoromethane	*97*		*60 - 140*		*07/30/25 09:42*	*1*
Toluene-d8 (Surr)	*107*		*60 - 140*		*07/30/25 09:42*	*1*

Lab Sample ID: LCS 570-604359/1003
Matrix: Water
Analysis Batch: 604359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	18.8		ug/L		94	60 - 140
1,1,1-Trichloroethane	20.0	19.4		ug/L		97	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-604359/1003
Matrix: Water
Analysis Batch: 604359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2,2-Tetrachloroethane	20.0	20.7		ug/L		104	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.8		ug/L		94	60 - 140
1,1,2-Trichloroethane	20.0	19.9		ug/L		99	70 - 130
1,1-Dichloroethane	20.0	18.7		ug/L		94	70 - 130
1,1-Dichloroethene	20.0	19.0		ug/L		95	50 - 150
1,1-Dichloropropene	20.0	20.1		ug/L		101	60 - 140
1,2,3-Trichlorobenzene	20.0	22.0		ug/L		110	60 - 140
1,2,3-Trichloropropane	20.0	20.9		ug/L		104	60 - 140
1,2,4-Trichlorobenzene	20.0	21.4		ug/L		107	60 - 140
1,2,4-Trimethylbenzene	20.0	20.2		ug/L		101	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	20.3		ug/L		101	60 - 140
1,2-Dibromoethane	20.0	20.4		ug/L		102	60 - 140
1,2-Dichlorobenzene	20.0	20.5		ug/L		103	65 - 135
1,2-Dichloroethane	20.0	19.4		ug/L		97	70 - 130
1,2-Dichloropropane	20.0	20.8		ug/L		104	35 - 165
1,3,5-Trimethylbenzene	20.0	20.4		ug/L		102	60 - 140
1,3-Dichlorobenzene	20.0	20.0		ug/L		100	70 - 130
1,3-Dichloropropane	20.0	20.8		ug/L		104	60 - 140
1,4-Dichlorobenzene	20.0	19.5		ug/L		98	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	18.3		ug/L		91	60 - 140
2,2-Dichloropropane	20.0	20.2		ug/L		101	60 - 140
2-Butanone	20.0	20.0		ug/L		100	60 - 140
2-Chloroethyl vinyl ether	20.0	21.4		ug/L		107	1 - 225
2-Chlorotoluene	20.0	19.5		ug/L		97	60 - 140
2-Hexanone	20.0	23.8		ug/L		119	60 - 140
4-Chlorotoluene	20.0	19.8		ug/L		99	60 - 140
4-Methyl-2-pentanone	20.0	25.7		ug/L		128	60 - 140
Acetone	20.0	19.3		ug/L		97	60 - 140
Acrolein	40.0	32.9		ug/L		82	60 - 140
Acrylonitrile	20.0	20.9		ug/L		105	60 - 140
Benzene	20.0	20.5		ug/L		103	65 - 135
Bromobenzene	20.0	20.3		ug/L		102	60 - 140
Bromochloromethane	20.0	19.9		ug/L		99	60 - 140
Bromodichloromethane	20.0	20.2		ug/L		101	65 - 135
Bromoform	20.0	20.2		ug/L		101	70 - 130
Bromomethane	20.0	15.9		ug/L		80	15 - 185
Carbon disulfide	20.0	17.8		ug/L		89	60 - 140
Carbon tetrachloride	20.0	20.8		ug/L		104	70 - 130
Chlorobenzene	20.0	19.7		ug/L		99	65 - 135
Chloroethane	20.0	17.3		ug/L		87	40 - 160
Chloroform	20.0	18.2		ug/L		91	70 - 135
Chloromethane	20.0	15.5		ug/L		77	1 - 205
cis-1,2-Dichloroethene	20.0	19.3		ug/L		97	60 - 140
cis-1,3-Dichloropropene	20.0	20.9		ug/L		105	25 - 175
Dibromochloromethane	20.0	19.6		ug/L		98	70 - 135
Dibromomethane	20.0	20.3		ug/L		101	60 - 140
Dichlorodifluoromethane	20.0	16.8		ug/L		84	60 - 140
Di-isopropyl ether (DIPE)	20.0	19.4		ug/L		97	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-604359/1003
Matrix: Water
Analysis Batch: 604359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethanol	200	189		ug/L		94	60 - 140
Ethylbenzene	20.0	19.8		ug/L		99	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	19.3		ug/L		96	60 - 140
Hexachloro-1,3-butadiene	20.0	19.8		ug/L		99	60 - 140
Isopropanol	100	112		ug/L		112	60 - 140
Isopropylbenzene	20.0	19.5		ug/L		98	60 - 140
m,p-Xylene	40.0	39.1		ug/L		98	60 - 140
Methylene Chloride	20.0	19.1		ug/L		95	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	21.1		ug/L		105	60 - 140
Naphthalene	20.0	19.6		ug/L		98	60 - 140
n-Butylbenzene	20.0	20.6		ug/L		103	60 - 140
N-Propylbenzene	20.0	19.8		ug/L		99	60 - 140
o-Xylene	20.0	20.0		ug/L		100	60 - 140
p-Isopropyltoluene	20.0	20.4		ug/L		102	60 - 140
sec-Butylbenzene	20.0	19.9		ug/L		99	60 - 140
Styrene	20.0	20.2		ug/L		101	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	20.7		ug/L		103	60 - 140
tert-Butyl alcohol (TBA)	100	89.5		ug/L		90	60 - 140
tert-Butylbenzene	20.0	20.3		ug/L		101	60 - 140
Tetrachloroethene	20.0	19.7		ug/L		99	70 - 130
Tetrahydrofuran	20.0	23.5		ug/L		117	60 - 140
Toluene	20.0	19.8		ug/L		99	70 - 130
trans-1,2-Dichloroethene	20.0	19.0		ug/L		95	70 - 130
trans-1,3-Dichloropropene	20.0	20.4		ug/L		102	50 - 150
Trichloroethene	20.0	20.3		ug/L		102	65 - 135
Trichlorofluoromethane	20.0	18.6		ug/L		93	50 - 150
Vinyl acetate	20.0	21.1		ug/L		106	60 - 140
Vinyl chloride	20.0	19.7		ug/L		99	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*60 - 140*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*
Dibromofluoromethane	*95*		*60 - 140*
Toluene-d8 (Surr)	*99*		*60 - 140*

Lab Sample ID: LCSD 570-604359/4
Matrix: Water
Analysis Batch: 604359

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	18.4		ug/L		92	60 - 140	2	30
1,1,1-Trichloroethane	20.0	19.4		ug/L		97	70 - 130	0	36
1,1,2,2-Tetrachloroethane	20.0	20.6		ug/L		103	60 - 140	1	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	18.4		ug/L		92	60 - 140	2	30
1,1,2-Trichloroethane	20.0	19.0		ug/L		95	70 - 130	5	45
1,1-Dichloroethane	20.0	18.9		ug/L		94	70 - 130	1	40
1,1-Dichloroethene	20.0	19.0		ug/L		95	50 - 150	0	32
1,1-Dichloropropene	20.0	19.6		ug/L		98	60 - 140	3	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-604359/4
Matrix: Water
Analysis Batch: 604359

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,3-Trichlorobenzene	20.0	22.0		ug/L		110	60 - 140	0	30
1,2,3-Trichloropropane	20.0	20.8		ug/L		104	60 - 140	1	30
1,2,4-Trichlorobenzene	20.0	21.8		ug/L		109	60 - 140	2	30
1,2,4-Trimethylbenzene	20.0	20.4		ug/L		102	60 - 140	1	30
1,2-Dibromo-3-Chloropropane	20.0	21.2		ug/L		106	60 - 140	4	30
1,2-Dibromoethane	20.0	20.2		ug/L		101	60 - 140	1	30
1,2-Dichlorobenzene	20.0	20.4		ug/L		102	65 - 135	0	57
1,2-Dichloroethane	20.0	20.0		ug/L		100	70 - 130	3	49
1,2-Dichloropropane	20.0	20.7		ug/L		104	35 - 165	0	55
1,3,5-Trimethylbenzene	20.0	19.6		ug/L		98	60 - 140	4	30
1,3-Dichlorobenzene	20.0	19.9		ug/L		100	70 - 130	0	43
1,3-Dichloropropane	20.0	20.0		ug/L		100	60 - 140	4	30
1,4-Dichlorobenzene	20.0	19.8		ug/L		99	65 - 135	1	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	18.4		ug/L		92	60 - 140	1	30
2,2-Dichloropropane	20.0	20.0		ug/L		100	60 - 140	1	30
2-Butanone	20.0	22.3		ug/L		112	60 - 140	11	30
2-Chloroethyl vinyl ether	20.0	21.5		ug/L		108	1 - 225	0	71
2-Chlorotoluene	20.0	19.4		ug/L		97	60 - 140	1	30
2-Hexanone	20.0	23.9		ug/L		119	60 - 140	0	30
4-Chlorotoluene	20.0	19.8		ug/L		99	60 - 140	0	30
4-Methyl-2-pentanone	20.0	25.7		ug/L		129	60 - 140	0	30
Acetone	20.0	19.3		ug/L		97	60 - 140	0	30
Acrolein	40.0	33.3		ug/L		83	60 - 140	1	60
Acrylonitrile	20.0	21.1		ug/L		106	60 - 140	1	60
Benzene	20.0	20.0		ug/L		100	65 - 135	3	61
Bromobenzene	20.0	19.8		ug/L		99	60 - 140	2	30
Bromochloromethane	20.0	20.1		ug/L		100	60 - 140	1	30
Bromodichloromethane	20.0	20.4		ug/L		102	65 - 135	1	56
Bromoform	20.0	20.2		ug/L		101	70 - 130	0	42
Bromomethane	20.0	17.0		ug/L		85	15 - 185	7	61
Carbon disulfide	20.0	17.7		ug/L		88	60 - 140	0	30
Carbon tetrachloride	20.0	20.8		ug/L		104	70 - 130	0	41
Chlorobenzene	20.0	19.5		ug/L		98	65 - 135	1	53
Chloroethane	20.0	17.0		ug/L		85	40 - 160	2	78
Chloroform	20.0	18.5		ug/L		92	70 - 135	1	30
Chloromethane	20.0	17.3		ug/L		86	1 - 205	11	60
cis-1,2-Dichloroethene	20.0	18.9		ug/L		95	60 - 140	2	30
cis-1,3-Dichloropropene	20.0	21.1		ug/L		106	25 - 175	1	58
Dibromochloromethane	20.0	19.1		ug/L		96	70 - 135	3	50
Dibromomethane	20.0	20.4		ug/L		102	60 - 140	1	30
Dichlorodifluoromethane	20.0	16.4		ug/L		82	60 - 140	2	30
Di-isopropyl ether (DIPE)	20.0	19.4		ug/L		97	60 - 140	0	30
Ethanol	200	168		ug/L		84	60 - 140	11	30
Ethylbenzene	20.0	19.2		ug/L		96	60 - 140	3	63
Ethyl-t-butyl ether (ETBE)	20.0	19.2		ug/L		96	60 - 140	1	30
Hexachloro-1,3-butadiene	20.0	19.8		ug/L		99	60 - 140	0	30
Isopropanol	100	107		ug/L		107	60 - 140	4	30
Isopropylbenzene	20.0	19.1		ug/L		96	60 - 140	2	30
m,p-Xylene	40.0	38.0		ug/L		95	60 - 140	3	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-604359/4
Matrix: Water
Analysis Batch: 604359

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methylene Chloride	20.0	19.1		ug/L		96	60 - 140	0	28
Methyl-t-Butyl Ether (MTBE)	20.0	21.4		ug/L		107	60 - 140	1	30
Naphthalene	20.0	20.1		ug/L		101	60 - 140	3	30
n-Butylbenzene	20.0	20.4		ug/L		102	60 - 140	1	30
N-Propylbenzene	20.0	19.3		ug/L		96	60 - 140	3	30
o-Xylene	20.0	19.7		ug/L		98	60 - 140	2	30
p-Isopropyltoluene	20.0	20.1		ug/L		100	60 - 140	2	30
sec-Butylbenzene	20.0	19.8		ug/L		99	60 - 140	0	30
Styrene	20.0	19.4		ug/L		97	60 - 140	4	30
Tert-amyl-methyl ether (TAME)	20.0	20.8		ug/L		104	60 - 140	1	30
tert-Butyl alcohol (TBA)	100	98.3		ug/L		98	60 - 140	9	30
tert-Butylbenzene	20.0	20.5		ug/L		103	60 - 140	1	30
Tetrachloroethene	20.0	18.3		ug/L		91	70 - 130	8	39
Tetrahydrofuran	20.0	22.4		ug/L		112	60 - 140	5	30
Toluene	20.0	19.5		ug/L		98	70 - 130	1	41
trans-1,2-Dichloroethene	20.0	18.8		ug/L		94	70 - 130	1	45
trans-1,3-Dichloropropene	20.0	20.4		ug/L		102	50 - 150	0	86
Trichloroethene	20.0	20.2		ug/L		101	65 - 135	0	48
Trichlorofluoromethane	20.0	18.1		ug/L		90	50 - 150	3	84
Vinyl acetate	20.0	21.4		ug/L		107	60 - 140	1	30
Vinyl chloride	20.0	19.5		ug/L		98	5 - 195	1	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*60 - 140*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*
Dibromofluoromethane	*98*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-608950/5
Matrix: Water
Analysis Batch: 608950

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			08/08/25 13:45	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			08/08/25 13:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*20 - 144*		*08/08/25 13:45*	*1*

Lab Sample ID: LCS 570-608950/3
Matrix: Water
Analysis Batch: 608950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	2000	1730		ug/L		86	71 - 120

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 570-608950/3
Matrix: Water
Analysis Batch: 608950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		20 - 144

Lab Sample ID: LCSD 570-608950/4
Matrix: Water
Analysis Batch: 608950

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2000	1700		ug/L		85	71 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		20 - 144

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-681293/1-A
Matrix: Water
Analysis Batch: 681439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 681293

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L		08/05/25 22:59	08/06/25 09:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr)	100		46 - 136	08/05/25 22:59	08/06/25 09:41	1
1,1,2,2-Tetrachloroethane (Surr)	101		46 - 136	08/05/25 22:59	08/06/25 09:41	1

Lab Sample ID: LCS 410-681293/2-A
Matrix: Water
Analysis Batch: 681439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681293

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene Dibromide			0.129	0.130		ug/L		101	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr)	97		46 - 136
1,1,2,2-Tetrachloroethane (Surr)	101		46 - 136

Lab Sample ID: LCSD 410-681293/3-A
Matrix: Water
Analysis Batch: 681439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 681293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide			0.129	0.124		ug/L		96	60 - 140	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr)	96		46 - 136
1,1,2,2-Tetrachloroethane (Surr)	98		46 - 136

Method: 8015C - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 410-682293/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 682408 — **Prep Batch: 682293**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13		mg/L		08/07/25 13:07	08/07/25 23:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*77*		*10 - 130*	*08/07/25 13:07*	*08/07/25 23:35*	*1*

Lab Sample ID: LCS 410-682293/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 682408 — **Prep Batch: 682293**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene glycol			99.8	89.4		mg/L		90	75 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Butanediol	*86*		*10 - 130*

Method: SM 5310C - TOC

Lab Sample ID: MB 570-616788/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616788

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic	ND		0.50		mg/L			08/25/25 12:38	1

Lab Sample ID: LCS 570-616788/8 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616788

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Carbon, Non-Purgable Organic			5.03	5.14		mg/L		102	85 - 115		

Lab Sample ID: LCSD 570-616788/9 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616788

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic			5.03	5.14		mg/L		102	85 - 115	0	15

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163071-1
SDG: Well 14 Step

GC/MS VOA

Analysis Batch: 604359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163071-1	Trip Blank	Total/NA	Water	624.1	
380-163071-2	Well 14 Step	Total/NA	Water	624.1	
MB 570-604359/7	Method Blank	Total/NA	Water	624.1	
LCS 570-604359/1003	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-604359/4	Lab Control Sample Dup	Total/NA	Water	624.1	

GC VOA

Analysis Batch: 608950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163071-1	Trip Blank	Total/NA	Water	8015B	
380-163071-2	Well 14 Step	Total/NA	Water	8015B	
MB 570-608950/5	Method Blank	Total/NA	Water	8015B	
LCS 570-608950/3	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-608950/4	Lab Control Sample Dup	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 681293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163071-1	Trip Blank	Total/NA	Water	8011	
380-163071-2	Well 14 Step	Total/NA	Water	8011	
MB 410-681293/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-681293/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-681293/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 681439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163071-1	Trip Blank	Total/NA	Water	8011	681293
380-163071-2	Well 14 Step	Total/NA	Water	8011	681293
MB 410-681293/1-A	Method Blank	Total/NA	Water	8011	681293
LCS 410-681293/2-A	Lab Control Sample	Total/NA	Water	8011	681293
LCSD 410-681293/3-A	Lab Control Sample Dup	Total/NA	Water	8011	681293

Prep Batch: 682293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163071-2	Well 14 Step	Total/NA	Water	8015 DAI Prep	
MB 410-682293/1-A	Method Blank	Total/NA	Water	8015 DAI Prep	
LCS 410-682293/2-A	Lab Control Sample	Total/NA	Water	8015 DAI Prep	

Analysis Batch: 682408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163071-2	Well 14 Step	Total/NA	Water	8015C	682293
MB 410-682293/1-A	Method Blank	Total/NA	Water	8015C	682293
LCS 410-682293/2-A	Lab Control Sample	Total/NA	Water	8015C	682293

General Chemistry

Analysis Batch: 616788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163071-2	Well 14 Step	Total/NA	Water	SM 5310C	
MB 570-616788/7	Method Blank	Total/NA	Water	SM 5310C	

General Chemistry (Continued)

Analysis Batch: 616788 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-616788/8	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 570-616788/9	Lab Control Sample Dup	Total/NA	Water	SM 5310C	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163071-1
SDG: Well 14 Step

Client Sample ID: Trip Blank

Lab Sample ID: 380-163071-1

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	604359	U1MC	EET CAL 4	07/30/25 10:04
Total/NA	Analysis	8015B		1	608950	A9VE	EET CAL 4	08/08/25 20:05
Total/NA	Prep	8011			681293	USL7	ELLE	08/05/25 22:59
Total/NA	Analysis	8011		1	681439	M6UH	ELLE	08/06/25 10:32

Client Sample ID: Well 14 Step

Lab Sample ID: 380-163071-2

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	604359	U1MC	EET CAL 4	07/30/25 10:25
Total/NA	Analysis	8015B		1	608950	A9VE	EET CAL 4	08/08/25 22:32
Total/NA	Prep	8011			681293	USL7	ELLE	08/05/25 22:59
Total/NA	Analysis	8011		1	681439	M6UH	ELLE	08/06/25 10:49
Total/NA	Prep	8015 DAI Prep			682293	WZ6J	ELLE	08/07/25 13:07
Total/NA	Analysis	8015C		1	682408	LXF2	ELLE	08/08/25 00:04
Total/NA	Analysis	SM 5310C		2	616788	U8XP	EET CAL 4	08/25/25 20:09

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163071-1
SDG: Well 14 Step

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-26
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	08-10-25
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA011	08-11-25
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	07-31-26
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163071-1
SDG: Well 14 Step

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CAL 4
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Glycols- Direct Injection (GC/FID)	SW846	ELLE
SM 5310C	TOC	SM	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
8011	Microextraction	SW846	ELLE
8015 DAI Prep	Preparation, Direct Aqueous Injection	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163071-1
SDG: Well 14 Step

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-163071-1	Trip Blank	Water	07/28/25 09:30	07/29/25 09:56	Hawaii
380-163071-2	Well 14 Step	Water	07/28/25 09:30	07/29/25 09:56	Hawaii

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone. 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler	Lab PM: Lopez, Maria	Carrier Tracking No(s).	COC No: 380-89100-26842 1
Client Contact: Jordan Moniuszko	Phone:	E-Mail: Maria Lopez@et.eurofinsus com	State of Origin.	Page: Page 1 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested.			
City: Kailua	TAT Requested (days):			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera.com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
N - None
S H2SO4
D - HNO3
A - HCL

380-163071 COC

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300_ORGFM_28D, SM2520_B	351.2 - Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900.0 - Gross Beta Only	903.0, 905_Sr90	904.0 - Radium-228	1640 - Al, As,Ba,Cd,Cr,Cu,Fe,Pb,Mn,Se,Sr,Ag,U,V	1631E - Mercury, Total	6010D - Ca,Fe, Li,Mg,K,Na	624.1 - (MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	608.3_PCB, 608 3_Pest, 625.1	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	S	S	S	D	D	D	D	N	A	N	A	N		
Trip Blank	7/25/25	9:30		Water														2		6	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date.	Time	Method of Shipment: FC 3915 1602 8351

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Jordan Moniuszko	7/25/25 2.00		[illegible]	7/28/25 0956	EEAP
Relinquished by	Date/Time:	Company	Received by	Date/Time	Company
Relinquished by	Date/Time:	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: 4.4-0.2 = 4.2 ice-partial (750f)

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler:	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No: 380-89100-26842.2
Client Contact: Jordan Moniuszko	Phone:	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin:	Page: Page 2 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested:			
City: Kailua	TAT Requested (days)			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			

Analysis Requested

Preservation Codes.
A - HCL
N - None
S - H2SO4

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_GRO - Gasoline Range Organics	8015B_DRO - DRO (C10-C28)	1664A - Oil & Grease	625.1_SIM_PREC - (MOD) Local Method	8011 - (MOD) Custom Analyte List	1633_Final - Standard List	8015C_DAI_GLY - (MOD) Custom Analyte List	Nitrogen,Total	8015B_DRO - Crude Oil (C7-C44)					Total Number of containers	Special Instructions/Note
				Preservation Code:			A	N	S	N	A	N	N	N	N						
trip blank	7/28/25	01.30		Water			2				2									6	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III, IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: FX

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Jordan Moniuszko	7/25/25 2:00		[illegible]	7/28/25 0956	EAP

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: 4.4-0.2=4.2 ice packing (7SDA)

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone. 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler:	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No: 380-89100-26842 5
Client Contact: Jordan Moniuszko	Phone:	E-Mail: Maria Lopez@et.eurofinsus.com	State of Origin:	Page: Page 5 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested			
City: Kailua	TAT Requested (days):			
State Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera.com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			

Analysis Requested

Preservation Codes.
N - None
S - H2SO4
D - HNO3
A - HCL
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300_ORGFM_28D, SM2520_B	351 2 - Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900 0 - Gross Beta Only	903.0, 905_Sr90	904.0 - Radium-228	1640 - Al, As,Ba,Cd,Cr,Cu,Fe,Pb,Mn,Se,Sr,Ag,U,V	1631E - Mercury, Total	6010D - Ca,Fe, Li,Mg,K,Na	624 1 - (MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	608 3_PCB, 608.3_Pest, 625.1	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	S	S	D	D	D	D	N	A	N	A	N		
Well 141 Step	7/28/25	9:30	G	Water						3								3		2	
				Water																	
				Water																	

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)** ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested I II III IV Other (specify)		Special Instructions/QC Requirements.	
Empty Kit Relinquished by:	Date:	Time	Method of Shipment: FX

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jordan Moniuszko	7/28/25 7:00			7/28/25 0956	EEAP

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 4.4-0.2 = 4.2 ice partial (730f)

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone. 626-386-1100

Chain of Custody Record

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Client Information	Sampler:	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No: 380-89100-26842 6
Client Contact: Jordan Moniuszko	Phone:	E-Mail: Maria Lopez@et.eurofinsus.com	State of Origin:	Page: Page 6 of 6
Company: INTERA Inc	PWSID:			Job #:
Address: 74 Kihapai Steet	Due Date Requested			
City: Kailua	TAT Requested (days):			
State Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0625210043			
Email: jmoniuszko@intera.com	WO #:			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site:	SSOW#:			

Analysis Requested

Preservation Codes.
A - HCL
N - None
S - H2SO4

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_GRO - Gasoline Range Organics	8015B_DRO - DRO (C10-C28)	1664A - Oil & Grease	625.1_SIM_PREC - (MOD) Local Method	8011 - (MOD) Custom Analyte List LDB	1633_Final - Standard List	8015C_DAI_GLY - (MOD) Custom Analyte List	Nitrogen,Total	8015B_DRO - Crude Oil (C7-C44)					Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	S	N	A	N	N	N	N						
WCII 14 Step	7/28/25	9-30	G	Water			2				2		2							12	
				Water																	
				Water																	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested I II III, IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time	Method of Shipment: FX

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Jordan Moniuszko	7/28/25 2.00		[illegible]	7/29/25 0956	EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time.	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks. 4.4-0.2=4.2 i/r -partial (750A)

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-236020.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-163071-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/25/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: ~~717-656-2300(Tel)~~	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Trip Blank (380-163071-1)	7/28/25	09:30 Hawaiian	G	Water			X		4	High TDS sample, dilute accordingly
Well 14 Step (380-163071-2)	7/28/25	09:30 Hawaiian	G	Water			X	X	4	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:	
Relinquished by:	Date/Time: 7.30.25 8:20	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time: 07/31/25 0950	Company ELLE
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: R 1.7 / C 1.7			

Ver: 10/10/2024

8/27/2025

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Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

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Loc: 380
163071

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-235756.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-163071-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/25/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	8015B_GRO/5030C(MOD) Gasoline Range Organics	5310CTOC, Standard analysis, 3 replicates	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Trip Blank (380-163071-1)	7/28/25	09:30 Hawaiian	G	Water			X	X		3	High TDS sample, dilute accordingly
Well 14 Step (380-163071-2)	7/28/25	09:30 Hawaiian	G	Water			X	X	X	8	High TDS sample, dilute accordingly

380-163071 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Mark Urrutia	7/29/25 1602	EEHP		7-29-25 1602	UP
	7-29-25 1658	UP		7/29/25 1658	EC

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.2/2.5 SC6

Ver: 10/10/2024

8/27/2025

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163071-1
SDG Number: Well 14 Step

Login Number: 163071
List Number: 1
Creator: Sanchez Velasquez, Gustavo

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163071-1
SDG Number: Well 14 Step

Login Number: 163071
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 07/29/25 05:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163071-1
SDG Number: Well 14 Step

Login Number: 163071
List Number: 3
Creator: Perez, Alexander

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 07/31/25 05:10 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 8/10/2025 3:10:34 PM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 14 Step

JOB NUMBER

380-163078-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

Generated
8/10/2025 3:10:34 PM

Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Isotope Dilution Summary 9
QC Sample Results 10
QC Association Summary 16
Lab Chronicle 17
Certification Summary 18
Method Summary 19
Sample Summary 20
Chain of Custody 21
Receipt Checklists 23

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-163078-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 7/29/2025 9:56 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C.

PFAS
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163078-1
SDG: Well 14 Step

Client Sample ID: Well 14 Step

Lab Sample ID: 380-163078-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	2.1		1.7		ng/L	1		1633	Total/NA
Perfluorobutanoic acid (PFBA)	3.6		3.4		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.2		1.7		ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		1.7		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.8		1.7		ng/L	1		1633	Total/NA
Perfluoropentanoic acid (PFPeA)	3.5		1.7		ng/L	1		1633	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163078-1
SDG: Well 14 Step

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163078-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.4		ng/L		08/04/25 04:34	08/06/25 08:03	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.4		ng/L		08/04/25 04:34	08/06/25 08:03	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.4		ng/L		08/04/25 04:34	08/06/25 08:03	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.4		ng/L		08/04/25 04:34	08/06/25 08:03	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.4		ng/L		08/04/25 04:34	08/06/25 08:03	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.4		ng/L		08/04/25 04:34	08/06/25 08:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.3		ng/L		08/04/25 04:34	08/06/25 08:03	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.4		ng/L		08/04/25 04:34	08/06/25 08:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.4		ng/L		08/04/25 04:34	08/06/25 08:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorobutanesulfonic acid (PFBS)	**2.1**		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorobutanoic acid (PFBA)	**3.6**		3.4		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorohexanesulfonic acid (PFHxS)	**8.2**		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorohexanoic acid (PFHxA)	**2.3**		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163078-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorooctanesulfonic acid (PFOS)	**6.8**		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluoropentanoic acid (PFPeA)	**3.5**		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		08/04/25 04:34	08/06/25 08:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*100*		*40 - 200*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C2 6:2 FTS	*88.5*		*40 - 200*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C2 8:2 FTS	*80.5*		*40 - 300*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C2 PFDoA	*85.3*		*10 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C2 PFTeDA	*76.4*		*10 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C3 HFPO-DA	*85.1*		*40 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C3 PFBS	*93.1*		*40 - 135*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C3 PFHxS	*108*		*40 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C4 PFBA	*91.6*		*5 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C4 PFHpA	*84.3*		*40 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C5 PFHxA	*94.7*		*40 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C5 PFPeA	*77.6*		*40 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C6 PFDA	*97.1*		*40 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C7 PFUnA	*103*		*30 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C8 FOSA	*78.2*		*40 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C8 PFOA	*96.7*		*40 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C8 PFOS	*94.9*		*40 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
13C9 PFNA	*83.6*		*40 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
d3-NMeFOSAA	*71.8*		*40 - 170*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
d3-NMePFOSA	*67.9*		*10 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
d5-NEtFOSAA	*71.3*		*25 - 135*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
d5-NEtPFOSA	*63.5*		*10 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
d7-N-MeFOSE-M	*64.2*		*10 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*
d9-N-EtFOSE-M	*64.9*		*10 - 130*	*08/04/25 04:34*	*08/06/25 08:03*	*1*

Isotope Dilution Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163078-1
SDG: Well 14 Step

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	PFDoA	PFTDA	HFPODA	C3PFBS	C3PFHS
Lab Sample ID	Client Sample ID	(40-200)	(40-200)	(40-300)	(10-130)	(10-130)	(40-130)	(40-135)	(40-130)
380-163078-1	Well 14 Step	100	88.5	80.5	85.3	76.4	85.1	93.1	108
LCS 320-867567/3-A	Lab Control Sample	109	97.9	95.8	91.0	81.1	89.9	96.3	107
LLCS 320-867567/2-A	Lab Control Sample	112	97.3	91.4	82.8	72.4	86.1	93.6	103
MB 320-867567/1-A	Method Blank	100	91.9	93.9	86.1	78.3	83.7	95.1	103

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	C4PFHA	13C5PHA	PFPeA	C6PFDA	13C7PUA	PFOSA	C8PFOA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)	(40-130)	(40-130)
380-163078-1	Well 14 Step	91.6	84.3	94.7	77.6	97.1	103	78.2	96.7
LCS 320-867567/3-A	Lab Control Sample	93.0	93.6	94.5	84.3	95.7	101	75.7	88.0
LLCS 320-867567/2-A	Lab Control Sample	90.3	86.3	95.5	89.8	97.7	98.5	77.2	89.7
MB 320-867567/1-A	Method Blank	90.5	88.0	96.3	89.3	94.1	96.4	76.3	90.7

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C8PFOS	C9PFNA	d3NMFOS	d3NMFSA	d5NEFOS	d5NPFSA	NMFM	NEFM
Lab Sample ID	Client Sample ID	(40-130)	(40-130)	(40-170)	(10-130)	(25-135)	(10-130)	(10-130)	(10-130)
380-163078-1	Well 14 Step	94.9	83.6	71.8	67.9	71.3	63.5	64.2	64.9
LCS 320-867567/3-A	Lab Control Sample	89.2	84.2	82.7	70.3	86.1	65.0	71.1	71.4
LLCS 320-867567/2-A	Lab Control Sample	89.2	88.8	86.4	67.7	84.7	62.0	69.3	67.0
MB 320-867567/1-A	Method Blank	89.7	86.5	86.6	66.7	88.5	62.1	62.1	65.5

Surrogate Legend

M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
HFPODA = 13C3 HFPO-DA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
13C5PHA = 13C5 PFHxA
PFPeA = 13C5 PFPeA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
C9PFNA = 13C9 PFNA
d3NMFOS = d3-NMeFOSAA
d3NMFSA = d3-NMePFOSA
d5NEFOS = d5-NEtFOSAA
d5NPFSA = d5-NEtPFOSA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 320-867567/1-A
Matrix: Water
Analysis Batch: 868467

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 867567

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10		ng/L		08/04/25 04:34	08/07/25 13:21	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10		ng/L		08/04/25 04:34	08/07/25 13:21	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5		ng/L		08/04/25 04:34	08/07/25 13:21	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10		ng/L		08/04/25 04:34	08/07/25 13:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10		ng/L		08/04/25 04:34	08/07/25 13:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		08/04/25 04:34	08/07/25 13:21	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 320-867567/1-A
Matrix: Water
Analysis Batch: 868467

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 867567

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorooctanoic acid (PFOA)	ND		2.0	ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	ng/L		08/04/25 04:34	08/07/25 13:21	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	ng/L		08/04/25 04:34	08/07/25 13:21	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*100*		*40 - 200*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C2 6:2 FTS	*91.9*		*40 - 200*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C2 8:2 FTS	*93.9*		*40 - 300*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C2 PFDoA	*86.1*		*10 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C2 PFTeDA	*78.3*		*10 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C3 HFPO-DA	*83.7*		*40 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C3 PFBS	*95.1*		*40 - 135*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C3 PFHxS	*103*		*40 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C4 PFBA	*90.5*		*5 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C4 PFHpA	*88.0*		*40 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C5 PFHxA	*96.3*		*40 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C5 PFPeA	*89.3*		*40 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C6 PFDA	*94.1*		*40 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C7 PFUnA	*96.4*		*30 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C8 FOSA	*76.3*		*40 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C8 PFOA	*90.7*		*40 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C8 PFOS	*89.7*		*40 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
13C9 PFNA	*86.5*		*40 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
d3-NMeFOSAA	*86.6*		*40 - 170*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
d3-NMePFOSA	*66.7*		*10 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
d5-NEtFOSAA	*88.5*		*25 - 135*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
d5-NEtPFOSA	*62.1*		*10 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
d7-N-MeFOSE-M	*62.1*		*10 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*
d9-N-EtFOSE-M	*65.5*		*10 - 130*	*08/04/25 04:34*	*08/07/25 13:21*	*1*

Lab Sample ID: LCS 320-867567/3-A
Matrix: Water
Analysis Batch: 868351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	36.5		ng/L		97	55 - 160
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	71.8		ng/L		94	60 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	76.3		ng/L		102	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	73.5		ng/L		96	65 - 155

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-867567/3-A
Matrix: Water
Analysis Batch: 868351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	179		ng/L		90	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	197		ng/L		99	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	88.2		ng/L		110	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	41.0		ng/L		108	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	37.3		ng/L		100	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	29.1		ng/L		97	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	44.0		ng/L		110	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	212		ng/L		106	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	39.5		ng/L		99	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	43.1		ng/L		108	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	218		ng/L		109	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.4		ng/L		103	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	40.2		ng/L		101	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	37.4		ng/L		105	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	46.3		ng/L		116	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	45.0		ng/L		112	60 - 150
Perfluorobutanesulfonic acid (PFBS)	35.5	36.6		ng/L		103	60 - 145
Perfluorobutanoic acid (PFBA)	80.0	87.3		ng/L		109	70 - 140
Perfluorodecanesulfonic acid (PFDS)	38.6	36.8		ng/L		95	60 - 145
Perfluorodecanoic acid (PFDA)	40.0	41.1		ng/L		103	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	38.8	34.6		ng/L		89	50 - 145
Perfluorododecanoic acid (PFDoA)	40.0	44.1		ng/L		110	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	38.2	39.7		ng/L		104	70 - 150
Perfluoroheptanoic acid (PFHpA)	40.0	39.6		ng/L		99	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	36.5	31.3		ng/L		86	65 - 145
Perfluorohexanoic acid (PFHxA)	40.0	41.4		ng/L		103	70 - 145
Perfluorononanesulfonic acid (PFNS)	38.5	38.5		ng/L		100	65 - 145
Perfluorononanoic acid (PFNA)	40.0	42.5		ng/L		106	70 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	43.3		ng/L		108	70 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-867567/3-A
Matrix: Water
Analysis Batch: 868351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	37.2	37.3		ng/L		100	55 - 150
Perfluorooctanoic acid (PFOA)	40.0	40.4		ng/L		101	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	37.6	30.9		ng/L		82	65 - 140
Perfluoropentanoic acid (PFPeA)	40.0	45.4		ng/L		114	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	40.0	44.4		ng/L		111	60 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	40.5		ng/L		101	65 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	39.6		ng/L		99	70 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 4:2 FTS	*109*		*40 - 200*
13C2 6:2 FTS	*97.9*		*40 - 200*
13C2 8:2 FTS	*95.8*		*40 - 300*
13C2 PFDoA	*91.0*		*10 - 130*
13C2 PFTeDA	*81.1*		*10 - 130*
13C3 HFPO-DA	*89.9*		*40 - 130*
13C3 PFBS	*96.3*		*40 - 135*
13C3 PFHxS	*107*		*40 - 130*
13C4 PFBA	*93.0*		*5 - 130*
13C4 PFHpA	*93.6*		*40 - 130*
13C5 PFHxA	*94.5*		*40 - 130*
13C5 PFPeA	*84.3*		*40 - 130*
13C6 PFDA	*95.7*		*40 - 130*
13C7 PFUnA	*101*		*30 - 130*
13C8 FOSA	*75.7*		*40 - 130*
13C8 PFOA	*88.0*		*40 - 130*
13C8 PFOS	*89.2*		*40 - 130*
13C9 PFNA	*84.2*		*40 - 130*
d3-NMeFOSAA	*82.7*		*40 - 170*
d3-NMePFOSA	*70.3*		*10 - 130*
d5-NEtFOSAA	*86.1*		*25 - 135*
d5-NEtPFOSA	*65.0*		*10 - 130*
d7-N-MeFOSE-M	*71.1*		*10 - 130*
d9-N-EtFOSE-M	*71.4*		*10 - 130*

Lab Sample ID: LLCS 320-867567/2-A
Matrix: Water
Analysis Batch: 868351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867567

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	3.89		ng/L		103	55 - 160
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.66		ng/L		100	60 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.13		ng/L		95	70 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-867567/2-A
Matrix: Water
Analysis Batch: 868351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867567

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.71		ng/L		101	65 - 155
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	17.4		ng/L		87	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	19.7		ng/L		98	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	8.29		ng/L		104	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	4.33		ng/L		114	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	3.95		ng/L		106	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.72		ng/L		91	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.42		ng/L		110	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	21.2		ng/L		106	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	4.13		ng/L		103	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.39		ng/L		110	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.4		ng/L		107	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.31		ng/L		108	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.21		ng/L		105	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.67		ng/L		103	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.18		ng/L		105	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.48		ng/L		112	60 - 150
Perfluorobutanesulfonic acid (PFBS)	3.55	4.19		ng/L		118	60 - 145
Perfluorobutanoic acid (PFBA)	8.00	9.40		ng/L		117	70 - 140
Perfluorodecanesulfonic acid (PFDS)	3.86	3.66		ng/L		95	60 - 145
Perfluorodecanoic acid (PFDA)	4.00	4.20		ng/L		105	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	3.88	3.26		ng/L		84	50 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.47		ng/L		112	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	3.82	4.22		ng/L		110	70 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	4.39		ng/L		110	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.47		ng/L		95	65 - 145
Perfluorohexanoic acid (PFHxA)	4.00	4.34		ng/L		109	70 - 145
Perfluorononanesulfonic acid (PFNS)	3.85	3.83		ng/L		100	65 - 145
Perfluorononanoic acid (PFNA)	4.00	4.73		ng/L		118	70 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-867567/2-A
Matrix: Water
Analysis Batch: 868351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 867567

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonamide (PFOSA)	4.00	4.40		ng/L		110	70 - 145
Perfluorooctanesulfonic acid (PFOS)	3.72	3.96		ng/L		106	55 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.40		ng/L		110	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.63		ng/L		97	65 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.67		ng/L		117	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.56		ng/L		114	60 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.48		ng/L		112	65 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.04		ng/L		101	70 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 4:2 FTS	*112*		*40 - 200*
13C2 6:2 FTS	*97.3*		*40 - 200*
13C2 8:2 FTS	*91.4*		*40 - 300*
13C2 PFDoA	*82.8*		*10 - 130*
13C2 PFTeDA	*72.4*		*10 - 130*
13C3 HFPO-DA	*86.1*		*40 - 130*
13C3 PFBS	*93.6*		*40 - 135*
13C3 PFHxS	*103*		*40 - 130*
13C4 PFBA	*90.3*		*5 - 130*
13C4 PFHpA	*86.3*		*40 - 130*
13C5 PFHxA	*95.5*		*40 - 130*
13C5 PFPeA	*89.8*		*40 - 130*
13C6 PFDA	*97.7*		*40 - 130*
13C7 PFUnA	*98.5*		*30 - 130*
13C8 FOSA	*77.2*		*40 - 130*
13C8 PFOA	*89.7*		*40 - 130*
13C8 PFOS	*89.2*		*40 - 130*
13C9 PFNA	*88.8*		*40 - 130*
d3-NMeFOSAA	*86.4*		*40 - 170*
d3-NMePFOSA	*67.7*		*10 - 130*
d5-NEtFOSAA	*84.7*		*25 - 135*
d5-NEtPFOSA	*62.0*		*10 - 130*
d7-N-MeFOSE-M	*69.3*		*10 - 130*
d9-N-EtFOSE-M	*67.0*		*10 - 130*

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163078-1
SDG: Well 14 Step

LCMS

Prep Batch: 867567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163078-1	Well 14 Step	Total/NA	Water	1633	
MB 320-867567/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-867567/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 320-867567/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 868351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163078-1	Well 14 Step	Total/NA	Water	1633	867567
LCS 320-867567/3-A	Lab Control Sample	Total/NA	Water	1633	867567
LLCS 320-867567/2-A	Lab Control Sample	Total/NA	Water	1633	867567

Analysis Batch: 868467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-867567/1-A	Method Blank	Total/NA	Water	1633	867567

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163078-1
SDG: Well 14 Step

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163078-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			867567	BMS	EET SAC	08/04/25 04:34
Total/NA	Analysis	1633		1	868351	N1K	EET SAC	08/06/25 08:03

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163078-1
SDG: Well 14 Step

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA00044	06-30-26
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468.03	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-26
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-26
Georgia	State	4040	01-29-26
Illinois	NELAP	200060	03-31-26
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-26
Louisiana (All)	NELAP	01944	06-30-26
Maine	State	CA00004	04-14-26
Massachusetts	State	M-CA044	06-30-26
Michigan	State	9947	01-29-26
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	08-31-25
New Jersey	NELAP	CA005	06-30-26
New York	NELAP	11666	04-01-26
Ohio	State	41252	01-29-26
Oregon	NELAP	4040	01-29-26
Texas	NELAP	T104704399-23-17	05-31-26
US Fish & Wildlife	US Federal Programs	A22139	04-30-26
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-26
Virginia	NELAP	460278	03-14-26
Washington	State	C581	05-05-26
West Virginia (DW)	State	9930C	02-01-26
West Virginia DEP	State	422	03-28-26
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163078-1
SDG: Well 14 Step

Method	Method Description	Protocol	Laboratory
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET SAC
1633	Solid-Phase Extraction (SPE)	EPA	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163078-1
SDG: Well 14 Step

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-163078-1	Well 14 Step	Water	07/28/25 09:30	07/29/25 09:56	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site	SSOW#:			

Analysis Requested

Preservation Codes.
A - HCL
B - NaOH
C - Zn Acetate
D Nitric Acid
E NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K EDTA
L EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R Na2S2O3
S - H2SO4
T TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633 PFAs	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:		X	X	N	X	
Well 14 Step	7/28/25	9.30	G	Saltwater			2	2	
			~~G~~	~~Saltwater~~			2		

380-163078 COC

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III IV Other (specify)

Special Instructions/QC Requirements: 3915 1602 8340

Empty Kit Relinquished by:	Date	Time	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Jordan Moniuszko	7/28/25 2.00	INTERA Inc	[illegible]	7/28/25 0956	EEAP

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 1.1-0.2 = 0.9 ice (730A)

Ver: 01/16/2019

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-236023.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-163078-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 8/25/2025			Preservation Codes: -
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desatination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final/1633_SPE_12SStandard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Well 14 Step (380-163078-1)	7/28/25	09:30 Hawaiian	G	Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Guillermo	7.30.25 9:08			7.31.25	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163078-1
SDG Number: Well 14 Step

Login Number: 163078
List Number: 1
Creator: Leon, Mosses

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163078-1
SDG Number: Well 14 Step

Login Number: 163078
List Number: 2
Creator: Simmons, Jason C

List Source: Eurofins Sacramento
List Creation: 07/31/25 12:50 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 9/15/2025 11:00:08 AM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 14 Step

JOB NUMBER

380-163150-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

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Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 9
Client Sample Results 10
Surrogate Summary 16
Tracer Carrier Summary 18
QC Sample Results 19
QC Association Summary 39
Lab Chronicle 45
Certification Summary 47
Method Summary 50
Sample Summary 51
Chain of Custody 52
Field Data Sheets 62
Receipt Checklists 64

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F1	MS and/or MSD recovery exceeds control limits.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Job Narrative
380-163150-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 7/29/2025 9:56 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C.

GC/MS Semi VOA
Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-604602. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 625

Method 625.1: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 570-604602 and analytical batch 570-607169 recovered outside control limits for the following analyte(s): Aniline and Benzidine. Aniline and Benzidine have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-604602 and analytical batch 570-607169 recovered outside control limits for the following analytes: Benzidine.

Method 625.1_SIM_PREC: Surrogate recovery for the following sample was outside control limits: Well 14 Step (380-163150-1). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results. Results are reported from the first extraction.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015B_DRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-606235. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method: 8015B_DRO

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
Method 608.3_PCB: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-604903. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Method 608.3 PEST/PCB LL

Method 608.3_PCB: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-604903 and analytical batch 570-605716 recovered outside control limits for the following analytes: Aroclor-1016 and Aroclor-1260. Laboratory control sample / laboratory control sample duplicate (LCS/LCSD) percent recovery is in control for affected analytes.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
Method 608.3_Pest: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-604903. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Method 608.3 PEST/PCB LL

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: Well 14 Step (380-163150-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: Well 14 Step (380-163150-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6010D - Dissolved: The low level check standard recovery associated with batch 570-608018 is outside the acceptance criteria for the following analyte(s): < Magnesium>. All samples have result higher than the continuing calibration verification (CCV).

Method 6020 - Dissolved: The following samples were not filtered within 15 minutes of sample collection as required by the method: Well 14 Step (380-163150-1), (380-163150-U-1 MS) and (380-163150-U-1 MSD). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6020 - Dissolved: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-605232 and analytical batch 570-605575 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 6020 - Dissolved: The following sample was diluted due to the nature of the sample matrix: Well 14 Step (380-163150-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-604407. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
EPA 1664 A/B.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 900.0: GAB prep batch 730298
The following samples had a final mass above the 100 mg limit: Well 14 Step (380-163150-1). The according dilution is noted in the notes section of the prep worksheet and is reflected in the initial amount field.

Method 900.0: Gross Alpha Beta Batch 730298The detection goal was not met for the following sample due to a reduction of the sample size attributed to high residual mass: Well 14 Step (380-163150-1). Analytical results are reported with the detection limit achieved.

Method 903.0: -

Method 904.0: Radium-228 batch 730074
The detection goal was not met for the following sample due to the reduced sample volume in prep attributed to the presence of matrix interferences: Well 14 Step (380-163150-1). Analytical results are reported with the detection limit achieved.

Job ID: 380-163150-1 (Continued) Eurofins Eaton Analytical Pomona

Method 905_Sr90: Strontium-90 Prep Batch 160-730442

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Due to matrix interference observed in the initial prep of the sample, the sample was prepared at a reduced aliquot, cooked dry, muffled in an oven, and digested to reduce organic interference before the procedure for water samples was continued.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Client Sample ID: Well 14 Step

Lab Sample ID: 380-163150-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	75		49		ug/L	1		8015B	Total/NA
Bromide	51		4.0		mg/L	40		300.0	Total/NA
Sulfate	2800		40		mg/L	40		300.0	Total/NA
Chloride - DL	20000		500		mg/L	500		300.0	Total/NA
Mercury	2.7		0.50		ng/L	1		1631E	Total/NA
Arsenic	1.5		0.70		ug/L	1		1640	Dissolved
Chromium	1.5		1.0		ug/L	1		1640	Dissolved
Copper	9.6		0.50		ug/L	1		1640	Dissolved
Lead	0.24		0.050		ug/L	1		1640	Dissolved
Zinc	190		10		ug/L	10		1640	Dissolved
Barium	12		0.50		ug/L	1		1640	Dissolved
Iron	240		6.0		ug/L	1		1640	Dissolved
Manganese	110		0.50		ug/L	10		1640	Dissolved
Vanadium	3.5		1.0		ug/L	1		1640	Dissolved
Calcium	370		10		mg/L	5		6010D	Dissolved
Magnesium	1100	^3+	2.5		mg/L	5		6010D	Dissolved
Potassium	390		10		mg/L	5		6010D	Dissolved
SiO2	8.4		2.7		mg/L	5		6010D	Dissolved
Sodium	9200		40		mg/L	20		6010D	Dissolved
Strontium	7.6		0.050		mg/L	5		6010D	Dissolved
Total Kjeldahl Nitrogen	0.59		0.20		mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	48		10		mg/L	1		410.4	Total/NA
Alkalinity, Total (As CaCO3)	110		5.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate (as CaCO3)	110		5.0		mg/L	1		SM 2320B	Total/NA
Salinity	34		2.0		psu	1		SM 2520B	Total/NA
Total Dissolved Solids	36000		1000		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163150-1

Matrix: Water

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		08/04/25 07:39	08/04/25 20:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*73*		*30 - 187*	*08/04/25 07:39*	*08/04/25 20:53*	*1*
Benzo(a)pyrene-d12 (Surr)	*25*	*S1-*	*32 - 194*	*08/04/25 07:39*	*08/04/25 20:53*	*1*
1-Methylnaphthalene-d10	*55*		*45 - 130*	*08/04/25 07:39*	*08/04/25 20:53*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
1,2-Dichlorobenzene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
1,3-Dichlorobenzene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
1,4-Dichlorobenzene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
1-Methylnaphthalene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2,4,5-Trichlorophenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2,4,6-Trichlorophenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2,4-Dichlorophenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2,4-Dimethylphenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2,4-Dinitrophenol	ND		48		ug/L		07/30/25 12:37	08/05/25 17:54	1
2,4-Dinitrotoluene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2,6-Dichlorophenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2,6-Dinitrotoluene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2-Chloronaphthalene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2-Chlorophenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2-Methylnaphthalene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2-Methylphenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2-Nitroaniline	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
2-Nitrophenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
3,3'-Dichlorobenzidine	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
3/4-Methylphenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
3-Nitroaniline	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
4,6-Dinitro-2-methylphenol	ND		48		ug/L		07/30/25 12:37	08/05/25 17:54	1
4-Bromophenyl phenyl ether	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
4-Chloro-3-methylphenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
4-Chloroaniline	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
4-Chlorophenyl phenyl ether	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
4-Nitroaniline	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
4-Nitrophenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Acenaphthene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Acenaphthylene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Acetophenone	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Alpha-Terpineol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Aniline	ND	*-	9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Anthracene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Azobenzene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Benzidine	ND	*- *1	48		ug/L		07/30/25 12:37	08/05/25 17:54	1
Benzo[a]anthracene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Benzo[a]pyrene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163150-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Benzo[g,h,i]perylene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Benzo[k]fluoranthene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Benzoic acid	ND		48		ug/L		07/30/25 12:37	08/05/25 17:54	1
Benzyl alcohol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Bis (2-chloroethoxy) methane	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
bis (2-chloroisopropyl) ether	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Bis(2-chloroethyl)ether	ND		24		ug/L		07/30/25 12:37	08/05/25 17:54	1
Bis(2-ethylhexyl) phthalate	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Butyl benzyl phthalate	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Carbazole	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Chrysene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Dibenz(a,h)anthracene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Dibenzofuran	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Diethyl phthalate	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Dimethyl phthalate	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Di-n-butyl phthalate	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Di-n-octyl phthalate	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Fluoranthene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Fluorene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Hexachloro-1,3-butadiene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Hexachlorobenzene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Hexachlorocyclopentadiene	ND		24		ug/L		07/30/25 12:37	08/05/25 17:54	1
Hexachloroethane	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Indeno[1,2,3-cd]pyrene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Isophorone	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Naphthalene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
n-Decane	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Nitrobenzene	ND		24		ug/L		07/30/25 12:37	08/05/25 17:54	1
N-Nitrosodimethylamine	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
N-Nitrosodi-n-propylamine	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
N-Nitrosodiphenylamine	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
n-Octadecane	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Pentachlorophenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Phenanthrene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Phenol	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Pyrene	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1
Pyridine	ND		9.7		ug/L		07/30/25 12:37	08/05/25 17:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*07/30/25 12:37*	*08/05/25 17:54*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*07/30/25 12:37*	*08/05/25 17:54*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*07/30/25 12:37*	*08/05/25 17:54*	*1*
2,3,7,8-TCDD TIC	*ND*		*ug/L*			*1746-01-6*	*07/30/25 12:37*	*08/05/25 17:54*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*07/30/25 12:37*	*08/05/25 17:54*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*07/30/25 12:37*	*08/05/25 17:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*97*		*33 - 139*	*07/30/25 12:37*	*08/05/25 17:54*	*1*
2-Fluorobiphenyl (Surr)	*82*		*33 - 126*	*07/30/25 12:37*	*08/05/25 17:54*	*1*

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163150-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*44*		*12 - 120*	*07/30/25 12:37*	*08/05/25 17:54*	*1*
Nitrobenzene-d5 (Surr)	*73*		*36 - 120*	*07/30/25 12:37*	*08/05/25 17:54*	*1*
Phenol-d6 (Surr)	*34*		*10 - 120*	*07/30/25 12:37*	*08/05/25 17:54*	*1*
p-Terphenyl-d14 (Surr)	*95*		*47 - 131*	*07/30/25 12:37*	*08/05/25 17:54*	*1*

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0094	ug/L		07/31/25 04:47	08/10/25 08:07	1
4,4'-DDE	ND		0.0047	ug/L		07/31/25 04:47	08/10/25 08:07	1
4,4'-DDT	ND		0.0047	ug/L		07/31/25 04:47	08/10/25 08:07	1
Aldrin	ND		0.0047	ug/L		07/31/25 04:47	08/10/25 08:07	1
alpha-BHC	ND		0.0019	ug/L		07/31/25 04:47	08/10/25 08:07	1
alpha-Chlordane	ND		0.047	ug/L		07/31/25 04:47	08/10/25 08:07	1
beta-BHC	ND		0.0071	ug/L		07/31/25 04:47	08/10/25 08:07	1
Chlordane	ND		0.047	ug/L		07/31/25 04:47	08/10/25 08:07	1
delta-BHC	ND		0.0047	ug/L		07/31/25 04:47	08/10/25 08:07	1
Dieldrin	ND		0.0047	ug/L		07/31/25 04:47	08/10/25 08:07	1
Endosulfan I	ND		0.0019	ug/L		07/31/25 04:47	08/10/25 08:07	1
Endosulfan II	ND		0.0094	ug/L		07/31/25 04:47	08/10/25 08:07	1
Endosulfan sulfate	ND		0.0047	ug/L		07/31/25 04:47	08/10/25 08:07	1
Endrin	ND		0.0047	ug/L		07/31/25 04:47	08/10/25 08:07	1
Endrin aldehyde	ND		0.047	ug/L		07/31/25 04:47	08/10/25 08:07	1
Endrin ketone	ND		0.0047	ug/L		07/31/25 04:47	08/10/25 08:07	1
gamma-BHC (Lindane)	ND		0.0019	ug/L		07/31/25 04:47	08/10/25 08:07	1
gamma-Chlordane	ND		0.014	ug/L		07/31/25 04:47	08/10/25 08:07	1
Heptachlor	ND		0.0019	ug/L		07/31/25 04:47	08/10/25 08:07	1
Heptachlor epoxide	ND		0.0094	ug/L		07/31/25 04:47	08/10/25 08:07	1
Methoxychlor	ND		0.0094	ug/L		07/31/25 04:47	08/10/25 08:07	1
Toxaphene	ND		0.094	ug/L		07/31/25 04:47	08/10/25 08:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*83*		*20 - 154*	*07/31/25 04:47*	*08/10/25 08:07*	*1*
Tetrachloro-m-xylene (Surr)	*73*		*20 - 139*	*07/31/25 04:47*	*08/10/25 08:07*	*1*

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND	*1	0.094	ug/L		07/31/25 04:47	08/01/25 16:16	1
Aroclor-1221	ND		0.094	ug/L		07/31/25 04:47	08/01/25 16:16	1
Aroclor-1232	ND		0.094	ug/L		07/31/25 04:47	08/01/25 16:16	1
Aroclor-1242	ND		0.094	ug/L		07/31/25 04:47	08/01/25 16:16	1
Aroclor-1248	ND		0.094	ug/L		07/31/25 04:47	08/01/25 16:16	1
Aroclor-1254	ND		0.094	ug/L		07/31/25 04:47	08/01/25 16:16	1
Aroclor-1260	ND	*1	0.094	ug/L		07/31/25 04:47	08/01/25 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*93*		*20 - 154*	*07/31/25 04:47*	*08/01/25 16:16*	*1*
Tetrachloro-m-xylene (Surr)	*79*		*20 - 139*	*07/31/25 04:47*	*08/01/25 16:16*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163150-1

Matrix: Water

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250	ug/L		08/03/25 07:45	08/25/25 09:52	1
Diesel Range Organics [C10-C28]	**75**		49	ug/L		08/03/25 07:45	08/25/25 09:52	1
C24-C44	ND		250	ug/L		08/03/25 07:45	08/25/25 09:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*99*		*53 - 151*	*08/03/25 07:45*	*08/25/25 09:52*	*1*
n-Octacosane (Surr)	*99*		*53 - 151*	*08/03/25 07:45*	*08/25/25 09:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**51**		4.0	mg/L			07/31/25 10:59	40
Fluoride	ND		4.0	mg/L			07/31/25 10:59	40
Sulfate	**2800**		40	mg/L			07/31/25 10:59	40

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20000**		500	mg/L			07/31/25 11:42	500

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**2.7**		0.50	ng/L			08/06/25 16:38	1

Method: EPA 1640 - Metals (ICPMS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.5**		0.70	ug/L		08/06/25 00:00	08/07/25 02:49	1
Cadmium	ND		0.020	ug/L		08/06/25 00:00	08/07/25 02:49	1
Chromium	**1.5**		1.0	ug/L		08/06/25 00:00	08/07/25 02:49	1
Copper	**9.6**		0.50	ug/L		08/06/25 00:00	08/07/25 02:49	1
Lead	**0.24**		0.050	ug/L		08/06/25 00:00	08/07/25 02:49	1
Zinc	**190**		10	ug/L		08/06/25 00:00	08/07/25 11:45	10
Aluminum	ND		5.0	ug/L		08/06/25 00:00	08/07/25 02:49	1
Barium	**12**		0.50	ug/L		08/06/25 00:00	08/07/25 02:49	1
Iron	**240**		6.0	ug/L		08/11/25 00:00	08/12/25 01:33	1
Manganese	**110**		0.50	ug/L		08/06/25 00:00	08/07/25 11:45	10
Selenium	ND		0.70	ug/L		08/06/25 00:00	08/07/25 02:49	1
Vanadium	**3.5**		1.0	ug/L		08/06/25 00:00	08/07/25 02:49	1
Silver	ND		1.0	ug/L		08/06/25 00:00	08/07/25 02:49	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**370**		10	mg/L			08/06/25 14:29	5
Iron	ND		2.5	mg/L			08/06/25 14:29	5
Lithium	ND		0.25	mg/L			08/06/25 14:29	5
Magnesium	**1100**	**^3+**	2.5	mg/L			08/06/25 14:29	5
Potassium	**390**		10	mg/L			08/06/25 14:29	5
SiO2	**8.4**		2.7	mg/L			08/06/25 14:29	5
Sodium	**9200**		40	mg/L			08/06/25 14:27	20
Strontium	**7.6**		0.050	mg/L			08/06/25 14:29	5

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163150-1

Matrix: Water

Method: SW846 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND	F1	20		ug/L			07/31/25 18:23	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		0.93		mg/L		07/30/25 13:50	07/30/25 14:22	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.59**		0.20		mg/L		08/15/25 13:33	08/16/25 14:13	1
Chemical Oxygen Demand (EPA 410.4)	**48**		10		mg/L		08/10/25 08:18	08/10/25 11:18	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**110**		5.0		mg/L			08/10/25 19:07	1
Bicarbonate (as CaCO3) (SM 2320B)	**110**		5.0		mg/L			08/10/25 19:07	1
Carbonate (as CaCO3) (SM 2320B)	ND		5.0		mg/L			08/10/25 19:07	1
Hydroxide (as CaCO3) (SM 2320B)	ND		5.0		mg/L			08/10/25 19:07	1
Salinity (SM 2520B)	**34**		2.0		psu			08/11/25 14:18	1
Total Dissolved Solids (SM 2540C)	**36000**		1000		mg/L			08/01/25 15:44	1

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	176	U G	125	126	4.00	194	pCi/L	08/04/25 08:09	08/06/25 18:28	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.96**		0.367	0.407	1.00	0.170	pCi/L	08/01/25 09:27	08/25/25 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*30 - 110*	*08/01/25 09:27*	*08/25/25 07:43*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0307	U G	0.653	0.653	1.00	1.24	pCi/L	08/01/25 09:31	08/14/25 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*30 - 110*	*08/01/25 09:31*	*08/14/25 12:02*	*1*
Y Carrier	*74.8*		*30 - 110*	*08/01/25 09:31*	*08/14/25 12:02*	*1*

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	-0.313	U	1.48	1.48	3.00	1.65	pCi/L	08/04/25 11:23	08/18/25 15:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*74.0*		*30 - 110*	*08/04/25 11:23*	*08/18/25 15:05*	*1*
Y Carrier	*95.0*		*30 - 110*	*08/04/25 11:23*	*08/18/25 15:05*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163150-1

Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.96		0.749	0.769	5.00	1.24	pCi/L		08/22/25 16:33	1

Method: SM7110C - Gross Alpha by Co-Precipitation

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	9.88		2.52	2.76	3.00	1.31	pCi/L	08/06/25 08:27	08/07/25 15:36	1

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-163150-1	Well 14 Step	97	82	44	73	34	95
LCS 570-604602/2-A	Lab Control Sample	103	97	51	88	34	104
LCSD 570-604602/3-A	Lab Control Sample Dup	101	92	49	85	31	100
MB 570-604602/1-A	Method Blank	103	96	50	90	31	97

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FLN10	BAPd12	MNPd10
Lab Sample ID	Client Sample ID	(30-187)	(32-194)	(45-130)
380-163150-1	Well 14 Step	73	25 S1-	55
LCS 410-680097/2-A	Lab Control Sample	77	79	62
LCSD 410-680097/3-A	Lab Control Sample Dup	78	81	57
MB 410-680097/1-A	Method Blank	77	82	65

Surrogate Legend

FLN10 = Fluoranthene-d10 (Surr)
BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB2	TCX2
Lab Sample ID	Client Sample ID	(20-154)	(20-139)
380-163150-1	Well 14 Step	83	73
LCSD 570-604903/3-A	Lab Control Sample Dup	90	85
MB 570-604903/1-A	Method Blank	89	88

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB2	TCX1
Lab Sample ID	Client Sample ID	(20-154)	(20-139)
LCS 570-604903/2-A	Lab Control Sample	91	88

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(20-154)	(20-139)
380-163150-1	Well 14 Step	93	79
LCS 570-604903/4-A	Lab Control Sample	84	81
LCSD 570-604903/5-A	Lab Control Sample Dup	54	56
MB 570-604903/1-A	Method Blank	89	91

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTCSN1	OTCSN1
Lab Sample ID	Client Sample ID	(53-151)	(53-151)
380-163150-1	Well 14 Step	99	99
LCS 570-606235/2-A	Lab Control Sample	105	105
LCS 570-606235/4-A	Lab Control Sample	72	72
LCSD 570-606235/3-A	Lab Control Sample Dup	106	106
LCSD 570-606235/5-A	Lab Control Sample Dup	82	82
MB 570-606235/1-A	Method Blank	66	66

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Tracer/Carrier Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Ba (30-110)
380-163150-1	Well 14 Step	86.6
LCS 160-730073/2-A	Lab Control Sample	88.3
MB 160-730073/1-A	Method Blank	92.3

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
380-163150-1	Well 14 Step	86.6	74.8
LCS 160-730074/2-A	Lab Control Sample	88.3	82.2
MB 160-730074/1-A	Method Blank	92.3	83.7

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)
380-163150-1	Well 14 Step	74.0	95.0
LCS 160-730442/2-A	Lab Control Sample	81.4	96.8
LCSD 160-730442/3-A	Lab Control Sample Dup	84.7	93.5
MB 160-730442/1-A	Method Blank	79.3	93.5

Percent Yield (Acceptance Limits)

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-604602/1-A
Matrix: Water
Analysis Batch: 607169

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 604602

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
1,2-Dichlorobenzene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
1,3-Dichlorobenzene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
1,4-Dichlorobenzene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
1-Methylnaphthalene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2,4,5-Trichlorophenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2,4,6-Trichlorophenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2,4-Dichlorophenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2,4-Dimethylphenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2,4-Dinitrophenol	ND		50		ug/L		07/30/25 12:37	08/05/25 15:16	1
2,4-Dinitrotoluene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2,6-Dichlorophenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2,6-Dinitrotoluene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2-Chloronaphthalene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2-Chlorophenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2-Methylnaphthalene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2-Methylphenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2-Nitroaniline	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
2-Nitrophenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
3,3'-Dichlorobenzidine	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
3/4-Methylphenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
3-Nitroaniline	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		07/30/25 12:37	08/05/25 15:16	1
4-Bromophenyl phenyl ether	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
4-Chloro-3-methylphenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
4-Chloroaniline	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
4-Nitroaniline	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
4-Nitrophenol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Acenaphthene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Acenaphthylene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Acetophenone	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Alpha-Terpineol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Aniline	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Anthracene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Azobenzene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Benzidine	ND		50		ug/L		07/30/25 12:37	08/05/25 15:16	1
Benzo[a]anthracene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Benzo[a]pyrene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Benzo[b]fluoranthene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Benzo[g,h,i]perylene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Benzo[k]fluoranthene	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Benzoic acid	ND		50		ug/L		07/30/25 12:37	08/05/25 15:16	1
Benzyl alcohol	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		07/30/25 12:37	08/05/25 15:16	1
Bis(2-chloroethyl)ether	ND		25		ug/L		07/30/25 12:37	08/05/25 15:16	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-604602/1-A
Matrix: Water
Analysis Batch: 607169

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 604602

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Butyl benzyl phthalate	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Carbazole	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Chrysene	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Dibenz(a,h)anthracene	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Dibenzofuran	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Diethyl phthalate	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Dimethyl phthalate	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Di-n-butyl phthalate	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Di-n-octyl phthalate	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Fluoranthene	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Fluorene	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Hexachloro-1,3-butadiene	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Hexachlorobenzene	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Hexachlorocyclopentadiene	ND		25	ug/L		07/30/25 12:37	08/05/25 15:16	1
Hexachloroethane	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Indeno[1,2,3-cd]pyrene	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Isophorone	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Naphthalene	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
n-Decane	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Nitrobenzene	ND		25	ug/L		07/30/25 12:37	08/05/25 15:16	1
N-Nitrosodimethylamine	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
N-Nitrosodiphenylamine	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
n-Octadecane	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Pentachlorophenol	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Phenanthrene	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Phenol	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Pyrene	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1
Pyridine	ND		10	ug/L		07/30/25 12:37	08/05/25 15:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*103*		*33 - 139*	*07/30/25 12:37*	*08/05/25 15:16*	*1*
2-Fluorobiphenyl (Surr)	*96*		*33 - 126*	*07/30/25 12:37*	*08/05/25 15:16*	*1*
2-Fluorophenol (Surr)	*50*		*12 - 120*	*07/30/25 12:37*	*08/05/25 15:16*	*1*
Nitrobenzene-d5 (Surr)	*90*		*36 - 120*	*07/30/25 12:37*	*08/05/25 15:16*	*1*
Phenol-d6 (Surr)	*31*		*10 - 120*	*07/30/25 12:37*	*08/05/25 15:16*	*1*
p-Terphenyl-d14 (Surr)	*97*		*47 - 131*	*07/30/25 12:37*	*08/05/25 15:16*	*1*

Lab Sample ID: LCS 570-604602/2-A
Matrix: Water
Analysis Batch: 607169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604602

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	100	106		ug/L		106	57 - 130
1,2-Dichlorobenzene	100	89.5		ug/L		90	50 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	79.7		ug/L		80	57 - 120
1,3-Dichlorobenzene	100	82.6		ug/L		83	46 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-604602/2-A
Matrix: Water
Analysis Batch: 607169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604602

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	100	83.0		ug/L		83	47 - 120
1-Methylnaphthalene	100	106		ug/L		106	63 - 120
2,4,5-Trichlorophenol	100	119		ug/L		119	62 - 120
2,4,6-Trichlorophenol	100	117		ug/L		117	52 - 129
2,4-Dichlorophenol	100	118		ug/L		118	53 - 122
2,4-Dimethylphenol	100	50.1		ug/L		50	42 - 120
2,4-Dinitrophenol	100	89.5		ug/L		89	1 - 173
2,4-Dinitrotoluene	100	118		ug/L		118	48 - 127
2,6-Dichlorophenol	100	113		ug/L		113	64 - 120
2,6-Dinitrotoluene	100	116		ug/L		116	68 - 137
2-Chloronaphthalene	100	93.5		ug/L		94	65 - 120
2-Chlorophenol	100	91.2		ug/L		91	36 - 120
2-Methylnaphthalene	100	104		ug/L		104	60 - 120
2-Methylphenol	100	81.3		ug/L		81	55 - 120
2-Nitroaniline	100	95.6		ug/L		96	53 - 120
2-Nitrophenol	100	106		ug/L		106	45 - 167
3,3'-Dichlorobenzidine	100	82.7		ug/L		83	8 - 213
3/4-Methylphenol	200	161		ug/L		80	41 - 120
3-Nitroaniline	100	104		ug/L		104	62 - 120
4,6-Dinitro-2-methylphenol	100	120		ug/L		120	53 - 130
4-Bromophenyl phenyl ether	100	103		ug/L		103	65 - 120
4-Chloro-3-methylphenol	100	105		ug/L		105	41 - 128
4-Chloroaniline	100	80.8		ug/L		81	53 - 120
4-Chlorophenyl phenyl ether	100	106		ug/L		106	38 - 145
4-Nitroaniline	100	114		ug/L		114	61 - 120
4-Nitrophenol	100	44.1		ug/L		44	13 - 129
Acenaphthene	100	99.6		ug/L		100	60 - 132
Acenaphthylene	100	101		ug/L		101	54 - 126
Acetophenone	100	95.6		ug/L		96	45 - 120
Alpha-Terpineol	100	94.8		ug/L		95	60 - 140
Aniline	100	46.6	*-	ug/L		47	50 - 120
Anthracene	100	98.9		ug/L		99	43 - 120
Azobenzene	100	79.7		ug/L		80	57 - 120
Benzidine	100	ND	*-	ug/L		0	20 - 143
Benzo[a]anthracene	100	104		ug/L		104	42 - 133
Benzo[a]pyrene	100	107		ug/L		107	32 - 148
Benzo[b]fluoranthene	100	107		ug/L		107	42 - 140
Benzo[g,h,i]perylene	100	106		ug/L		106	1 - 195
Benzo[k]fluoranthene	100	106		ug/L		106	25 - 146
Benzoic acid	100	34.4	J	ug/L		34	20 - 120
Benzyl alcohol	100	80.7		ug/L		81	47 - 120
Bis (2-chloroethoxy) methane	100	90.7		ug/L		91	49 - 165
bis (2-chloroisopropyl) ether	100	87.7		ug/L		88	63 - 139
Bis(2-chloroethyl)ether	100	74.7		ug/L		75	43 - 126
Bis(2-ethylhexyl) phthalate	100	106		ug/L		106	29 - 137
Butyl benzyl phthalate	100	102		ug/L		102	1 - 140
Chrysene	100	105		ug/L		105	44 - 140
Dibenz(a,h)anthracene	100	108		ug/L		108	1 - 200
Dibenzofuran	100	106		ug/L		106	61 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-604602/2-A
Matrix: Water
Analysis Batch: 607169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604602

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diethyl phthalate	100	103		ug/L		103	1 - 120
Dimethyl phthalate	100	103		ug/L		103	1 - 120
Di-n-butyl phthalate	100	104		ug/L		104	8 - 120
Di-n-octyl phthalate	100	109		ug/L		109	19 - 132
Fluoranthene	100	99.9		ug/L		100	43 - 121
Fluorene	100	105		ug/L		105	70 - 120
Hexachloro-1,3-butadiene	100	98.1		ug/L		98	38 - 120
Hexachlorobenzene	100	90.0		ug/L		90	8 - 142
Hexachlorocyclopentadiene	100	80.8		ug/L		81	46 - 135
Hexachloroethane	100	83.4		ug/L		83	55 - 120
Indeno[1,2,3-cd]pyrene	100	100		ug/L		100	1 - 151
Isophorone	100	83.7		ug/L		84	47 - 180
Naphthalene	100	94.5		ug/L		95	36 - 120
Nitrobenzene	100	92.1		ug/L		92	54 - 158
N-Nitrosodimethylamine	100	45.5		ug/L		45	38 - 120
N-Nitrosodi-n-propylamine	100	95.3		ug/L		95	14 - 198
N-Nitrosodiphenylamine	100	121		ug/L		121	79 - 127
Pentachlorophenol	100	76.7		ug/L		77	38 - 152
Phenanthrene	100	101		ug/L		101	65 - 120
Phenol	100	35.9		ug/L		36	17 - 120
Pyrene	100	110		ug/L		110	70 - 120
Pyridine	100	41.4		ug/L		41	27 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*103*		*33 - 139*
2-Fluorobiphenyl (Surr)	*97*		*33 - 126*
2-Fluorophenol (Surr)	*51*		*12 - 120*
Nitrobenzene-d5 (Surr)	*88*		*36 - 120*
Phenol-d6 (Surr)	*34*		*10 - 120*
p-Terphenyl-d14 (Surr)	*104*		*47 - 131*

Lab Sample ID: LCSD 570-604602/3-A
Matrix: Water
Analysis Batch: 607169

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 604602

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	106		ug/L		106	57 - 130	1	30
1,2-Dichlorobenzene	100	88.2		ug/L		88	50 - 120	1	20
1,2-Diphenylhydrazine(as Azobenzene)	100	78.9		ug/L		79	57 - 120	1	20
1,3-Dichlorobenzene	100	79.6		ug/L		80	46 - 120	4	20
1,4-Dichlorobenzene	100	81.5		ug/L		81	47 - 120	2	20
1-Methylnaphthalene	100	103		ug/L		103	63 - 120	2	20
2,4,5-Trichlorophenol	100	116		ug/L		116	62 - 120	3	20
2,4,6-Trichlorophenol	100	113		ug/L		113	52 - 129	3	35
2,4-Dichlorophenol	100	115		ug/L		115	53 - 122	3	30
2,4-Dimethylphenol	100	45.4		ug/L		45	42 - 120	10	35
2,4-Dinitrophenol	100	82.4		ug/L		82	1 - 173	8	79
2,4-Dinitrotoluene	100	118		ug/L		118	48 - 127	0	25

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-604602/3-A
Matrix: Water
Analysis Batch: 607169

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 604602

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,6-Dichlorophenol	100	110		ug/L		110	64 - 120	3	20
2,6-Dinitrotoluene	100	114		ug/L		114	68 - 137	1	29
2-Chloronaphthalene	100	92.6		ug/L		93	65 - 120	1	15
2-Chlorophenol	100	87.4		ug/L		87	36 - 120	4	37
2-Methylnaphthalene	100	103		ug/L		103	60 - 120	2	20
2-Methylphenol	100	79.1		ug/L		79	55 - 120	3	20
2-Nitroaniline	100	94.8		ug/L		95	53 - 120	1	20
2-Nitrophenol	100	103		ug/L		103	45 - 167	3	33
3,3'-Dichlorobenzidine	100	79.0		ug/L		79	8 - 213	5	65
3/4-Methylphenol	200	151		ug/L		75	41 - 120	6	20
3-Nitroaniline	100	98.8		ug/L		99	62 - 120	5	20
4,6-Dinitro-2-methylphenol	100	119		ug/L		119	53 - 130	1	122
4-Bromophenyl phenyl ether	100	101		ug/L		101	65 - 120	2	26
4-Chloro-3-methylphenol	100	100		ug/L		100	41 - 128	5	44
4-Chloroaniline	100	75.7		ug/L		76	53 - 120	6	20
4-Chlorophenyl phenyl ether	100	105		ug/L		105	38 - 145	1	36
4-Nitroaniline	100	113		ug/L		113	61 - 120	1	20
4-Nitrophenol	100	42.4		ug/L		42	13 - 129	4	79
Acenaphthene	100	97.0		ug/L		97	60 - 132	3	29
Acenaphthylene	100	96.9		ug/L		97	54 - 126	4	45
Acetophenone	100	93.3		ug/L		93	45 - 120	2	20
Alpha-Terpineol	100	90.7		ug/L		91	60 - 140	4	30
Aniline	100	44.0	*-	ug/L		44	50 - 120	6	20
Anthracene	100	97.5		ug/L		98	43 - 120	1	40
Azobenzene	100	78.9		ug/L		79	57 - 120	1	20
Benzidine	100	ND	*- *1	ug/L		3	20 - 143	200	30
Benzo[a]anthracene	100	101		ug/L		101	42 - 133	3	32
Benzo[a]pyrene	100	105		ug/L		105	32 - 148	2	43
Benzo[b]fluoranthene	100	104		ug/L		104	42 - 140	3	43
Benzo[g,h,i]perylene	100	106		ug/L		106	1 - 195	0	61
Benzo[k]fluoranthene	100	107		ug/L		107	25 - 146	1	38
Benzoic acid	100	32.8	J	ug/L		33	20 - 120	5	20
Benzyl alcohol	100	76.6		ug/L		77	47 - 120	5	20
Bis (2-chloroethoxy) methane	100	86.7		ug/L		87	49 - 165	5	32
bis (2-chloroisopropyl) ether	100	85.6		ug/L		86	63 - 139	2	46
Bis(2-chloroethyl)ether	100	72.2		ug/L		72	43 - 126	3	65
Bis(2-ethylhexyl) phthalate	100	103		ug/L		103	29 - 137	3	50
Butyl benzyl phthalate	100	99.6		ug/L		100	1 - 140	3	36
Chrysene	100	103		ug/L		103	44 - 140	2	53
Dibenz(a,h)anthracene	100	106		ug/L		106	1 - 200	2	75
Dibenzofuran	100	105		ug/L		105	61 - 120	1	20
Diethyl phthalate	100	103		ug/L		103	1 - 120	0	60
Dimethyl phthalate	100	101		ug/L		101	1 - 120	1	110
Di-n-butyl phthalate	100	103		ug/L		103	8 - 120	1	28
Di-n-octyl phthalate	100	107		ug/L		107	19 - 132	2	42
Fluoranthene	100	100		ug/L		100	43 - 121	0	40
Fluorene	100	104		ug/L		104	70 - 120	1	23
Hexachloro-1,3-butadiene	100	95.2		ug/L		95	38 - 120	3	38
Hexachlorobenzene	100	88.8		ug/L		89	8 - 142	1	33

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-604602/3-A
Matrix: Water
Analysis Batch: 607169

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 604602

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexachlorocyclopentadiene			100	77.5		ug/L		77	46 - 135	4	20
Hexachloroethane			100	80.1		ug/L		80	55 - 120	4	32
Indeno[1,2,3-cd]pyrene			100	101		ug/L		101	1 - 151	1	60
Isophorone			100	81.7		ug/L		82	47 - 180	2	56
Naphthalene			100	91.7		ug/L		92	36 - 120	3	39
Nitrobenzene			100	90.7		ug/L		91	54 - 158	2	37
N-Nitrosodimethylamine			100	43.6		ug/L		44	38 - 120	4	20
N-Nitrosodi-n-propylamine			100	91.3		ug/L		91	14 - 198	4	52
N-Nitrosodiphenylamine			100	118		ug/L		118	79 - 127	2	20
Pentachlorophenol			100	73.6		ug/L		74	38 - 152	4	52
Phenanthrene			100	99.8		ug/L		100	65 - 120	1	24
Phenol			100	33.6		ug/L		34	17 - 120	7	39
Pyrene			100	108		ug/L		108	70 - 120	2	30
Pyridine			100	38.7		ug/L		39	27 - 120	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*101*		*33 - 139*
2-Fluorobiphenyl (Surr)	*92*		*33 - 126*
2-Fluorophenol (Surr)	*49*		*12 - 120*
Nitrobenzene-d5 (Surr)	*85*		*36 - 120*
Phenol-d6 (Surr)	*31*		*10 - 120*
p-Terphenyl-d14 (Surr)	*100*		*47 - 131*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 410-680097/1-A
Matrix: Water
Analysis Batch: 680397

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680097

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		08/04/25 07:39	08/04/25 20:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*77*		*30 - 187*	*08/04/25 07:39*	*08/04/25 20:31*	*1*
Benzo(a)pyrene-d12 (Surr)	*82*		*32 - 194*	*08/04/25 07:39*	*08/04/25 20:31*	*1*
1-Methylnaphthalene-d10	*65*		*45 - 130*	*08/04/25 07:39*	*08/04/25 20:31*	*1*

Lab Sample ID: LCS 410-680097/2-A
Matrix: Water
Analysis Batch: 680397

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680097

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			1.00	0.538		ug/L		54	18 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*77*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*79*		*32 - 194*
1-Methylnaphthalene-d10	*62*		*45 - 130*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: LCSD 410-680097/3-A
Matrix: Water
Analysis Batch: 680397

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 680097

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			1.00	0.630		ug/L		63	18 - 130	16	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*78*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*81*		*32 - 194*
1-Methylnaphthalene-d10	*57*		*45 - 130*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-604903/1-A
Matrix: Water
Analysis Batch: 607813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 604903

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0067		ug/L		07/31/25 04:45	08/06/25 19:53	1
4,4'-DDE	ND		0.0033		ug/L		07/31/25 04:45	08/06/25 19:53	1
4,4'-DDT	ND		0.0033		ug/L		07/31/25 04:45	08/06/25 19:53	1
Aldrin	ND		0.0033		ug/L		07/31/25 04:45	08/06/25 19:53	1
alpha-BHC	ND		0.0013		ug/L		07/31/25 04:45	08/06/25 19:53	1
alpha-Chlordane	ND		0.033		ug/L		07/31/25 04:45	08/06/25 19:53	1
beta-BHC	ND		0.0050		ug/L		07/31/25 04:45	08/06/25 19:53	1
Chlordane	ND		0.033		ug/L		07/31/25 04:45	08/06/25 19:53	1
delta-BHC	ND		0.0033		ug/L		07/31/25 04:45	08/06/25 19:53	1
Dieldrin	ND		0.0033		ug/L		07/31/25 04:45	08/06/25 19:53	1
Endosulfan I	ND		0.0013		ug/L		07/31/25 04:45	08/06/25 19:53	1
Endosulfan II	ND		0.0067		ug/L		07/31/25 04:45	08/06/25 19:53	1
Endosulfan sulfate	ND		0.0033		ug/L		07/31/25 04:45	08/06/25 19:53	1
Endrin	ND		0.0033		ug/L		07/31/25 04:45	08/06/25 19:53	1
Endrin aldehyde	ND		0.033		ug/L		07/31/25 04:45	08/06/25 19:53	1
Endrin ketone	ND		0.0033		ug/L		07/31/25 04:45	08/06/25 19:53	1
gamma-BHC (Lindane)	ND		0.0013		ug/L		07/31/25 04:45	08/06/25 19:53	1
gamma-Chlordane	ND		0.010		ug/L		07/31/25 04:45	08/06/25 19:53	1
Heptachlor	ND		0.0013		ug/L		07/31/25 04:45	08/06/25 19:53	1
Heptachlor epoxide	ND		0.0067		ug/L		07/31/25 04:45	08/06/25 19:53	1
Methoxychlor	ND		0.0067		ug/L		07/31/25 04:45	08/06/25 19:53	1
Toxaphene	ND		0.067		ug/L		07/31/25 04:45	08/06/25 19:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*89*		*20 - 154*	*07/31/25 04:45*	*08/06/25 19:53*	*1*
Tetrachloro-m-xylene (Surr)	*88*		*20 - 139*	*07/31/25 04:45*	*08/06/25 19:53*	*1*

Lab Sample ID: LCS 570-604903/2-A
Matrix: Water
Analysis Batch: 607813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604903

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD			0.0333	0.0277		ug/L		83	31 - 141		
4,4'-DDE			0.0333	0.0260		ug/L		78	30 - 145		

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCS 570-604903/2-A
Matrix: Water
Analysis Batch: 607813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604903

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDT	0.0333	0.0263		ug/L		79	25 - 160
Aldrin	0.0333	0.0262		ug/L		79	42 - 140
alpha-BHC	0.0333	0.0272		ug/L		82	37 - 140
alpha-Chlordane	0.0333	0.0271	J	ug/L		81	45 - 140
beta-BHC	0.0333	0.0267		ug/L		80	17 - 147
delta-BHC	0.0333	0.0220		ug/L		66	19 - 140
Dieldrin	0.0333	0.0291		ug/L		87	36 - 146
Endosulfan I	0.0333	0.0276		ug/L		83	45 - 153
Endosulfan II	0.0333	0.0284		ug/L		85	1 - 202
Endosulfan sulfate	0.0333	0.0278		ug/L		83	26 - 144
Endrin	0.0333	0.0287		ug/L		86	30 - 147
Endrin aldehyde	0.0333	0.0253	J	ug/L		76	50 - 135
Endrin ketone	0.0333	0.0263		ug/L		79	60 - 140
gamma-BHC (Lindane)	0.0333	0.0276		ug/L		83	32 - 140
gamma-Chlordane	0.0333	0.0259		ug/L		78	45 - 140
Heptachlor	0.0333	0.0236		ug/L		71	34 - 140
Heptachlor epoxide	0.0333	0.0276		ug/L		83	37 - 142
Methoxychlor	0.0333	0.0274		ug/L		82	50 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*91*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*88*		*20 - 139*

Lab Sample ID: LCSD 570-604903/3-A
Matrix: Water
Analysis Batch: 607813

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 604903

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	0.0333	0.0250		ug/L		75	31 - 141	10	39
4,4'-DDE	0.0333	0.0242		ug/L		73	30 - 145	7	35
4,4'-DDT	0.0333	0.0245		ug/L		73	25 - 160	7	42
Aldrin	0.0333	0.0254		ug/L		76	42 - 140	3	35
alpha-BHC	0.0333	0.0263		ug/L		79	37 - 140	3	36
alpha-Chlordane	0.0333	0.0249	J	ug/L		75	45 - 140	8	35
beta-BHC	0.0333	0.0257		ug/L		77	17 - 147	4	44
delta-BHC	0.0333	0.0208		ug/L		63	19 - 140	5	52
Dieldrin	0.0333	0.0275		ug/L		82	36 - 146	6	49
Endosulfan I	0.0333	0.0265		ug/L		79	45 - 153	4	28
Endosulfan II	0.0333	0.0260		ug/L		78	1 - 202	9	53
Endosulfan sulfate	0.0333	0.0257		ug/L		77	26 - 144	8	38
Endrin	0.0333	0.0266		ug/L		80	30 - 147	8	48
Endrin aldehyde	0.0333	ND		ug/L		68	50 - 135	11	25
Endrin ketone	0.0333	0.0240		ug/L		72	60 - 140	9	30
gamma-BHC (Lindane)	0.0333	0.0263		ug/L		79	32 - 140	5	39
gamma-Chlordane	0.0333	0.0236		ug/L		71	45 - 140	9	35
Heptachlor	0.0333	0.0213		ug/L		64	34 - 140	10	43
Heptachlor epoxide	0.0333	0.0263		ug/L		79	37 - 142	5	26
Methoxychlor	0.0333	0.0252		ug/L		76	50 - 135	8	25

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 570-604903/3-A
Matrix: Water
Analysis Batch: 607813

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 604903

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	90		20 - 154
Tetrachloro-m-xylene (Surr)	85		20 - 139

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-604903/1-A
Matrix: Water
Analysis Batch: 605716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 604903

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.067		ug/L		07/31/25 04:45	08/01/25 14:40	1
Aroclor-1221	ND		0.067		ug/L		07/31/25 04:45	08/01/25 14:40	1
Aroclor-1232	ND		0.067		ug/L		07/31/25 04:45	08/01/25 14:40	1
Aroclor-1242	ND		0.067		ug/L		07/31/25 04:45	08/01/25 14:40	1
Aroclor-1248	ND		0.067		ug/L		07/31/25 04:45	08/01/25 14:40	1
Aroclor-1254	ND		0.067		ug/L		07/31/25 04:45	08/01/25 14:40	1
Aroclor-1260	ND		0.067		ug/L		07/31/25 04:45	08/01/25 14:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	89		20 - 154	07/31/25 04:45	08/01/25 14:40	1
Tetrachloro-m-xylene (Surr)	91		20 - 139	07/31/25 04:45	08/01/25 14:40	1

Lab Sample ID: LCS 570-604903/4-A
Matrix: Water
Analysis Batch: 605716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604903

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			0.133	0.158		ug/L		118	50 - 140		
Aroclor-1260			0.133	0.127		ug/L		95	8 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	84		20 - 154
Tetrachloro-m-xylene (Surr)	81		20 - 139

Lab Sample ID: LCSD 570-604903/5-A
Matrix: Water
Analysis Batch: 605716

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 604903

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor-1016			0.133	0.104	*1	ug/L		78	50 - 140	41	36
Aroclor-1260			0.133	0.0819	*1	ug/L		61	8 - 140	43	38

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	54		20 - 154
Tetrachloro-m-xylene (Surr)	56		20 - 139

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-606235/1-A
Matrix: Water
Analysis Batch: 616107

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606235

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		08/03/25 07:44	08/25/25 08:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*66*		*53 - 151*	*08/03/25 07:44*	*08/25/25 08:48*	*1*

Lab Sample ID: LCS 570-606235/2-A
Matrix: Water
Analysis Batch: 609590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606235

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			4000	4180		ug/L		104	65 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*105*		*53 - 151*

Lab Sample ID: LCS 570-606235/4-A
Matrix: Water
Analysis Batch: 616479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606235

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Crude Oil (C7-C44)			4000	3510		ug/L		88	43 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*72*		*53 - 151*

Lab Sample ID: LCSD 570-606235/3-A
Matrix: Water
Analysis Batch: 609590

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 606235

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			4000	4280		ug/L		107	65 - 129	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*106*		*53 - 151*

Lab Sample ID: LCSD 570-606235/5-A
Matrix: Water
Analysis Batch: 616479

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 606235

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Crude Oil (C7-C44)			4000	3290		ug/L		82	43 - 131	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*82*		*53 - 151*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-604915/5
Matrix: Water
Analysis Batch: 604915

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10		mg/L			07/31/25 10:10	1
Chloride	ND		1.0		mg/L			07/31/25 10:10	1
Fluoride	ND		0.10		mg/L			07/31/25 10:10	1
Sulfate	ND		1.0		mg/L			07/31/25 10:10	1

Lab Sample ID: LCS 570-604915/6
Matrix: Water
Analysis Batch: 604915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromide			5.00	4.77		mg/L		95	90 - 110		
Chloride			50.0	52.1		mg/L		104	90 - 110		
Fluoride			2.50	2.72		mg/L		109	90 - 110		
Sulfate			50.0	50.5		mg/L		101	90 - 110		

Lab Sample ID: LCSD 570-604915/7
Matrix: Water
Analysis Batch: 604915

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide			5.00	4.84		mg/L		97	90 - 110	2	15
Chloride			50.0	52.1		mg/L		104	90 - 110	0	15
Fluoride			2.50	2.73		mg/L		109	90 - 110	0	15
Sulfate			50.0	50.6		mg/L		101	90 - 110	0	15

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-8679/20
Matrix: Water
Analysis Batch: 8679

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			08/06/25 11:57	1

Lab Sample ID: MB 350-8679/21
Matrix: Water
Analysis Batch: 8679

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			08/06/25 12:01	1

Lab Sample ID: MB 350-8679/22
Matrix: Water
Analysis Batch: 8679

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			08/06/25 12:05	1

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: LCS 350-8679/23 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8679

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			5.00	4.61		ng/L		92	77 - 123		

Lab Sample ID: LCSD 350-8679/24 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8679

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			5.00	4.51		ng/L		90	77 - 123	2	24

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-8663/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:04	1
Cadmium	ND		0.020		ug/L		08/06/25 00:00	08/06/25 23:04	1
Chromium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Copper	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:04	1
Lead	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:04	1
Zinc	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Aluminum	ND		5.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Barium	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:04	1
Manganese	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:04	1
Selenium	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:04	1
Vanadium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1
Silver	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:04	1

Lab Sample ID: MB 350-8663/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:18	1
Cadmium	ND		0.020		ug/L		08/06/25 00:00	08/06/25 23:18	1
Chromium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Copper	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:18	1
Lead	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:18	1
Zinc	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Aluminum	ND		5.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Barium	ND		0.50		ug/L		08/06/25 00:00	08/06/25 23:18	1
Manganese	ND		0.050		ug/L		08/06/25 00:00	08/06/25 23:18	1
Selenium	ND		0.70		ug/L		08/06/25 00:00	08/06/25 23:18	1
Vanadium	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1
Silver	ND		1.0		ug/L		08/06/25 00:00	08/06/25 23:18	1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-8663/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	12.5	11.4		ug/L		91	70 - 130
Cadmium	1.25	1.24		ug/L		100	70 - 130
Chromium	12.5	12.1		ug/L		97	70 - 130
Copper	12.5	12.3		ug/L		99	70 - 130
Lead	2.50	2.63		ug/L		105	70 - 130
Zinc	12.5	12.7		ug/L		101	70 - 130
Aluminum	125	118		ug/L		94	70 - 130
Barium	12.5	11.9		ug/L		95	70 - 130
Manganese	12.5	12.1		ug/L		97	70 - 130
Selenium	12.5	11.6		ug/L		93	70 - 130
Vanadium	12.5	12.2		ug/L		98	70 - 130
Silver	6.25	5.94		ug/L		95	70 - 130

Lab Sample ID: LCSD 350-8663/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	11.3		ug/L		90	70 - 130	1	20
Cadmium	1.25	1.22		ug/L		98	70 - 130	2	20
Chromium	12.5	11.9		ug/L		95	70 - 130	1	20
Copper	12.5	12.1		ug/L		97	70 - 130	2	20
Lead	2.50	2.60		ug/L		104	70 - 130	1	20
Zinc	12.5	12.5		ug/L		100	70 - 130	1	20
Aluminum	125	121		ug/L		97	70 - 130	2	20
Barium	12.5	12.0		ug/L		96	70 - 130	1	20
Manganese	12.5	12.2		ug/L		98	70 - 130	0	20
Selenium	12.5	11.7		ug/L		94	70 - 130	1	20
Vanadium	12.5	12.6		ug/L		101	70 - 130	3	20
Silver	6.25	6.06		ug/L		97	70 - 130	2	20

Lab Sample ID: MB 350-8770/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		6.0	ug/L		08/11/25 00:00	08/11/25 22:44	1

Lab Sample ID: LCS 350-8770/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	62.5	56.7		ug/L		91	70 - 130

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCSD 350-8770/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron			62.5	59.5		ug/L		95	70 - 130	5	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 570-607221/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		2.0		mg/L			08/06/25 14:54	1
Iron	ND		0.50		mg/L			08/06/25 14:54	1
Lithium	ND		0.050		mg/L			08/06/25 14:54	1
Magnesium	ND		0.50		mg/L			08/06/25 14:54	1
Potassium	ND		2.0		mg/L			08/06/25 14:54	1
SiO2	ND		0.54		mg/L			08/06/25 14:54	1
Sodium	ND		2.0		mg/L			08/06/25 14:54	1
Strontium	ND		0.010		mg/L			08/06/25 14:54	1

Lab Sample ID: LCS 570-607221/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium			2.50	2.59		mg/L		104	80 - 120		
Iron			0.500	0.526		mg/L		105	80 - 120		
Lithium			0.500	0.512		mg/L		102	80 - 120		
Magnesium			2.50	2.63		mg/L		105	80 - 120		
Potassium			5.00	5.07		mg/L		101	80 - 120		
SiO2			5.38	5.61		mg/L		104	80 - 120		
Sodium			5.00	5.12		mg/L		102	80 - 120		
Strontium			0.500	0.507		mg/L		101	80 - 120		

Lab Sample ID: LCSD 570-607221/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium			2.50	2.56		mg/L		102	80 - 120	1	20
Iron			0.500	0.511		mg/L		102	80 - 120	3	20
Lithium			0.500	0.505		mg/L		101	80 - 120	1	20
Magnesium			2.50	2.52		mg/L		101	80 - 120	4	20
Potassium			5.00	4.98		mg/L		100	80 - 120	2	20
SiO2			5.38	5.42		mg/L		101	80 - 120	3	20
Sodium			5.00	5.01		mg/L		100	80 - 120	2	20
Strontium			0.500	0.495		mg/L		99	80 - 120	3	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-605232/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 605575

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L			07/31/25 18:16	1

Lab Sample ID: LCS 570-605232/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 605575

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Uranium			80.0	83.1		ug/L		104	80 - 120		

Lab Sample ID: LCSD 570-605232/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 605575

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium			80.0	81.2		ug/L		101	80 - 120	2	20

Lab Sample ID: 380-163150-1 MS — **Client Sample ID: Well 14 Step**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 605575

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Uranium	ND	F1	80.0	112	F1	ug/L		130	75 - 125		

Lab Sample ID: 380-163150-1 MSD — **Client Sample ID: Well 14 Step**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 605575

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium	ND	F1	80.0	110	F1	ug/L		128	75 - 125	1	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-604407/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604665 — **Prep Batch: 604407**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0		mg/L		07/30/25 08:16	07/30/25 14:22	1

Lab Sample ID: LCS 570-604407/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604665 — **Prep Batch: 604407**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
HEM: Oil and Grease			40.0	34.70		mg/L		87	78 - 114		

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 570-604407/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604665 — **Prep Batch: 604407**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease			40.0	35.80		mg/L		90	78 - 114	3	18

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-612224/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612666 — **Prep Batch: 612224**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		08/15/25 13:33	08/16/25 14:12	1

Lab Sample ID: LCS 570-612224/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612666 — **Prep Batch: 612224**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Kjeldahl Nitrogen			5.00	4.93		mg/L		99	90 - 110		

Lab Sample ID: LCSD 570-612224/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612666 — **Prep Batch: 612224**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen			5.00	4.94		mg/L		99	90 - 110	0	20

Lab Sample ID: 380-163150-1 MS — **Client Sample ID: Well 14 Step**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612666 — **Prep Batch: 612224**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Kjeldahl Nitrogen	0.59		5.00	5.29		mg/L		94	90 - 110		

Lab Sample ID: 380-163150-1 MSD — **Client Sample ID: Well 14 Step**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612666 — **Prep Batch: 612224**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	0.59		5.00	5.81		mg/L		104	90 - 110	9	20

Method: 410.4 - COD

Lab Sample ID: MB 570-609499/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609525 — **Prep Batch: 609499**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L		08/10/25 08:18	08/10/25 11:17	1

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 570-609499/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609525 — **Prep Batch: 609499**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	50.0	49.3		mg/L		99	90 - 110

Lab Sample ID: LCSD 570-609499/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609525 — **Prep Batch: 609499**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	50.0	51.2		mg/L		102	90 - 110	4	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 570-609853/11 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609853

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		5.0	mg/L			08/10/25 18:20	1
Bicarbonate (as CaCO3)	ND		5.0	mg/L			08/10/25 18:20	1
Carbonate (as CaCO3)	ND		5.0	mg/L			08/10/25 18:20	1
Hydroxide (as CaCO3)	ND		5.0	mg/L			08/10/25 18:20	1

Lab Sample ID: LCS 570-609853/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total (As CaCO3)	106	106		mg/L		100	78 - 110

Lab Sample ID: LCSD 570-609853/10 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609853

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	106	97.5		mg/L		92	78 - 110	9	10

Method: SM 2520B - Salinity

Lab Sample ID: LCS 570-609968/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609968

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Salinity	35.0	36.6		psu		105	95 - 105

Lab Sample ID: LCSD 570-609968/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609968

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Salinity	35.0	36.5		psu		104	95 - 105	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-605846/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605846

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			08/01/25 15:44	1

Lab Sample ID: LCS 570-605846/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605846

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	1000		mg/L		100	85 - 110		

Lab Sample ID: LCSD 570-605846/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605846

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	984		mg/L		98	85 - 110	2	10

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-730298/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 730808 — **Prep Batch: 730298**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	0.02629	U	0.524	0.524	4.00	0.928	pCi/L	08/04/25 08:09	08/06/25 18:18	1

Lab Sample ID: LCSB 160-730298/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 730808 — **Prep Batch: 730298**

Analyte			Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Beta			69.4	72.65		7.80	4.00	0.926	pCi/L	105	75 - 125		

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-730073/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732146 — **Prep Batch: 730073**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.05757	U	0.139	0.139	1.00	0.185	pCi/L	08/01/25 09:27	08/15/25 07:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*30 - 110*	*08/01/25 09:27*	*08/15/25 07:47*	*1*

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-730073/2-A
Matrix: Water
Analysis Batch: 732002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 730073

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.959		1.33	1.00	0.266	pCi/L	104	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.3*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-730074/1-A
Matrix: Water
Analysis Batch: 732004

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 730074

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2592	U	0.342	0.343	1.00	0.571	pCi/L	08/01/25 09:31	08/14/25 12:01	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*30 - 110*	*08/01/25 09:31*	*08/14/25 12:01*	*1*
Y Carrier	*83.7*		*30 - 110*	*08/01/25 09:31*	*08/14/25 12:01*	*1*

Lab Sample ID: LCS 160-730074/2-A
Matrix: Water
Analysis Batch: 732004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 730074

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.16	10.38		1.39	1.00	0.562	pCi/L	113	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.3*		*30 - 110*
Y Carrier	*82.2*		*30 - 110*

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-730442/1-A
Matrix: Water
Analysis Batch: 732445

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 730442

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	-0.1749	U	0.132	0.133	3.00	0.272	pCi/L	08/04/25 11:23	08/18/25 15:05	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*79.3*		*30 - 110*	*08/04/25 11:23*	*08/18/25 15:05*	*1*
Y Carrier	*93.5*		*30 - 110*	*08/04/25 11:23*	*08/18/25 15:05*	*1*

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: LCS 160-730442/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732445 — **Prep Batch: 730442**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Strontium-90			6.94	6.252		0.681	3.00	0.226	pCi/L	90	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*81.4*		*30 - 110*
Y Carrier	*96.8*		*30 - 110*

Lab Sample ID: LCSD 160-730442/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 732445 — **Prep Batch: 730442**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Strontium-90			6.94	6.441		0.697	3.00	0.250	pCi/L	93	75 - 125	3	25

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Sr Carrier	*84.7*		*30 - 110*
Y Carrier	*93.5*		*30 - 110*

Method: SM7110C - Gross Alpha by Co-Precipitation

Lab Sample ID: MB 160-730803/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 730988 — **Prep Batch: 730803**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.9634		0.792	0.800	3.00	0.742	pCi/L	08/06/25 08:27	08/07/25 15:35	1

Lab Sample ID: LCS 160-730803/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 730988 — **Prep Batch: 730803**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Alpha			39.6	45.56		6.26	3.00	0.576	pCi/L	115	80 - 120		

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

GC/MS Semi VOA

Prep Batch: 604602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	625.1	
MB 570-604602/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-604602/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-604602/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 607169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	625.1	604602
MB 570-604602/1-A	Method Blank	Total/NA	Water	625.1	604602
LCS 570-604602/2-A	Lab Control Sample	Total/NA	Water	625.1	604602
LCSD 570-604602/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	604602

Prep Batch: 680097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	625.1	
MB 410-680097/1-A	Method Blank	Total/NA	Water	625.1	
LCS 410-680097/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 410-680097/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 680397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	625.1 SIM	680097
MB 410-680097/1-A	Method Blank	Total/NA	Water	625.1 SIM	680097
LCS 410-680097/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	680097
LCSD 410-680097/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	680097

GC Semi VOA

Prep Batch: 604903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	608	
MB 570-604903/1-A	Method Blank	Total/NA	Water	608	
LCS 570-604903/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 570-604903/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-604903/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 570-604903/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 605716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	608.3	604903
MB 570-604903/1-A	Method Blank	Total/NA	Water	608.3	604903
LCS 570-604903/4-A	Lab Control Sample	Total/NA	Water	608.3	604903
LCSD 570-604903/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	604903

Prep Batch: 606235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	3510C	
MB 570-606235/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-606235/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 570-606235/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-606235/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 606235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-606235/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 607813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-604903/1-A	Method Blank	Total/NA	Water	608.3	604903
LCS 570-604903/2-A	Lab Control Sample	Total/NA	Water	608.3	604903
LCSD 570-604903/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	604903

Analysis Batch: 609473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	608.3	604903

Analysis Batch: 609590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-606235/2-A	Lab Control Sample	Total/NA	Water	8015B	606235
LCSD 570-606235/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	606235

Analysis Batch: 616107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	8015B	606235
MB 570-606235/1-A	Method Blank	Total/NA	Water	8015B	606235

Analysis Batch: 616479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-606235/4-A	Lab Control Sample	Total/NA	Water	8015B	606235
LCSD 570-606235/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	606235

HPLC/IC

Analysis Batch: 604915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	300.0	
380-163150-1 - DL	Well 14 Step	Total/NA	Water	300.0	
MB 570-604915/5	Method Blank	Total/NA	Water	300.0	
LCS 570-604915/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-604915/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 8663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Dissolved	Water	1640	
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	1631E	
MB 350-8679/20	Method Blank	Total/NA	Water	1631E	
MB 350-8679/21	Method Blank	Total/NA	Water	1631E	

Metals (Continued)

Analysis Batch: 8679 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-8679/22	Method Blank	Total/NA	Water	1631E	
LCS 350-8679/23	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-8679/24	Lab Control Sample Dup	Total/NA	Water	1631E	

Analysis Batch: 8697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Dissolved	Water	1640	8663
380-163150-1	Well 14 Step	Dissolved	Water	1640	8663
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	8663
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	8663
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	8663
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	8663

Prep Batch: 8770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Dissolved	Water	1640	
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Dissolved	Water	1640	8770
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	8770
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	8770
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	8770

Filtration Batch: 605232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Dissolved	Water	Filtration	
MB 570-605232/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-605232/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-605232/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	
380-163150-1 MS	Well 14 Step	Dissolved	Water	Filtration	
380-163150-1 MSD	Well 14 Step	Dissolved	Water	Filtration	

Analysis Batch: 605575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Dissolved	Water	6020	605232
MB 570-605232/1-A	Method Blank	Dissolved	Water	6020	605232
LCS 570-605232/2-A	Lab Control Sample	Dissolved	Water	6020	605232
LCSD 570-605232/3-A	Lab Control Sample Dup	Dissolved	Water	6020	605232
380-163150-1 MS	Well 14 Step	Dissolved	Water	6020	605232
380-163150-1 MSD	Well 14 Step	Dissolved	Water	6020	605232

Filtration Batch: 607221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Dissolved	Water	Filtration	
MB 570-607221/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Metals

Analysis Batch: 607956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-607221/1-A	Method Blank	Dissolved	Water	6010D	607221
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	6010D	607221
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	6010D	607221

Analysis Batch: 608018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Dissolved	Water	6010D	607221
380-163150-1	Well 14 Step	Dissolved	Water	6010D	607221

General Chemistry

Prep Batch: 604407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	1664A	
MB 570-604407/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-604407/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-604407/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 604665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	1664A	604407
MB 570-604407/1-A	Method Blank	Total/NA	Water	1664A	604407
LCS 570-604407/2-A	Lab Control Sample	Total/NA	Water	1664A	604407
LCSD 570-604407/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	604407

Analysis Batch: 605846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	SM 2540C	
MB 570-605846/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-605846/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-605846/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Prep Batch: 609499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	410.4	
MB 570-609499/3-A	Method Blank	Total/NA	Water	410.4	
LCS 570-609499/4-A	Lab Control Sample	Total/NA	Water	410.4	
LCSD 570-609499/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 609525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	410.4	609499
MB 570-609499/3-A	Method Blank	Total/NA	Water	410.4	609499
LCS 570-609499/4-A	Lab Control Sample	Total/NA	Water	410.4	609499
LCSD 570-609499/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	609499

Analysis Batch: 609853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	SM 2320B	
MB 570-609853/11	Method Blank	Total/NA	Water	SM 2320B	
LCS 570-609853/9	Lab Control Sample	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 609853 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-609853/10	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 609968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	SM 2520B	
LCS 570-609968/3	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 570-609968/4	Lab Control Sample Dup	Total/NA	Water	SM 2520B	

Prep Batch: 612224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	351.2	
MB 570-612224/3-A	Method Blank	Total/NA	Water	351.2	
LCS 570-612224/4-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-612224/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	
380-163150-1 MS	Well 14 Step	Total/NA	Water	351.2	
380-163150-1 MSD	Well 14 Step	Total/NA	Water	351.2	

Analysis Batch: 612666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	351.2	612224
MB 570-612224/3-A	Method Blank	Total/NA	Water	351.2	612224
LCS 570-612224/4-A	Lab Control Sample	Total/NA	Water	351.2	612224
LCSD 570-612224/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	612224
380-163150-1 MS	Well 14 Step	Total/NA	Water	351.2	612224
380-163150-1 MSD	Well 14 Step	Total/NA	Water	351.2	612224

Rad

Prep Batch: 730073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	PrecSep-21	
MB 160-730073/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-730073/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 730074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	PrecSep_0	
MB 160-730074/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-730074/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 730298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	Evaporation	
MB 160-730298/1-A	Method Blank	Total/NA	Water	Evaporation	
LCSB 160-730298/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

Prep Batch: 730442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	PrecSep-7	
MB 160-730442/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-730442/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	

Rad (Continued)

Prep Batch: 730442 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 160-730442/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-7	

Prep Batch: 730803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163150-1	Well 14 Step	Total/NA	Water	Coprecipitation	
MB 160-730803/1-A	Method Blank	Total/NA	Water	Coprecipitation	
LCS 160-730803/2-A	Lab Control Sample	Total/NA	Water	Coprecipitation	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163150-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	625.1			604602	OAJ3	EET CAL 4	07/30/25 12:37
Total/NA	Analysis	625.1		1	607169	AX7Z	EET CAL 4	08/05/25 17:54
Total/NA	Prep	625.1			680097	QKX3	ELLE	08/04/25 07:39
Total/NA	Analysis	625.1 SIM		1	680397	TB8M	ELLE	08/04/25 20:53
Total/NA	Prep	608			604903	H1SH	EET CAL 4	07/31/25 04:47
Total/NA	Analysis	608.3		1	609473	N5Y3	EET CAL 4	08/10/25 08:07
Total/NA	Prep	608			604903	H1SH	EET CAL 4	07/31/25 04:47
Total/NA	Analysis	608.3		1	605716	P2HW	EET CAL 4	08/01/25 16:16
Total/NA	Prep	3510C			606235	TVD6	EET CAL 4	08/03/25 07:45
Total/NA	Analysis	8015B		1	616107	H6FE	EET CAL 4	08/25/25 09:52
Total/NA	Analysis	300.0		40	604915	U9EE	EET CAL 4	07/31/25 10:59
Total/NA	Analysis	300.0	DL	500	604915	U9EE	EET CAL 4	07/31/25 11:42
Total/NA	Analysis	1631E		1	8679	AJD	EET SSM	08/06/25 16:38
Dissolved	Prep	1640			8663	V1R	EET SSM	08/06/25 00:00
Dissolved	Analysis	1640		1	8697	CL	EET SSM	08/07/25 02:49
Dissolved	Prep	1640			8663	V1R	EET SSM	08/06/25 00:00
Dissolved	Analysis	1640		10	8697	CL	EET SSM	08/07/25 11:45
Dissolved	Prep	1640			8770	V1R	EET SSM	08/11/25 00:00
Dissolved	Analysis	1640		1	8836	V1R	EET SSM	08/12/25 01:33
Dissolved	Filtration	Filtration			607221	F4JD	EET CAL 4	08/05/25 18:29
Dissolved	Analysis	6010D		20	608018	P1R	EET CAL 4	08/06/25 14:27
Dissolved	Filtration	Filtration			607221	F4JD	EET CAL 4	08/05/25 18:29
Dissolved	Analysis	6010D		5	608018	P1R	EET CAL 4	08/06/25 14:29
Dissolved	Filtration	Filtration			605232	PNB2	EET CAL 4	07/31/25 14:46
Dissolved	Analysis	6020		20	605575	C0YH	EET CAL 4	07/31/25 18:23
Total/NA	Prep	1664A			604407	S7HP	EET CAL 4	07/30/25 13:50
Total/NA	Analysis	1664A		1	604665	LM3A	EET CAL 4	07/30/25 14:22
Total/NA	Prep	351.2			612224	ZL7L	EET CAL 4	08/15/25 13:33
Total/NA	Analysis	351.2		1	612666	ZL7L	EET CAL 4	08/16/25 14:13
Total/NA	Prep	410.4			609499	TP6R	EET CAL 4	08/10/25 08:18
Total/NA	Analysis	410.4		1	609525	TP6R	EET CAL 4	08/10/25 11:18
Total/NA	Analysis	SM 2320B		1	609853	LNW3	EET CAL 4	08/10/25 19:07
Total/NA	Analysis	SM 2520B		1	609968	GG0B	EET CAL 4	08/11/25 14:18
Total/NA	Analysis	SM 2540C		1	605846	S7PH	EET CAL 4	08/01/25 15:44
Total/NA	Prep	Evaporation			730298	OGC	EET SL	08/04/25 08:09
Total/NA	Analysis	900.0		1	730865	FLC	EET SL	08/06/25 18:28
Total/NA	Prep	PrecSep-21			730073	JTR	EET SL	08/01/25 09:27
Total/NA	Analysis	903.0		1	733501	SWS	EET SL	08/25/25 07:43
Total/NA	Prep	PrecSep_0			730074	JTR	EET SL	08/01/25 09:31
Total/NA	Analysis	904.0		1	732004	FLC	EET SL	08/14/25 12:02
Total/NA	Prep	PrecSep-7			730442	BMW	EET SL	08/04/25 11:23
Total/NA	Analysis	905		1	732445	SWS	EET SL	08/18/25 15:05
Total/NA	Analysis	Ra226_Ra228 Pos		1	733296	SCB	EET SL	08/22/25 16:33

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Client Sample ID: Well 14 Step

Date Collected: 07/28/25 09:30
Date Received: 07/29/25 09:56

Lab Sample ID: 380-163150-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	Coprecipitation			730803	OGC	EET SL	08/06/25 08:27
Total/NA	Analysis	SM7110C		1	730988	SWS	EET SL	08/07/25 15:36

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	08-27-25
A2LA	Dept. of Energy	0001.01	08-27-25
A2LA	ISO/IEC 17025	0001.01	08-27-25
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-07-25
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	08-27-25
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	08-10-25
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA011	08-11-25
New York	NELAP	10670	09-09-25
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	09-01-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	08-24-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	09-03-25
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	08-27-25

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-08-26
Florida	NELAP	E87575	06-30-26
Louisiana (All)	NELAP	03073	07-01-26
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-26
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167-008	07-08-26
US Fish & Wildlife	US Federal Programs	A20571	06-30-26
USDA	US Federal Programs	525-23-4-22573	01-24-28
Washington	State	C788-23a	07-13-26
Wisconsin	State	399133460	08-31-26

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25 *
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-10-25
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	12-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25 *
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Method	Method Description	Protocol	Laboratory
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	ELLE
608.3	Organochlorine Pesticides in Water	EPA	EET CAL 4
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1640	Metals (ICPMS)	EPA	EET SSM
6010D	Metals (ICP)	SW846	EET CAL 4
6020	Metals (ICP/MS)	SW846	EET CAL 4
1664A	HEM and SGT-HEM	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
410.4	COD	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EET CAL 4
SM 2520B	Salinity	SM	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
SM7110C	Gross Alpha by Co-Precipitation	SM	EET SL
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
410.4	COD	EPA	EET CAL 4
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	ELLE
Coprecipitation	Preparation, Coprecipitation	None	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
Filtration	Sample Filtration	None	EET CAL 4
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-163150-1
SDG: Well 14 Step

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-163150-1	Well 14 Step	Water	07/28/25 09:30	07/29/25 09:56	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No.
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M Hexane
N - None
O - AsNaO2
P - Na2O4S
Q Na2SO3
R - Na2S2O3
S H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W pH 4-5
Y Trizma
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300, SM2520B, SM4500_SiO2 Br, Cl, F, SO4, Si, Salinity, Alkalinity	351 2- Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900 0 - Gross Beta Only	903.0 Ra226, 905_Sr90	904.0 - Radium-228	Ra226_228GFPC_P - Local Method	1640 - dissolved Metals (15) Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Sn, Ag, V, Zn	1631E - Dissolved Mercury, Total	6010D - Dissolved Metals (6) Ca, Fe, Li, Mg, K, Na, Sr	Total Number of containers	Special Instructions/Note. x = testing comes from another container
			Preservation Code:				N	S	S	S	D	D	D	D	N	D	A	D		
Well 14 Stg	7/28/25	9:30	G	Saltwater			2	1	1	3	1	1	2	1	0	1	1	1	34	Samples not field filtered. Please filter in lab as necessary
			~~G~~	~~Saltwater~~			~~2~~	~~1~~	~~1~~	~~3~~	~~1~~	~~1~~	~~2~~	~~1~~	~~0~~	~~1~~	~~1~~	~~1~~	~~34~~	~~Samples not field filtered. Please filter in lab as necessary~~ ZZ

380-163150 COC

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements. 3919 1602 8362

Empty Kit Relinquished by:	Date:	Time	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Jordan Moniuszko	7/28/25 2:00	INTERA Inc	[illegible]	7/28/25 0956	[illegible]

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 4.8 - 0.2 = 4.6 ice (730A)

Ver: 01/16/2019

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J DI Water
K EDTA
L - EDA
M - Hexane
N None
O AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	625 1 SVOCs	8015B/8260D_Hawaii GRO C4-12	8015B_Hawaii DRO C8-24, CRO C24-44	1664A Oil and Grease	608 3 Organochlorine Pesticides	608.3 PCBs	625 1 Sim 1,4-dioxane	8011 Ethylene Dibromide	8015C Ethylene Glycol	908 Isotopic Uranium	Total Number of containers	Special Instructions/Note. x = testing comes from another container.
			Preservation Code:				N	A	N	A	N	S	N	N	N	A	N	D		
Well 14 Step	7/28/25	9.30	G	Saltwater			1	3	1	2	2	1	1	1	2	2	2	1	34	Samples not field filtered. Please filter in lab as necessary.
			G	Saltwater			1	3	1	2	2	1	1	1	2	2	2	1	34	Samples not field filtered. Please filter in lab as necessary
																				22

Extra Volume Please hold

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II, III IV, Other (specify)

Special Instructions/QC Requirements: 3919 1602 8362

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Jordan Moniuszko	7/28/25 2.00	INTERA Inc	PM	7/28/25 0996	EEAP

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: 4.8-0.2=4.6 ICE (290A)

Ver: 01/16/2019

Shipping Summary

eurofins | Environment Testing

S380-89100

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone (626) 386-1100

Bottle Order Information

Bottle Order: *Kalealoa Desalination Project (11 sets)*
Bottle Order # *26842*
Request From Client: *6/6/2025*
Date Order Posted: *6/9/2025 9 59 19AM*
Order Status *Shipped*
Prepared By *Maria Lopez*
Deliver By Date: ***6/13/2025 11:59:00PM***

When To Ship:

Project/Event Information

Project Manager: *Maria Lopez*
Em. Maria.Lopez@et.eurofinsus com
Lab Project Number. *38009251*
Project Ref *Kalealoa Desalination Project*
Event Desc

Page 54 of 69

Client Samples

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	2	Plastic 250ml - unpreserved		None	300_ORGFM_28D - Anions Full List 2320B - Alkalinity - All Forms SM2520_B - Salinity	Water Water Water	Calscl
11	1	Amber Glass 1 liter - Sulfuric Acid		Sulfuric Acid	351.2 - Total Kjeldahl Nitrogen (TKN)	Water	"
11	1	Plastic 250ml - with Sulfuric Acid		Sulfuric Acid	410 4_LL - Low Level Chemical Oxygen Demand (COD)	Water	"
11	3	~~Voa Vial 40mL Amber - H2SO4~~		Sulfuric Acid	~~SM5310D - Total Organic Carbon (TOC)~~	Water	
11	1	Plastic 500ml - with Nitric Acid		Nitric Acid	SM7110C - Gross Alpha by Co-Precip	Water	Stil
11	1	Plastic 500ml - with Nitric Acid		Nitric Acid	900 0 - Gross Beta Only	Water	"

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

9/15/2025

Shipping Summary

Client Samples

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	2	Plastic 1 liter - Nitric Acid		Nitric Acid	903 0 - Radium-226 905_Sr90 - Strontium-90	Water Water	Stic
11	1	Plastic 1 liter - Nitric Acid		Nitric Acid	904 0 - Radium-228	Water	"
11	1	Plastic 250ml - unpreserved	Yes	None	1640 - Al, As,Ba,Cd,Cr,Cu,Fe,Pb,Mn,Se,Sr,Ag, U,V	Water	Special
11	1	Clear Glass 250ml - HCL	Yes	Hydrochloric Acid	1631E - Mercury, Total	Water	"
11	1	Plastic 250ml - unpreserved	Yes	None	6010D - Ca,Fe, Li,Mg,K,Na	Water	Calsci
11	3	~~Voa Vial 40mL Amber - Hydrochloric Acid~~		Hydrochloric Acid	~~624 1 - (MOD) Routine w/Adds w/ A/A w/2-CEVE (3-~~	Water	
11	3	Amber Glass 1 liter - unpreserved		None	625 1 - (MOD) Routine Semivolatiles List 608 3_Pest - Routine Pesticides List 608.3_PCB - Routine PCB Aroclor List	Water Water Water	Calsci
11	2	Voa Vial 40ml - Hydrochloric Acid		Hydrochloric Acid	~~8015B_GRO - Gasoline Range Organics~~	Water	
11	1	~~Amber Glass 250ml - unpreserved~~		None	~~8015B_DRO - DRO (C10-C28)~~	Water	Calsci
11	1	Amber Glass 1 liter - Sulfuric Acid		Sulfuric Acid	1664A - Oil & Grease	Water	"
11	2	Amber Glass 250ml - unpreserved		None	625 1_SIM_PREC - (MOD) Local Method	Water	Ellt
11	2	~~Voa Vial 40ml - Hydrochloric Acid~~		Hydrochloric Acid	~~8011 - (MOD) Custom Analyte List~~	Water	
11	2	Plastic 125mL - unpreserved		None	1633_Final - Standard List	Water	
11	2	Voa Vial 40ml - unpreserved		None	~~8015C_DAI_GLY - (MOD) Custom Analyte List~~	Water	
11	0	No Container		None	Nitrogen,Total - Total Nitrogen	Water	

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Shipping Summary

Client Samples:

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	1	Amber Glass 250ml - unpreserved		None	8015B_DRO - Crude Oil (C7-C44)	Water	Calsci

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Shipping Summary

eurofins | Environment Testing

S380-89391

Eurofins Hawaii Service Center
111 Sand Island Access Rd, Unit R-10
Honolulu, HI 96819

Bottle Order Information

Bottle Order *TDS (11 sites)*
Bottle Order # *26952*
Request From Client: *6/13/2025*
Date Order Posted *6/13/2025 10.47 12AM*
Order Status. *Shipped*
Prepared By *Maria Lopez*
Deliver By Date: ***6/16/2025 11:59:00PM***

When To Ship:

Project/Event Information

Project Manager: *Maria Lopez*
Em *Maria.Lopez@et.eurofinsus.com*
Lab Project Number *38009251*
Project Ref: *Kalealoa Desalination Project*
Event Desc

Client Samples

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	1	Plastic 250ml - unpreserved		None	2540C_Calcd - Total Dissolved Solids (TDS)	Water	

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-236027.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-163150-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/25/2025			Preservation Codes: -
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM7110C/COPRECIPGross Alpha by Co-Precip	900.0/EvaporationGross Beta Only	903.0/PrecSep_21Radium-226	904.0/PrecSep_0Radium-228	Ra226_228GFPC_P	905_Sr90/PrecSep_7Strontium-90	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
Well 14 Step (380-163150-1)	7/28/25	09:30 Hawaiian	G	Water			X	X	X	X	X	X	6	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Guillermo V	7.30.25 7:45		M. Pinette	JUL 3 1 2025 0830	
Relinquished by:	Date/Time:	Company	Received by: Meadow Pinette	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-236026.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-163150-1
Address: 5755 8th Street East, ,	Due Date Requested: 8/25/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total										Total Number of containers	Special Instructions/Note:
			Preservation Code:																
Well 14 Step (380-163150-1)	7/28/25	09:30 Hawaiian	G	Water			X	X											High TDS sample, dilute accordingly

Mol Blue

Therm. ID: SC03 Cust. Seal: (Y) / N
Uncorr./Corr. Temp: 0.2/0.1 °C
Delivery: UPS / (FedEx) / Other: ____
Ice Type: Blue / Dry / (Wet) / None
Label Ver.: ____ Packing: B

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:	
Relinquished by: Guillermo	Date/Time: 7.30.25 9:32	Company	Received by:		Date/Time: 7/31/25 9:41	Company PST
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-236020.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-163150-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/25/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: ~~717-656-2300(Tel)~~	PO #: ~~N/A~~			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
Well 14 Step (380-163150-1)	7/28/25	09:30 Hawaiian	G	Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Guillermo	7.30.25 8:20				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 07/31/25 0950	Company: ELLISE

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R 1.7 / C 1.7 AP

Ver: 10/10/2024

9/15/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Loc: 380 | Em 163150

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-236012.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-163150-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/25/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kaiealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	608.3_PCB/608_Prep_PCBRoutine PCB Aroclor List	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	Nitrogen,Total/Total Nitrogen	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	8015B_DRO/3510C_LVIDRO (C10-C28)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	2540C_CalcdTotal Dissolved Solids (TDS)	6010D/3005A(MOD) Custom 6010D Metals List	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
Well 14 Step (380-163150-1)	7/28/25	09:30 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	12	High TDS sample, dilute accordingly

380-163150 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 7/30/25 1050	Company EEA	Received by:	Date/Time: 7/30/25 10:50	Company EEA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.3 / 1.6 SCG		

Ver: 10/10/2024

eurofins | Environment Testing

Date:	7/31/2025
End Time:	13:58
KI Paper Lot:	na
Analyst:	[illegible]
Pipette:	NP

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0 2N)	104127
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-163150-K-1	P	Y	5 2	ND

eurofins | Environment Testing

Date:	7/31/2025
End Time:	13:15
pH Paper Lot:	hc457151
Analyst:	VR
Pipette:	NA

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	na
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-163150-J-1	02	NA	NA	NA	NA

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163150-1
SDG Number: Well 14 Step

Login Number: 163150
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163150-1
SDG Number: Well 14 Step

Login Number: 163150
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 07/30/25 12:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163150-1
SDG Number: Well 14 Step

Login Number: 163150
List Number: 6
Creator: Le, Sunny

List Source: Eurofins Calscience
List Creation: 08/06/25 09:55 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163150-1
SDG Number: Well 14 Step

Login Number: 163150
List Number: 5
Creator: Perez, Alexander

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 07/31/25 05:10 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163150-1
SDG Number: Well 14 Step

Login Number: 163150
List Number: 4
Creator: Miller, Darren R

List Source: Eurofins Seattle Specialty Metals
List Creation: 07/31/25 02:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-163150-1
SDG Number: Well 14 Step

Login Number: 163150
List Number: 3
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 07/31/25 11:29 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Docusign Envelope ID: 87D939AD-9CF9-4528-91D8-0C9CCA99D334

ICA Labs Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.icalabs.com

Jordan Moniuszko
INTERA
74 Kihapai St
Kailua, HI 96734
USA

Dear Jordan,

Shipment sent for radiocarbon (^{14}C) dating analysis and arrived at ICA Labs on August 13th, 2025. Each of the samples was processed through the 3 main steps required to prepare a sample for AMS analysis: Pretreatment, Combustion or Acid Digestion, and Reduction (Graphitization). Accelerator Mass Spectrometry was used for radiocarbon analysis, and results are provided in this Report.

Radiocarbon results were provided on August 25th, but the report did not include the $\Delta^{13}C$ results. This report includes the $\Delta^{13}C$ results.

The first section of the Report includes the results for any samples submitted and for the Quality Control samples analyzed in parallel with the sample. Quality Control results in this report met acceptance criteria. The later part of the Report includes a Summary of Methods that provides some context on protocols used.

The Team at ICA Labs appreciates you for trusting us with your samples. Please reach out if there are any questions.

Sincerely,

Signed by:
Ricky Diaz
8ACC8E1173CD446...

9/24/2025

Docusign Envelope ID: 87D939AD-9CF9-4528-91D8-0C9CCA99D334

ICA Labs Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.icalabs.com

^{14}C AMS Report

Submitter Name: Jordan Moniuszko
Company Name: INTERA
Address: 74 Kihapai St
Kailua, HI 96734
USA
Date Received: August 13th, 2025
Date Reported: August 25th, 2025 for ^{14}C and September 24th for ^{13}C
Project #: Kalaeloa Desalination

ICA ID	Submitter ID	Material Type	Pretreatment	δ^{13}C (o/oo)	Conventional Age	Calibrated Age
14C-10283	Well 15 120 Hr	Water	DIC	-16.01	**2800 +/- 30 BP**	**Cal 1050 - 1030 BC (1.6%) Cal 1020 - 890 BC (88.2%) Cal 880 - 840 BC (5.7%)**
14C-10284	Well 15 120 Hr Dup	Water	DIC	-18.63	**2630 +/- 30 BP**	**Cal 890 - 880 BC (0.7%) Cal 840 - 770 BC (94.8%)**
14C-10285	MW1	Water	DIC	-14.13	**5360 +/- 40 BP**	**Cal 4330 - 4150 BC (65.5%) Cal 4140 - 4050 BC (29.9%)**
14C-10286	MW2	Water	DIC	-14.23	**5170 +/- 30 BP**	**Cal 4050 - 3940 BC (94.7%) Cal 3840 - 3820 BC (0.8%)**
14C-10287	Well 14 Step	Water	DIC	-18.22	**2520 +/- 30 BP**	**Cal 790 - 720 BC (25.7%) Cal 710 - 540 BC (69.8%)**
14C-10288	Well 14 120 Hr	Water	DIC	-16.26	**2530 +/- 30 BP**	**Cal 800 - 730 BC (30.3%) Cal 700 - 540 BC (65.1%)**
14C-10289	Well 14 EB	Water	DIC	-25.82	**730 +/- 30 BP**	**Cal 1220 - 1310 AD (92.4%) Cal 1360 - 1380 AD (3.1%)**
14C-10290	Well 13 Step	Water	DIC	-17.62	**2820 +/- 30 BP**	**Cal 1110 - 1090 BC (0.5%) Cal 1080 - 890 BC (94.9%)**
14C-10291	Well 13 Step Dup	Water	DIC	-17.36	**2700 +/- 30 BP**	**Cal 910 - 800 BC**

Quality Control Results

QC #	Quality Control Material	Acceptance Criteria	Measured Value
Wheel QC 1	**IAEA C7**	49.53 +/- 0.70 pMC	49.30 +/- 0.20 pMC
Wheel QC 2	**IAEA C5**	23.05 +/- 0.70 pMC	23.27 +/- 0.10 pMC
All Quality Control Analyses Pass Acceptance Criteria			

Summary of Methods

Pretreatment

- **Acid/Alkali/Acid (AAA):** Also known as ABA (Acid/Base/Acid), this pretreatment protocol is applied to most organic material types. A hot hydrochloric acid (HCl) wash is applied to remove any carbonates (if present), and then hot sodium hydroxide (NaOH) washes is performed for removal of secondary humic acids. A final hot HCl wash is applied prior to rinsing the sample solution neutral, then dried to prepare for combustion.
- **Acid Etched (AE):** This pretreatment protocol is applied to most carbonates, such as shells and corals. Material is first rinsed with water and mechanically cleaned to remove any debris if present, then exposed to a dilute HCl wash. The sample solution is then rinsed neutral and dried to prepare for acid digestion.
- **Acid Only (AO):** This pretreatment protocol is typically applied to organic sediments. Sample is mechanically sieved, then a HCl wash is applied to remove any carbonates that may be present. The sample solution is then rinsed neutral and dried to prepare for combustion.
- **Collagen Extraction With Acid/Alkali/Acid (Col-AAA)**: This protocol is applied to bones. The sample surface is cleaned, then the AAA process & extraction the protein component of the bone (collagen) through the removal of the mineral portion of the bone (calcium hydroxyapatite) is performed. The treated collagen extracted is rinsed neutral and dried to prepare for combustion.
- **Carbonate Extraction:** This protocol is typically applied to cremated bones. These bones have been heated to temperatures above 600°C and as a result, the bioapatite forms larger and better structure crystals that are typically not susceptible to contamination over time. After cleaning the external surface of the sample, it is treated with NaClO for 48 hours, then CH_3COOH for 24 hours. The sample is then rinsed neutral and dried to prepare for acid digestion.
- **Dissolved Inorganic Carbon (DIC)**: Strontium Chloride (SrCl) is added to ~250 mL of water under slightly basic conditions. Over time, carbon in the water precipitates as $SrCO_3$. The precipitate is dried and prepared for acid digestion.

Combustion

For each sample, some of it is weighed and placed in quartz tube. The tube containing the sample is subsequently brought to vacuum, then an oxygen source is introduced into the tube. The tube is then sealed and exposed to heat (800°C) for at least 30 minutes to drive the reaction, which causes the carbon in the sample to be converted to CO_2 gas. The other product in the reaction is H_2O. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Acid Digestion

Carbonate samples go through the acid digestion process after pretreatment. This involves crushing some of the pretreated material, then placing it in a tube that is subsequently evacuated. The acid digestion reaction is then started by adding H_3PO_4 to the sample in the vacuum environment. This reaction releases the carbon in the sample as CO_2 gas. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Reduction (Graphitization)

The evolved CO_2 is distilled through a cold (-78°C) solid CO_2/C_3H_8O slush to remove water as it is transferred under a vacuum to a reduction reaction vessel via a cryogenic pump using liquid N_2 (-195°C). The reduction reaction vessel contains Co as the catalyst and $Mg(ClO_4)_2$ as a drying agent. Hydrogen gas is added to the reduction reaction vessel and then heat is introduced (550°C) to drive the reaction. An unbalanced summary of the 2-step reduction reaction is as follows:

$$CO_2 + H_2 \xrightarrow[550^{o}C,\ Co]{\blacktriangle} CO + H_2O$$

$$CO + H_2 \xrightarrow[550^{o}C,\ Co]{\blacktriangle} C_{(graphite)} + H_2O$$

Accelerator Mass Spectrometry (AMS) Analysis

The graphite obtained for each sample is pressed into an aluminum cathode, and then placed into a sample wheel that is loaded into one of the ion sources in the AMS. The sample wheel includes QC samples of known values in addition to unknowns so that accuracy & precision can be verified. Percent Modern Carbon and a Conventional Age is then determined for each sample.

- AMS = Accelerator Mass Spectrometry.
- pMC = Percent Modern Carbon.
- IAEA = International Atomic Energy Agency.
- Calibrated ages are attained using IntCal20 or Bomb 21 NH1.
- Unless otherwise stated, the error reported is two sigma standard deviation (95.4%).
- Conventional ages are given in BP (BP=Before Present, 1950 AD) or F14C when samples are post-1950, and have been corrected for natural isotope fractionation.

FQ Labs

3170 Ualena Street, Unit A
Honolulu, HI 96819
Phone: 808-839-9444, Fax: 808-839-9744

Intera Incorporated
74 Kihapai Street
Kailua, HI, 96734
Attn: Jordan Moniuszko
Project Name: Kalaeloa Desal

CERTIFICATE OF ANALYSIS

Received: 07/28/2025 @ 1:17 PM
Completed: 08/03/2025 @ 10:00 AM
Project Number: 250728-4007-006
Temperature: 2.5 °C
Client Project No: LSBRG

Sample ID: 250728-4007-006-01 | **Water Sample- Lab # 12 Well 14 Step** | **Sampled: 7/28/2025 @ 9:30 AM** | **Sampler: Jordan Moniuszko**

Analysis	Results	Units	MDL	Test Method	Analyzed		By
Biochemical Oxygen Demand	<1.0	mg/L	1.0	SM 5210 B	07/29/2025	1:55 PM	EA
Nitrogen, Nitrate	0.099	mg/L	0.008	EPA 353.1, Rev2.0	07/28/2025	2:01 PM	AA
Nitrogen, Nitrite	<0.004	mg/L	0.004	EPA 353.2,Rev2.0	07/28/2025	2:01 PM	AA
Chromium VI	<0.001	mg/L	0.001	SM 3500-Cr-D	07/28/2025	2:01 PM	AA
Phosphorus, Total	0.021	mg/L	0.003	EPA 365.1, Rev2.0	07/31/2025	12:48 PM	AA

Approved By: Gregg Kawamoto
Monday, August 4, 2025

FQLabs
Analysts of Excellence
3170-A Ualena Street • Honolulu, HI 96819 • Tel: (808) 839-9444 • Fax: (808) 839-9744 • fql@fqlab.com

FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

Intera Incorporated
74 Kihapai Street
Kailua, HI 96734
Attn: Jordan Moniuszko
Project Name: Kalaeloa Desal

Received: 7/28/2025
Completed: 8/3/2025
Project Number: 250728-4007-006

Analysis	QC Test	Results	MDL	Units	Spike Level	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
Glucose-Glutamic Acid Check (GGA) 7/29/2025											
BOD	Blank	<1.0	1.00	mg/L	-	-	-	-	-	-	
BOD	GGA	221	1.00	mg/L	198±30.5	-	-	-	-	-	Pass
The results are within the control limit range of 198 ± 30.5											
Batch Prepared and Analyzed 7/28/2025											
Nitrate	Blank	<0.008	0.008	mg/L	-	-	-	-	-	-	
Nitrate	LCS	0.52	0.008	mg/L	0.50	-	103	90-110%	-	-	
Nitrate	Duplicate	1.59	0.008	mg/L	-	1.55	-	-	2.54	20%	
Nitrate	Matrix Spike	1.81	0.008	mg/L	1.00	0.78	103	90-110%	-	-	
Nitrite	Blank	<0.004	0.004	mg/L	-	-	-	-	-	-	
Nitrite	LCS	0.50	0.004	mg/L	0.50	-	99.6	90-110%	-	-	
Nitrite	Duplicate	0.01	0.004	mg/L	-	0.01	-	-	0.00	20%	
Nitrite	Matrix Spike	1.06	0.004	mg/L	1.00	0.00	105	90-110%	-	-	
Chromium VI	Blank	<0.001	0.001	mg/L	-	.	-	-	-	-	
Chromium VI	LCS	1.02	0.001	mg/L	1.00	-	102	85-115%	-	-	
Chromium VI	Duplicate	-0.01	0.001	mg/L	-	-0.01	-	-	11.8	20%	
Chromium VI	Matrix Spike	0.51	0.001	mg/L	0.50	0.00	103	85-115%	-	-	
Batch Prepared and Analyzed 7/31/2025											
Total Phos	Blank	<0.003	0.003	mg/L	-	-	-	-	-	-	
Total Phos	LCS	0.92	0.003	mg/L	1.00	-	92.0	90-110%	-	-	
Total Phos	Duplicate	0.86	0.003	mg/L	-	0.79	-	-	8.40	20%	
Total Phos	Matrix Spike	0.95	0.003	mg/L	0.50	0.43	105	90-110%	-	-	

Notes:

B1	Target Analyte detected in method blank was above the method detection limit.
D8	The duplicate exceeded the acceptance limit due to sample matrix effects.
dry	Sample results reported on a dry weight basis.
LCS	Laboratory Control Standard
M8	The matrix spike was below the acceptance limits. See Blank Spike (LFB)
M9	The matrix spike was above the acceptance limits. See Blank Spike (LFB)
MDL	Method Detection Levels are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
ND	Not Detected
NR	Not Reported
R8	The LCS recovery was below the acceptance limits.
R9	The LCS recovery was above the acceptance limits.
REC	Recovery

FQLabs
Analysts of Excellence
3170-A Ualena Street • Honolulu, HI 96819 • Tel: (808) 839-9444 • Fax: (808) 839-9744 • fql@fqlab.com

FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

Intera Incorporated
74 Kihapai Street
Kailua, HI 96734
Attn: Jordan Moniuszko
Project Name: Kalaeloa Desal

Received: 7/28/2025
Completed: 8/3/2025
Project Number: 250728-4007-006

Analysis	QC Test	Results	MDL	Units	Spike Level	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
RPD	Relative Percent Difference										

FQLabs

3170-A Ualena Street
Honolulu, HI 96819

Invoice

Date	Invoice #
8/4/2025	33871

Bill To
Intera Incorporated 74 Kihapai St. Kailua, HI 96734 Attn:Jordan Moniuszko

P.O. No.	Terms	Contract #	Lab #
	Due on receipt		12

Description	Qty	Rate	Amount
Project Name: Kalaeloa Disalination Project NO: LSBRG.Kalaelo			
Nitrogen, Nitrate EPA 353.2, Rev2.0**	1	140.00	140.00T
Nitrogen, Nitrite (water)**	1	130.00	130.00T
Phosphate, total	1	73.37	73.37T
BOD-5	1	99.00	99.00T
Hexavalent chromium (CrVI) Dissolved, SM 3500-Cr B**	1	205.00	205.00T
**RUSH Fee for Short Holding Time Sample Received on 07/28/25			

Make Check Payable To:FQLabs

Subtotal	$647.37
Sales Tax (4.712%)	$30.51
Total	$677.88

FQLabs
3170-A Ualena St.
Honolulu, HI 96819
Tel: 808-839-9444 Fax: 808-839-9744 website: www.fqlabs.com

CHAIN OF CUSTODY AND ANALYSIS REQUEST

DATE: _____ PAGE _____ OF _____
CUSTOMER NO. _____ LAB NO _____

CLIENT NAME: INTERA EMAIL: Jordanm@intera.com

ADDRESS: 74 Ka'Lopai St Kailua 96734

PROJECT NAME: Kalaeloa Desal PROJECT NO: LSIBRG P.O. NO:

PROJECT MANAGER: Jordan Moniuszko PHONE NO: 808.284.3224 FAX NO:

SAMPLER NAME: (Printed) Jordan Moniuszko (Signature)

TAT (Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N= Normal

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other:

ANALYSES REQUESTED

AIRBILL NO:

COOLER NO:

SAMPLE TEMP: 2.5°C

REMARKS:

SAMPLE CONDITION/ COMMENTS:

LAB USE ONLY SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX WATER	MATRIX OTHER	CONTAINER #	CONTAINER TYPE	CONTAINER GRAB/ COMP	SM2580 Hexavalent Chromium	365.1 BOD, Total Phosphorus	Nitrate	Nitrite				
12	7/28/25	9:30	Well 14 Step	✓		3		G	1	1	1					

Relinquished By: (Signature and Printed Name) Jordan Moniuszko Date: 7/28/25 Time: 13:10 Received By: (Signature and Printed Name) Date: 7/28/25 Time: 13:7

Relinquished By: (Signature and Printed Name) Date: Time: Received By: (Signature and Printed Name) Date: Time:

Is this a compliance drinking water sample? Yes (No) Sign and Print Jordan Moniuszko Date: 7/28/25 Time: 13:10

SPECIAL INSTRUCTIONS:

SAMPLE DISPOSITION:

1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless additional storage time is requested.
3. Storage time requested: _____ days.

By _____ Date _____

Oxygen, Hydrogen isotopic analysis of waters
Instrumentation: Picarro L2130-i High Precision 18O and D Isotopic Wat

	Average		Standard Deviation	
Sample Name	**$\delta^{18}O$ (‰)**	**$\delta^{2}H$ (‰)**	**$\delta^{18}O$**	**$\delta^{2}H$**
Well 14 EB 1	***-9.0***	***-60.0***	***0.03***	***0.06***
Well 14 EB 2	***-9.0***	***-59.7***	***0.03***	***0.12***
MW 2 1	***-3.7***	***-19.5***	***0.03***	***0.29***
MW 2 2	***-3.7***	***-19.1***	***0.04***	***0.19***
MW 1 1	***-3.2***	***-15.8***	***0.08***	***0.37***
MW 1 2	***-3.1***	***-15.5***	***0.02***	***0.1***
Well 15 Step 1	***0.2***	***1.9***	***0.03***	***0.16***
Well 15 120Hr 1	***0.2***	***1.8***	***0.04***	***0.18***
Well 15 120Hr 2	***0.1***	***1.4***	***0.06***	***0.16***
Well 15 120Hr Dup 1	***0.1***	***1.6***	***0.11***	***0.34***
Well 14 Step 1	***0.4***	***3.7***	***0.08***	***0.23***
Well 14 Step 2	***0.3***	***3.4***	***0.02***	***0.10***

Comments:
Isotopic corrections are calculated using standards prepared by our labo
All samples were analyzed in at least triplicate, and isotopic values are re
The software Chemcorrect was used to flag for organic contamination; a
otherwise noted.

er Analyzer via A0211 High Precision Vaporizer and Picarro A0325 Autosampler

notes

Evian Water as a check standard:

	δ18O	δ2H
Accuracy	**0.05**	**-0.32**
Precision	**0.14**	**0.4**

ratory and run along with your samples.
eported in δ-notation relative to V-SMOW.
ll samples clear of contamination unless

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 8/8/2025 11:18:47 AM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 15 120 Hr

JOB NUMBER

380-161498-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

Generated
8/8/2025 11:18:47 AM

Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Isotope Dilution Summary 11
QC Sample Results 13
QC Association Summary 21
Lab Chronicle 22
Certification Summary 23
Method Summary 24
Sample Summary 25
Chain of Custody 26
Receipt Checklists 29

Qualifiers

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-161498-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 7/18/2025 9:21 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C.

PFAS
Method 1633_Final: The low level laboratory control sample (LLCS) for preparation batch 320-868016 and analytical batch 320-868390 recovered outside control limits for the following analytes: Perfluorotetradecanoic acid (PFTeDA). These analytes were biased high in the LLCS and were not detected in the associated samples; therefore, the data have been reported:Well 15 120 Hr (380-161498-1), Well 15 120 Hr Dup (380-161498-2) and (LLCS 320-868016/2-A).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161498-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120 Hr — Lab Sample ID: 380-161498-1

No Detections.

Client Sample ID: Well 15 120 Hr Dup — Lab Sample ID: 380-161498-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161498-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120 Hr

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161498-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0		ng/L		08/05/25 11:45	08/07/25 06:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0		ng/L		08/05/25 11:45	08/07/25 06:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0		ng/L		08/05/25 11:45	08/07/25 06:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.6		ng/L		08/05/25 11:45	08/07/25 06:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.6		ng/L		08/05/25 11:45	08/07/25 06:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0		ng/L		08/05/25 11:45	08/07/25 06:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.1		ng/L		08/05/25 11:45	08/07/25 06:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.6		ng/L		08/05/25 11:45	08/07/25 06:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.6		ng/L		08/05/25 11:45	08/07/25 06:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorobutanoic acid (PFBA)	ND		3.0		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorodecanoic acid (PFDA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorododecanoic acid (PFDoA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorohexanoic acid (PFHxA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorononanoic acid (PFNA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 06:20	1

Client Sample ID: Well 15 120 Hr

Lab Sample ID: 380-161498-1

Date Collected: 07/17/25 09:00
Matrix: Water
Date Received: 07/18/25 09:21

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorooctanoic acid (PFOA)	ND		1.5	ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND	*+	1.5	ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	ng/L		08/05/25 11:45	08/07/25 06:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	ng/L		08/05/25 11:45	08/07/25 06:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*94.7*		*40 - 200*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C2 6:2 FTS	*94.1*		*40 - 200*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C2 8:2 FTS	*80.7*		*40 - 300*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C2 PFDoA	*72.9*		*10 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C2 PFTeDA	*59.3*		*10 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C3 HFPO-DA	*68.9*		*40 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C3 PFBS	*99.7*		*40 - 135*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C3 PFHxS	*101*		*40 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C4 PFBA	*92.2*		*5 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C4 PFHpA	*66.3*		*40 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C5 PFHxA	*83.4*		*40 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C5 PFPeA	*80.1*		*40 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C6 PFDA	*92.5*		*40 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C7 PFUnA	*80.9*		*30 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C8 FOSA	*81.9*		*40 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C8 PFOA	*88.1*		*40 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C8 PFOS	*81.9*		*40 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
13C9 PFNA	*81.7*		*40 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
d3-NMeFOSAA	*68.6*		*40 - 170*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
d3-NMePFOSA	*66.2*		*10 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
d5-NEtFOSAA	*86.9*		*25 - 135*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
d5-NEtPFOSA	*62.6*		*10 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
d7-N-MeFOSE-M	*59.5*		*10 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*
d9-N-EtFOSE-M	*61.7*		*10 - 130*	*08/05/25 11:45*	*08/07/25 06:20*	*1*

Client Sample ID: Well 15 120 Hr Dup

Lab Sample ID: 380-161498-2

Date Collected: 07/17/25 09:00
Matrix: Water
Date Received: 07/18/25 09:21

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	ng/L		08/05/25 11:45	08/07/25 06:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	ng/L		08/05/25 11:45	08/07/25 06:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	ng/L		08/05/25 11:45	08/07/25 06:36	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	ng/L		08/05/25 11:45	08/07/25 06:36	1

Client Sample ID: Well 15 120 Hr Dup

Lab Sample ID: 380-161498-2

Date Collected: 07/17/25 09:00
Matrix: Water
Date Received: 07/18/25 09:21

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.8	ng/L		08/05/25 11:45	08/07/25 06:36	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	ng/L		08/05/25 11:45	08/07/25 06:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2	ng/L		08/05/25 11:45	08/07/25 06:36	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	ng/L		08/05/25 11:45	08/07/25 06:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	ng/L		08/05/25 11:45	08/07/25 06:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorobutanoic acid (PFBA)	ND		3.1	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorodecanoic acid (PFDA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorononanoic acid (PFNA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorooctanoic acid (PFOA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorotetradecanoic acid (PFTeDA)	ND	*+	1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	ng/L		08/05/25 11:45	08/07/25 06:36	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161498-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120 Hr Dup

Lab Sample ID: 380-161498-2

Date Collected: 07/17/25 09:00

Matrix: Water

Date Received: 07/18/25 09:21

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 4:2 FTS	76.4		40 - 200	08/05/25 11:45	08/07/25 06:36	1
13C2 6:2 FTS	69.7		40 - 200	08/05/25 11:45	08/07/25 06:36	1
13C2 8:2 FTS	70.3		40 - 300	08/05/25 11:45	08/07/25 06:36	1
13C2 PFDoA	59.4		10 - 130	08/05/25 11:45	08/07/25 06:36	1
13C2 PFTeDA	55.9		10 - 130	08/05/25 11:45	08/07/25 06:36	1
13C3 HFPO-DA	51.9		40 - 130	08/05/25 11:45	08/07/25 06:36	1
13C3 PFBS	70.7		40 - 135	08/05/25 11:45	08/07/25 06:36	1
13C3 PFHxS	76.0		40 - 130	08/05/25 11:45	08/07/25 06:36	1
13C4 PFBA	65.4		5 - 130	08/05/25 11:45	08/07/25 06:36	1
13C4 PFHpA	50.4		40 - 130	08/05/25 11:45	08/07/25 06:36	1
13C5 PFHxA	59.9		40 - 130	08/05/25 11:45	08/07/25 06:36	1
13C5 PFPeA	62.7		40 - 130	08/05/25 11:45	08/07/25 06:36	1
13C6 PFDA	77.5		40 - 130	08/05/25 11:45	08/07/25 06:36	1
13C7 PFUnA	66.3		30 - 130	08/05/25 11:45	08/07/25 06:36	1
13C8 FOSA	62.4		40 - 130	08/05/25 11:45	08/07/25 06:36	1
13C8 PFOA	68.2		40 - 130	08/05/25 11:45	08/07/25 06:36	1
13C8 PFOS	67.2		40 - 130	08/05/25 11:45	08/07/25 06:36	1
13C9 PFNA	58.7		40 - 130	08/05/25 11:45	08/07/25 06:36	1
d3-NMeFOSAA	58.8		40 - 170	08/05/25 11:45	08/07/25 06:36	1
d3-NMePFOSA	54.6		10 - 130	08/05/25 11:45	08/07/25 06:36	1
d5-NEtFOSAA	72.5		25 - 135	08/05/25 11:45	08/07/25 06:36	1
d5-NEtPFOSA	52.7		10 - 130	08/05/25 11:45	08/07/25 06:36	1
d7-N-MeFOSE-M	53.4		10 - 130	08/05/25 11:45	08/07/25 06:36	1
d9-N-EtFOSE-M	57.8		10 - 130	08/05/25 11:45	08/07/25 06:36	1

Isotope Dilution Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161498-1
SDG: Well 15 120 Hr

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	PFDoA	PFTDA	HFPODA	C3PFBS	C3PFHS
Lab Sample ID	Client Sample ID	(40-200)	(40-200)	(40-300)	(10-130)	(10-130)	(40-130)	(40-135)	(40-130)
380-161498-1	Well 15 120 Hr	94.7	94.1	80.7	72.9	59.3	68.9	99.7	101
380-161498-2	Well 15 120 Hr Dup	76.4	69.7	70.3	59.4	55.9	51.9	70.7	76.0
LCS 320-868016/3-A	Lab Control Sample	114	87.1	80.0	89.4	78.5	70.7	91.3	91.3
LCSD 320-868016/4-A	Lab Control Sample Dup	103	99.0	90.4	81.1	71.5	79.4	99.3	95.7
LLCS 320-868016/2-A	Lab Control Sample	94.0	92.0	89.7	92.0	67.6	81.4	85.1	92.8
MB 320-868016/1-A	Method Blank	108	85.4	90.1	89.0	76.6	77.0	94.2	100

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	C4PFHA	13C5PHA	PFPeA	C6PFDA	13C7PUA	PFOSA	C8PFOA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)	(40-130)	(40-130)
380-161498-1	Well 15 120 Hr	92.2	66.3	83.4	80.1	92.5	80.9	81.9	88.1
380-161498-2	Well 15 120 Hr Dup	65.4	50.4	59.9	62.7	77.5	66.3	62.4	68.2
LCS 320-868016/3-A	Lab Control Sample	95.7	70.3	86.2	85.5	104	104	80.9	99.8
LCSD 320-868016/4-A	Lab Control Sample Dup	93.1	82.1	95.1	84.6	105	110	85.2	83.9
LLCS 320-868016/2-A	Lab Control Sample	91.9	82.6	88.9	81.8	100	104	78.6	90.1
MB 320-868016/1-A	Method Blank	96.4	70.8	85.5	83.5	103	105	88.0	94.7

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C8PFOS	C9PFNA	d3NMFOS	d3NMFSA	d5NEFOS	d5NPFSA	NMFM	NEFM
Lab Sample ID	Client Sample ID	(40-130)	(40-130)	(40-170)	(10-130)	(25-135)	(10-130)	(10-130)	(10-130)
380-161498-1	Well 15 120 Hr	81.9	81.7	68.6	66.2	86.9	62.6	59.5	61.7
380-161498-2	Well 15 120 Hr Dup	67.2	58.7	58.8	54.6	72.5	52.7	53.4	57.8
LCS 320-868016/3-A	Lab Control Sample	83.9	81.1	80.3	72.1	104	67.0	65.1	69.7
LCSD 320-868016/4-A	Lab Control Sample Dup	86.9	78.6	89.4	75.6	106	72.2	68.8	71.9
LLCS 320-868016/2-A	Lab Control Sample	85.0	75.2	82.9	71.7	96.3	69.2	65.5	70.3
MB 320-868016/1-A	Method Blank	94.0	80.7	87.6	74.6	101	72.0	72.5	76.4

Surrogate Legend

M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
HFPODA = 13C3 HFPO-DA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
13C5PHA = 13C5 PFHxA
PFPeA = 13C5 PFPeA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
C9PFNA = 13C9 PFNA
d3NMFOS = d3-NMeFOSAA
d3NMFSA = d3-NMePFOSA
d5NEFOS = d5-NEtFOSAA
d5NPFSA = d5-NEtPFOSA
NMFM = d7-N-MeFOSE-M

Isotope Dilution Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161498-1
SDG: Well 15 120 Hr

NEFM = d9-N-EtFOSE-M

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 320-868016/1-A
Matrix: Water
Analysis Batch: 868390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 868016

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10		ng/L		08/05/25 11:45	08/07/25 02:47	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10		ng/L		08/05/25 11:45	08/07/25 02:47	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5		ng/L		08/05/25 11:45	08/07/25 02:47	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10		ng/L		08/05/25 11:45	08/07/25 02:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10		ng/L		08/05/25 11:45	08/07/25 02:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		08/05/25 11:45	08/07/25 02:47	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 320-868016/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 868390 — **Prep Batch: 868016**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorooctanoic acid (PFOA)	ND		2.0	ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	ng/L		08/05/25 11:45	08/07/25 02:47	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	ng/L		08/05/25 11:45	08/07/25 02:47	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*108*		*40 - 200*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C2 6:2 FTS	*85.4*		*40 - 200*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C2 8:2 FTS	*90.1*		*40 - 300*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C2 PFDoA	*89.0*		*10 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C2 PFTeDA	*76.6*		*10 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C3 HFPO-DA	*77.0*		*40 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C3 PFBS	*94.2*		*40 - 135*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C3 PFHxS	*100*		*40 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C4 PFBA	*96.4*		*5 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C4 PFHpA	*70.8*		*40 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C5 PFHxA	*85.5*		*40 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C5 PFPeA	*83.5*		*40 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C6 PFDA	*103*		*40 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C7 PFUnA	*105*		*30 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C8 FOSA	*88.0*		*40 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C8 PFOA	*94.7*		*40 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C8 PFOS	*94.0*		*40 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
13C9 PFNA	*80.7*		*40 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
d3-NMeFOSAA	*87.6*		*40 - 170*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
d3-NMePFOSA	*74.6*		*10 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
d5-NEtFOSAA	*101*		*25 - 135*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
d5-NEtPFOSA	*72.0*		*10 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
d7-N-MeFOSE-M	*72.5*		*10 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*
d9-N-EtFOSE-M	*76.4*		*10 - 130*	*08/05/25 11:45*	*08/07/25 02:47*	*1*

Lab Sample ID: LCS 320-868016/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 868390 — **Prep Batch: 868016**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	48.0		ng/L		127	55 - 160
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	81.4		ng/L		106	60 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	69.0		ng/L		92	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	73.1		ng/L		96	65 - 155

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-868016/3-A
Matrix: Water
Analysis Batch: 868390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 868016

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	190		ng/L		95	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	196		ng/L		98	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	86.3		ng/L		108	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	51.8		ng/L		137	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	46.8		ng/L		125	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	34.4		ng/L		115	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	44.3		ng/L		111	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	221		ng/L		111	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.5		ng/L		84	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	42.4		ng/L		106	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	238		ng/L		119	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	43.5		ng/L		109	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	44.6		ng/L		111	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	42.7		ng/L		120	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	44.0		ng/L		110	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	43.6		ng/L		109	60 - 150
Perfluorobutanesulfonic acid (PFBS)	35.5	38.3		ng/L		108	60 - 145
Perfluorobutanoic acid (PFBA)	80.0	88.9		ng/L		111	70 - 140
Perfluorodecanesulfonic acid (PFDS)	38.6	40.2		ng/L		104	60 - 145
Perfluorodecanoic acid (PFDA)	40.0	39.2		ng/L		98	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	38.8	35.8		ng/L		92	50 - 145
Perfluorododecanoic acid (PFDoA)	40.0	40.7		ng/L		102	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	38.2	40.7		ng/L		107	70 - 150
Perfluoroheptanoic acid (PFHpA)	40.0	43.9		ng/L		110	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	36.5	36.0		ng/L		99	65 - 145
Perfluorohexanoic acid (PFHxA)	40.0	47.2		ng/L		118	70 - 145
Perfluorononanesulfonic acid (PFNS)	38.5	40.6		ng/L		105	65 - 145
Perfluorononanoic acid (PFNA)	40.0	48.5		ng/L		121	70 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	39.3		ng/L		98	70 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-868016/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 868390 — **Prep Batch: 868016**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	37.2	41.4		ng/L		111	55 - 150
Perfluorooctanoic acid (PFOA)	40.0	41.6		ng/L		104	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	37.6	33.8		ng/L		90	65 - 140
Perfluoropentanoic acid (PFPeA)	40.0	40.4		ng/L		101	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	40.0	49.8		ng/L		125	60 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	44.3		ng/L		111	65 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	33.8		ng/L		84	70 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 4:2 FTS	*114*		*40 - 200*
13C2 6:2 FTS	*87.1*		*40 - 200*
13C2 8:2 FTS	*80.0*		*40 - 300*
13C2 PFDoA	*89.4*		*10 - 130*
13C2 PFTeDA	*78.5*		*10 - 130*
13C3 HFPO-DA	*70.7*		*40 - 130*
13C3 PFBS	*91.3*		*40 - 135*
13C3 PFHxS	*91.3*		*40 - 130*
13C4 PFBA	*95.7*		*5 - 130*
13C4 PFHpA	*70.3*		*40 - 130*
13C5 PFHxA	*86.2*		*40 - 130*
13C5 PFPeA	*85.5*		*40 - 130*
13C6 PFDA	*104*		*40 - 130*
13C7 PFUnA	*104*		*30 - 130*
13C8 FOSA	*80.9*		*40 - 130*
13C8 PFOA	*99.8*		*40 - 130*
13C8 PFOS	*83.9*		*40 - 130*
13C9 PFNA	*81.1*		*40 - 130*
d3-NMeFOSAA	*80.3*		*40 - 170*
d3-NMePFOSA	*72.1*		*10 - 130*
d5-NEtFOSAA	*104*		*25 - 135*
d5-NEtPFOSA	*67.0*		*10 - 130*
d7-N-MeFOSE-M	*65.1*		*10 - 130*
d9-N-EtFOSE-M	*69.7*		*10 - 130*

Lab Sample ID: LCSD 320-868016/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 868390 — **Prep Batch: 868016**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	47.8		ng/L		127	55 - 160	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	76.8		ng/L		100	60 - 150	6	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	78.3		ng/L		104	70 - 145	13	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-868016/4-A
Matrix: Water
Analysis Batch: 868390

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 868016

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	68.2		ng/L		90	65 - 155	7	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	190		ng/L		95	50 - 145	0	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	176		ng/L		88	70 - 135	11	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	92.5		ng/L		116	65 - 130	7	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	49.9		ng/L		132	65 - 145	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	47.1		ng/L		126	70 - 155	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	33.0		ng/L		110	70 - 140	4	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	44.1		ng/L		110	65 - 145	0	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	223		ng/L		112	70 - 135	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	34.2		ng/L		86	70 - 145	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	42.9		ng/L		107	60 - 150	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	225		ng/L		113	70 - 145	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	42.4		ng/L		106	50 - 140	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	41.9		ng/L		105	50 - 150	6	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	43.1		ng/L		121	70 - 140	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	49.8		ng/L		124	55 - 140	12	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	50.2		ng/L		125	60 - 150	14	30
Perfluorobutanesulfonic acid (PFBS)	35.5	37.7		ng/L		106	60 - 145	2	30
Perfluorobutanoic acid (PFBA)	80.0	91.0		ng/L		114	70 - 140	2	30
Perfluorodecanesulfonic acid (PFDS)	38.6	39.3		ng/L		102	60 - 145	2	30
Perfluorodecanoic acid (PFDA)	40.0	38.3		ng/L		96	70 - 140	2	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	35.0		ng/L		90	50 - 145	2	30
Perfluorododecanoic acid (PFDoA)	40.0	44.2		ng/L		110	70 - 140	8	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	41.3		ng/L		108	70 - 150	1	30
Perfluoroheptanoic acid (PFHpA)	40.0	41.4		ng/L		103	70 - 150	6	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	36.5		ng/L		100	65 - 145	1	30
Perfluorohexanoic acid (PFHxA)	40.0	46.9		ng/L		117	70 - 145	1	30
Perfluorononanesulfonic acid (PFNS)	38.5	40.8		ng/L		106	65 - 145	1	30
Perfluorononanoic acid (PFNA)	40.0	48.3		ng/L		121	70 - 150	0	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-868016/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 868390 — **Prep Batch: 868016**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonamide (PFOSA)	40.0	41.6		ng/L		104	70 - 145	6	30
Perfluorooctanesulfonic acid (PFOS)	37.2	44.3		ng/L		119	55 - 150	7	30
Perfluorooctanoic acid (PFOA)	40.0	47.5		ng/L		119	70 - 150	13	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	37.1		ng/L		99	65 - 140	9	30
Perfluoropentanoic acid (PFPeA)	40.0	43.0		ng/L		107	65 - 135	6	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	51.5		ng/L		129	60 - 140	3	30
Perfluorotridecanoic acid (PFTrDA)	40.0	52.7		ng/L		132	65 - 140	17	30
Perfluoroundecanoic acid (PFUnA)	40.0	36.3		ng/L		91	70 - 145	7	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2 4:2 FTS	*103*		*40 - 200*
13C2 6:2 FTS	*99.0*		*40 - 200*
13C2 8:2 FTS	*90.4*		*40 - 300*
13C2 PFDoA	*81.1*		*10 - 130*
13C2 PFTeDA	*71.5*		*10 - 130*
13C3 HFPO-DA	*79.4*		*40 - 130*
13C3 PFBS	*99.3*		*40 - 135*
13C3 PFHxS	*95.7*		*40 - 130*
13C4 PFBA	*93.1*		*5 - 130*
13C4 PFHpA	*82.1*		*40 - 130*
13C5 PFHxA	*95.1*		*40 - 130*
13C5 PFPeA	*84.6*		*40 - 130*
13C6 PFDA	*105*		*40 - 130*
13C7 PFUnA	*110*		*30 - 130*
13C8 FOSA	*85.2*		*40 - 130*
13C8 PFOA	*83.9*		*40 - 130*
13C8 PFOS	*86.9*		*40 - 130*
13C9 PFNA	*78.6*		*40 - 130*
d3-NMeFOSAA	*89.4*		*40 - 170*
d3-NMePFOSA	*75.6*		*10 - 130*
d5-NEtFOSAA	*106*		*25 - 135*
d5-NEtPFOSA	*72.2*		*10 - 130*
d7-N-MeFOSE-M	*68.8*		*10 - 130*
d9-N-EtFOSE-M	*71.9*		*10 - 130*

Lab Sample ID: LLCS 320-868016/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 868390 — **Prep Batch: 868016**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	4.63		ng/L		123	55 - 160
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.52		ng/L		98	60 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-868016/2-A
Matrix: Water
Analysis Batch: 868390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 868016

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	9.15		ng/L		122	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.36		ng/L		97	65 - 155
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	19.8		ng/L		99	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	19.5		ng/L		97	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	9.84		ng/L		123	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	4.51		ng/L		119	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	4.24		ng/L		114	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	3.39		ng/L		113	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.40		ng/L		110	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	21.7		ng/L		109	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.56		ng/L		89	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.45		ng/L		111	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	23.9		ng/L		120	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.50		ng/L		113	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	5.02		ng/L		126	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	4.24		ng/L		119	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	5.05		ng/L		126	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.93		ng/L		123	60 - 150
Perfluorobutanesulfonic acid (PFBS)	3.55	4.05		ng/L		114	60 - 145
Perfluorobutanoic acid (PFBA)	8.00	9.76		ng/L		122	70 - 140
Perfluorodecanesulfonic acid (PFDS)	3.86	4.31		ng/L		112	60 - 145
Perfluorodecanoic acid (PFDA)	4.00	4.29		ng/L		107	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	3.88	3.81		ng/L		98	50 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.93		ng/L		98	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	3.82	4.31		ng/L		113	70 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	4.28		ng/L		107	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	3.65	4.04		ng/L		111	65 - 145
Perfluorohexanoic acid (PFHxA)	4.00	4.91		ng/L		123	70 - 145
Perfluorononanesulfonic acid (PFNS)	3.85	4.31		ng/L		112	65 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-868016/2-A
Matrix: Water
Analysis Batch: 868390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 868016

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanoic acid (PFNA)	4.00	4.41		ng/L		110	70 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.35		ng/L		109	70 - 145
Perfluorooctanesulfonic acid (PFOS)	3.72	4.12		ng/L		111	55 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.36		ng/L		109	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.67		ng/L		98	65 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.49		ng/L		112	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	4.00	5.81	*+	ng/L		145	60 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.59		ng/L		115	65 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.61		ng/L		90	70 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 4:2 FTS	*94.0*		*40 - 200*
13C2 6:2 FTS	*92.0*		*40 - 200*
13C2 8:2 FTS	*89.7*		*40 - 300*
13C2 PFDoA	*92.0*		*10 - 130*
13C2 PFTeDA	*67.6*		*10 - 130*
13C3 HFPO-DA	*81.4*		*40 - 130*
13C3 PFBS	*85.1*		*40 - 135*
13C3 PFHxS	*92.8*		*40 - 130*
13C4 PFBA	*91.9*		*5 - 130*
13C4 PFHpA	*82.6*		*40 - 130*
13C5 PFHxA	*88.9*		*40 - 130*
13C5 PFPeA	*81.8*		*40 - 130*
13C6 PFDA	*100*		*40 - 130*
13C7 PFUnA	*104*		*30 - 130*
13C8 FOSA	*78.6*		*40 - 130*
13C8 PFOA	*90.1*		*40 - 130*
13C8 PFOS	*85.0*		*40 - 130*
13C9 PFNA	*75.2*		*40 - 130*
d3-NMeFOSAA	*82.9*		*40 - 170*
d3-NMePFOSA	*71.7*		*10 - 130*
d5-NEtFOSAA	*96.3*		*25 - 135*
d5-NEtPFOSA	*69.2*		*10 - 130*
d7-N-MeFOSE-M	*65.5*		*10 - 130*
d9-N-EtFOSE-M	*70.3*		*10 - 130*

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161498-1
SDG: Well 15 120 Hr

LCMS

Prep Batch: 868016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161498-1	Well 15 120 Hr	Total/NA	Water	1633	
380-161498-2	Well 15 120 Hr Dup	Total/NA	Water	1633	
MB 320-868016/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-868016/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-868016/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-868016/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 868390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161498-1	Well 15 120 Hr	Total/NA	Water	1633	868016
380-161498-2	Well 15 120 Hr Dup	Total/NA	Water	1633	868016
MB 320-868016/1-A	Method Blank	Total/NA	Water	1633	868016
LCS 320-868016/3-A	Lab Control Sample	Total/NA	Water	1633	868016
LCSD 320-868016/4-A	Lab Control Sample Dup	Total/NA	Water	1633	868016
LLCS 320-868016/2-A	Lab Control Sample	Total/NA	Water	1633	868016

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161498-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120 Hr

Lab Sample ID: 380-161498-1

Date Collected: 07/17/25 09:00
Matrix: Water
Date Received: 07/18/25 09:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			868016	WVD	EET SAC	08/05/25 11:45
Total/NA	Analysis	1633		1	868390	S1M	EET SAC	08/07/25 06:20

Client Sample ID: Well 15 120 Hr Dup

Lab Sample ID: 380-161498-2

Date Collected: 07/17/25 09:00
Matrix: Water
Date Received: 07/18/25 09:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			868016	WVD	EET SAC	08/05/25 11:45
Total/NA	Analysis	1633		1	868390	S1M	EET SAC	08/07/25 06:36

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161498-1
SDG: Well 15 120 Hr

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA00044	06-30-26
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468.03	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-26
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-26
Georgia	State	4040	01-29-26
Illinois	NELAP	200060	03-31-26
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-26
Louisiana (All)	NELAP	01944	06-30-26
Maine	State	CA00004	04-14-26
Massachusetts	State	M-CA044	06-30-26
Michigan	State	9947	01-29-26
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	08-31-25
New Jersey	NELAP	CA005	06-30-26
New York	NELAP	11666	04-01-26
Ohio	State	41252	01-29-26
Oregon	NELAP	4040	01-29-26
Texas	NELAP	T104704399-23-17	05-31-26
US Fish & Wildlife	US Federal Programs	A22139	04-30-26
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-26
Virginia	NELAP	460278	03-14-26
Washington	State	C581	05-05-26
West Virginia (DW)	State	9930C	02-01-26
West Virginia DEP	State	422	03-28-26
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161498-1
SDG: Well 15 120 Hr

Method	Method Description	Protocol	Laboratory
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET SAC
1633	Solid-Phase Extraction (SPE)	EPA	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161498-1
SDG: Well 15 120 Hr

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-161498-1	Well 15 120 Hr	Water	07/17/25 09:00	07/18/25 09:21	Hawaii
380-161498-2	Well 15 120 Hr Dup	Water	07/17/25 09:00	07/18/25 09:21	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria Lopez@et eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:	Analysis Requested		Job #
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #			
Email: jordanm@intera com	WO #:			
Project Name: Kalaeloa Desalination	Project #			
Site	SSOW#			

Preservation Codes:

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633 PFAs	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N		
Well 15 120 Hr	7/17/2025	9:00	G	Saltwater			2	2	
Well 15 120 Hr Dup	7/17/2025	9:00	G	Saltwater			2	2	

380 161498 COC

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements 3911 5489 0348

Empty Kit Relinquished by	Date	Time	Method of Shipment FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7/17/25 12:00	INTERA Inc	[signature]	7/18/25 921	EEHV

Custody Seals Intact. Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks.
		(631A) 3.1+0.0=3.1 ice frozen

8/8/2025

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808.284.3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808.284.3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633 PFAs	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:		X	X	N	X	
Well 15 120 Hr	7/17/2025	9:00	G	Saltwater			2	2	
Well 15 120 Hr Dup	7/17/2025	9:00	G	Saltwater			2	2	

380-161498 COC

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: 3911 5489 0348

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX Priority Overnight

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	7/17/25 12:00	INTERA Inc	[signature] Mar[illegible]	7/18/25 921	EEHY
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: (63.1A) 3.1 + 0.0 = 3.1 ice - frozen

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-233098.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): ISO/IEC 17025 A2LA		Job #: 380-161498-1
Address: 880 Riverside Parkway	Due Date Requested: 8/14/2025	Analysis Requested		Preservation Codes:
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalaaloa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final/1633_SPE_125Standard List	Total # of Containers	Special Instructions/Note
			Preservation Code:						
Well 15 120 Hr (380-161498-1)	7/17/25	09:00 Hawaiian	G	Water			X	2	
Well 15 120 Hr Dup (380-161498-2)	7/17/25	09:00 Hawaiian	G	Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by: Cuellero	7/21/25 9:25		Received by:	7/22/25 9:00	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 1.1c

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161498-1
SDG Number: Well 15 120 Hr

Login Number: 161498
List Number: 1
Creator: Leon, Mosses

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161498-1
SDG Number: Well 15 120 Hr

Login Number: 161498
List Number: 2
Creator: Simmons, Jason C

List Source: Eurofins Sacramento
List Creation: 07/22/25 01:40 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 8/25/2025 8:48:34 PM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 15 120 Hr

JOB NUMBER

380-161572-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

Generated
8/25/2025 8:48:34 PM

Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 8
Client Sample Results 9
Surrogate Summary 17
Tracer Carrier Summary 20
QC Sample Results 21
QC Association Summary 51
Lab Chronicle 58
Certification Summary 60
Method Summary 63
Sample Summary 65
Chain of Custody 66
Field Data Sheets 76
Receipt Checklists 78

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-161572-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 7/18/2025 9:21 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.9°C.

GC/MS VOA
Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-599498. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 625.1: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 570-600577 and analytical batch 570-602673 recovered outside control limits for the following analyte(s): Benzidine and Pyridine. Benzidine and Pyridine have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-600577 and analytical batch 570-602673 recovered outside control limits for the following analytes: Benzidine and Pyridine.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015B_DRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-601068. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method: 8015B_DRO

Method 8015B_DRO: The laboratory control sample (LCS) for preparation batch 570-601068 and analytical batch 570-616060 recovered outside control limits for the following analytes: C7-C44. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: Well 15 120hr (380-161572-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: Well 15 120hr (380-161572-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6020 - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: Well 15 120hr (380-161572-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6020 - Dissolved: The following sample was diluted due to the nature of the sample matrix: Well 15 120hr (380-161572-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 5310C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 570-611514 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method SM4500_NO3_E: The following sample was analyzed outside of analytical holding time due to requested after holding time: Well 15 120hr (380-161572-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Alpha Spectroscopy
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 900.0: GAB prep batch 160-729202
Insufficient sample volume was available to preform a sample duplicate for the samples. A laboratory control sample duplicate (LCS/LCSD) was prepared instead to demonstrate batch precision.

Method 900.0: Gross Alpha Beta Batch 729202

The detection goal was not met for the following sample due to a reduction of the sample size attributed to high residual mass: Well 15 120hr (380-161572-1). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium-228 batch 728732
The detection goal was not met for the following sample due to the reduced volume in prep attributed to the presence of matrix interferences: Well 15 120hr (380-161572-1). Analytical results are reported with the detection limit achieved.

Method 905_Sr90: Strontium-90 Prep Batch 160-729588

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Due to matrix interference observed in the initial prep of the sample, the sample was prepared at a reduced aliquot, cooked dry, muffled in an oven, and digested to reduce organic interference before the procedure for water samples was continued.

Method 905_Sr90: Strontium 90 Batch 729588

The detection goal was not met for the following sample due to a reduced sample volume used in prep attributed to the presence of matrix interferences. Well 15 120hr (380-161572-1)

Job ID: 380-161572-1 (Continued) Eurofins Eaton Analytical Pomona

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120hr

Lab Sample ID: 380-161572-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bromide	59		4.0		mg/L	40		300.0	Total/NA
Sulfate	2800		40		mg/L	40		300.0	Total/NA
Chloride - DL	20000		500		mg/L	500		300.0	Total/NA
Mercury	1.5		0.50		ng/L	1		1631E	Total/NA
Barium	27		0.50		ug/L	1		1640	Total/NA
Cadmium	0.040		0.020		ug/L	1		1640	Total/NA
Chromium	1.4		1.0		ug/L	1		1640	Total/NA
Iron	12		6.0		ug/L	1		1640	Total/NA
Manganese	0.27		0.050		ug/L	1		1640	Total/NA
Vanadium	1.8		1.0		ug/L	1		1640	Total/NA
Zinc	32		1.0		ug/L	1		1640	Total/NA
Calcium	430		2.0		mg/L	4		6010D	Total Recoverable
Magnesium	1400		50		mg/L	100		6010D	Total Recoverable
Potassium	430		13		mg/L	4		6010D	Total Recoverable
Sodium	11000		60		mg/L	100		6010D	Total Recoverable
SiO2, Silica	28		2.3		mg/L	1		6010D	Total Recoverable
Strontium	7.7		0.050		mg/L	5		6010D	Dissolved
Chemical Oxygen Demand	42		10		mg/L	1		410.4	Total/NA
Alkalinity, Total (As CaCO3)	97		5.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate (as CaCO3)	97		5.0		mg/L	1		SM 2320B	Total/NA
Salinity	34		2.0		psu	1		SM 2520B	Total/NA
Total Dissolved Solids	34000		1000		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120hr

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161572-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/19/25 18:32	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/19/25 18:32	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/19/25 18:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/19/25 18:32	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/19/25 18:32	1
1,1-Dichloroethane	ND		1.0		ug/L			07/19/25 18:32	1
1,1-Dichloroethene	ND		1.0		ug/L			07/19/25 18:32	1
1,1-Dichloropropene	ND		1.0		ug/L			07/19/25 18:32	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/19/25 18:32	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/19/25 18:32	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/19/25 18:32	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/19/25 18:32	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/19/25 18:32	1
1,2-Dibromoethane	ND		1.0		ug/L			07/19/25 18:32	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/19/25 18:32	1
1,2-Dichloroethane	ND		0.50		ug/L			07/19/25 18:32	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/19/25 18:32	1
1,2-Dichloropropane	ND		1.0		ug/L			07/19/25 18:32	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/19/25 18:32	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/19/25 18:32	1
1,3-Dichloropropane	ND		1.0		ug/L			07/19/25 18:32	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/19/25 18:32	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/19/25 18:32	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/19/25 18:32	1
2,2-Dichloropropane	ND		1.0		ug/L			07/19/25 18:32	1
2-Butanone	ND		10		ug/L			07/19/25 18:32	1
2-Chlorotoluene	ND		1.0		ug/L			07/19/25 18:32	1
2-Hexanone	ND		10		ug/L			07/19/25 18:32	1
4-Chlorotoluene	ND		1.0		ug/L			07/19/25 18:32	1
4-Methyl-2-pentanone	ND		10		ug/L			07/19/25 18:32	1
Acetone	ND		12		ug/L			07/19/25 18:32	1
Acrylonitrile	ND		2.0		ug/L			07/19/25 18:32	1
Benzene	ND		0.50		ug/L			07/19/25 18:32	1
Bromobenzene	ND		1.0		ug/L			07/19/25 18:32	1
Bromochloromethane	ND		1.0		ug/L			07/19/25 18:32	1
Bromodichloromethane	ND		1.0		ug/L			07/19/25 18:32	1
Bromoform	ND		1.0		ug/L			07/19/25 18:32	1
Bromomethane	ND		5.0		ug/L			07/19/25 18:32	1
Carbon disulfide	ND		10		ug/L			07/19/25 18:32	1
Carbon tetrachloride	ND		0.50		ug/L			07/19/25 18:32	1
Chlorobenzene	ND		1.0		ug/L			07/19/25 18:32	1
Chloroethane	ND		1.0		ug/L			07/19/25 18:32	1
Chloroform	ND		1.0		ug/L			07/19/25 18:32	1
Chloromethane	ND		1.0		ug/L			07/19/25 18:32	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/19/25 18:32	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/19/25 18:32	1
Dibromochloromethane	ND		1.0		ug/L			07/19/25 18:32	1
Dibromomethane	ND		1.0		ug/L			07/19/25 18:32	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/19/25 18:32	1

Client Sample ID: Well 15 120hr

Lab Sample ID: 380-161572-1

Date Collected: 07/17/25 09:00
Matrix: Water
Date Received: 07/18/25 09:21

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/19/25 18:32	1
Ethanol	ND		100		ug/L			07/19/25 18:32	1
Ethylbenzene	ND		1.0		ug/L			07/19/25 18:32	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			07/19/25 18:32	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/19/25 18:32	1
Isopropanol	ND		50		ug/L			07/19/25 18:32	1
Isopropylbenzene	ND		1.0		ug/L			07/19/25 18:32	1
m,p-Xylene	ND		1.0		ug/L			07/19/25 18:32	1
Methylene Chloride	ND		2.0		ug/L			07/19/25 18:32	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			07/19/25 18:32	1
Naphthalene	ND		10		ug/L			07/19/25 18:32	1
n-Butylbenzene	ND		1.0		ug/L			07/19/25 18:32	1
N-Propylbenzene	ND		1.0		ug/L			07/19/25 18:32	1
o-Xylene	ND		1.0		ug/L			07/19/25 18:32	1
p-Isopropyltoluene	ND		1.0		ug/L			07/19/25 18:32	1
sec-Butylbenzene	ND		1.0		ug/L			07/19/25 18:32	1
Styrene	ND		1.0		ug/L			07/19/25 18:32	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			07/19/25 18:32	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			07/19/25 18:32	1
tert-Butylbenzene	ND		1.0		ug/L			07/19/25 18:32	1
Tetrachloroethene	ND		1.0		ug/L			07/19/25 18:32	1
Tetrahydrofuran	ND		10		ug/L			07/19/25 18:32	1
Toluene	ND		1.0		ug/L			07/19/25 18:32	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/19/25 18:32	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/19/25 18:32	1
Trichloroethene	ND		1.0		ug/L			07/19/25 18:32	1
Trichlorofluoromethane	ND		5.0		ug/L			07/19/25 18:32	1
Trihalomethanes, Total	ND		1.0		ug/L			07/19/25 18:32	1
Vinyl acetate	ND		10		ug/L			07/19/25 18:32	1
Vinyl chloride	ND		0.50		ug/L			07/19/25 18:32	1
Xylenes, Total	ND		1.0		ug/L			07/19/25 18:32	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*07/19/25 18:32*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*07/19/25 18:32*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*07/19/25 18:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*60 - 140*		*07/19/25 18:32*	*1*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*		*07/19/25 18:32*	*1*
Dibromofluoromethane	*101*		*60 - 140*		*07/19/25 18:32*	*1*
Toluene-d8 (Surr)	*102*		*60 - 140*		*07/19/25 18:32*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		07/23/25 15:14	07/28/25 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*67*		*30 - 187*	*07/23/25 15:14*	*07/28/25 22:59*	*1*
Benzo(a)pyrene-d12 (Surr)	*62*		*32 - 194*	*07/23/25 15:14*	*07/28/25 22:59*	*1*

Client Sample ID: Well 15 120hr

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161572-1

Matrix: Water

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Methylnaphthalene-d10	*62*		*45 - 130*	*07/23/25 15:14*	*07/28/25 22:59*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
1,2-Dichlorobenzene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
1,3-Dichlorobenzene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
1,4-Dichlorobenzene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
1-Methylnaphthalene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2,4,5-Trichlorophenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2,4,6-Trichlorophenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2,4-Dichlorophenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2,4-Dimethylphenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2,4-Dinitrophenol	ND		50	ug/L		07/23/25 09:25	07/26/25 02:55	1
2,4-Dinitrotoluene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2,6-Dichlorophenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2,6-Dinitrotoluene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2-Chloronaphthalene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2-Chlorophenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2-Methylnaphthalene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2-Methylphenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2-Nitroaniline	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
2-Nitrophenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
3,3'-Dichlorobenzidine	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
3/4-Methylphenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
3-Nitroaniline	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
4,6-Dinitro-2-methylphenol	ND		50	ug/L		07/23/25 09:25	07/26/25 02:55	1
4-Bromophenyl phenyl ether	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
4-Chloro-3-methylphenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
4-Chloroaniline	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
4-Chlorophenyl phenyl ether	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
4-Nitroaniline	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
4-Nitrophenol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Acenaphthene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Acenaphthylene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Acetophenone	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Alpha-Terpineol	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Aniline	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Anthracene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Azobenzene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Benzidine	ND	*- *1	50	ug/L		07/23/25 09:25	07/26/25 02:55	1
Benzo[a]anthracene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Benzo[a]pyrene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Benzo[b]fluoranthene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Benzo[g,h,i]perylene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Benzo[k]fluoranthene	ND		9.9	ug/L		07/23/25 09:25	07/26/25 02:55	1
Benzoic acid	ND		50	ug/L		07/23/25 09:25	07/26/25 02:55	1

Client Sample ID: Well 15 120hr

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161572-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzyl alcohol	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Bis (2-chloroethoxy) methane	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
bis (2-chloroisopropyl) ether	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Bis(2-chloroethyl)ether	ND		25		ug/L		07/23/25 09:25	07/26/25 02:55	1
Bis(2-ethylhexyl) phthalate	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Butyl benzyl phthalate	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Carbazole	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Chrysene	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Dibenz(a,h)anthracene	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Dibenzofuran	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Diethyl phthalate	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Dimethyl phthalate	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Di-n-butyl phthalate	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Di-n-octyl phthalate	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Fluoranthene	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Fluorene	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Hexachloro-1,3-butadiene	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Hexachlorobenzene	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Hexachlorocyclopentadiene	ND		25		ug/L		07/23/25 09:25	07/26/25 02:55	1
Hexachloroethane	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Indeno[1,2,3-cd]pyrene	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Isophorone	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Naphthalene	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
n-Decane	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Nitrobenzene	ND		25		ug/L		07/23/25 09:25	07/26/25 02:55	1
N-Nitrosodimethylamine	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
N-Nitrosodi-n-propylamine	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
N-Nitrosodiphenylamine	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
n-Octadecane	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Pentachlorophenol	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Phenanthrene	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Phenol	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Pyrene	ND		9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1
Pyridine	ND	*- *1	9.9		ug/L		07/23/25 09:25	07/26/25 02:55	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*07/23/25 09:25*	*07/26/25 02:55*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*07/23/25 09:25*	*07/26/25 02:55*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*07/23/25 09:25*	*07/26/25 02:55*	*1*
2,3,7,8-TCDD TIC	*ND*		*ug/L*			*1746-01-6*	*07/23/25 09:25*	*07/26/25 02:55*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*07/23/25 09:25*	*07/26/25 02:55*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*07/23/25 09:25*	*07/26/25 02:55*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*101*		*33 - 139*	*07/23/25 09:25*	*07/26/25 02:55*	*1*
2-Fluorobiphenyl (Surr)	*84*		*33 - 126*	*07/23/25 09:25*	*07/26/25 02:55*	*1*
2-Fluorophenol (Surr)	*65*		*12 - 120*	*07/23/25 09:25*	*07/26/25 02:55*	*1*
Nitrobenzene-d5 (Surr)	*99*		*36 - 120*	*07/23/25 09:25*	*07/26/25 02:55*	*1*
Phenol-d6 (Surr)	*56*		*10 - 120*	*07/23/25 09:25*	*07/26/25 02:55*	*1*
p-Terphenyl-d14 (Surr)	*91*		*47 - 131*	*07/23/25 09:25*	*07/26/25 02:55*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120hr

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161572-1

Matrix: Water

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			07/29/25 06:48	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			07/29/25 06:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*20 - 144*		*07/29/25 06:48*	*1*

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.010	ug/L		07/21/25 05:53	07/24/25 17:08	1
4,4'-DDE	ND		0.0051	ug/L		07/21/25 05:53	07/24/25 17:08	1
4,4'-DDT	ND		0.0051	ug/L		07/21/25 05:53	07/24/25 17:08	1
Aldrin	ND		0.0051	ug/L		07/21/25 05:53	07/24/25 17:08	1
alpha-BHC	ND		0.0021	ug/L		07/21/25 05:53	07/24/25 17:08	1
alpha-Chlordane	ND		0.051	ug/L		07/21/25 05:53	07/24/25 17:08	1
beta-BHC	ND		0.0077	ug/L		07/21/25 05:53	07/24/25 17:08	1
Chlordane	ND		0.051	ug/L		07/21/25 05:53	07/24/25 17:08	1
delta-BHC	ND		0.0051	ug/L		07/21/25 05:53	07/24/25 17:08	1
Dieldrin	ND		0.0051	ug/L		07/21/25 05:53	07/24/25 17:08	1
Endosulfan I	ND		0.0021	ug/L		07/21/25 05:53	07/24/25 17:08	1
Endosulfan II	ND		0.010	ug/L		07/21/25 05:53	07/24/25 17:08	1
Endosulfan sulfate	ND		0.0051	ug/L		07/21/25 05:53	07/24/25 17:08	1
Endrin	ND		0.0051	ug/L		07/21/25 05:53	07/24/25 17:08	1
Endrin aldehyde	ND		0.051	ug/L		07/21/25 05:53	07/24/25 17:08	1
Endrin ketone	ND		0.0051	ug/L		07/21/25 05:53	07/24/25 17:08	1
gamma-BHC (Lindane)	ND		0.0021	ug/L		07/21/25 05:53	07/24/25 17:08	1
gamma-Chlordane	ND		0.015	ug/L		07/21/25 05:53	07/24/25 17:08	1
Heptachlor	ND		0.0021	ug/L		07/21/25 05:53	07/24/25 17:08	1
Heptachlor epoxide	ND		0.010	ug/L		07/21/25 05:53	07/24/25 17:08	1
Methoxychlor	ND		0.010	ug/L		07/21/25 05:53	07/24/25 17:08	1
Toxaphene	ND		0.10	ug/L		07/21/25 05:53	07/24/25 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*95*		*20 - 154*	*07/21/25 05:53*	*07/24/25 17:08*	*1*
Tetrachloro-m-xylene (Surr)	*70*		*20 - 139*	*07/21/25 05:53*	*07/24/25 17:08*	*1*

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.10	ug/L		07/21/25 05:53	07/22/25 18:37	1
Aroclor-1221	ND		0.10	ug/L		07/21/25 05:53	07/22/25 18:37	1
Aroclor-1232	ND		0.10	ug/L		07/21/25 05:53	07/22/25 18:37	1
Aroclor-1242	ND		0.10	ug/L		07/21/25 05:53	07/22/25 18:37	1
Aroclor-1248	ND		0.10	ug/L		07/21/25 05:53	07/22/25 18:37	1
Aroclor-1254	ND		0.10	ug/L		07/21/25 05:53	07/22/25 18:37	1
Aroclor-1260	ND		0.10	ug/L		07/21/25 05:53	07/22/25 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*87*		*20 - 154*	*07/21/25 05:53*	*07/22/25 18:37*	*1*
Tetrachloro-m-xylene (Surr)	*62*		*20 - 139*	*07/21/25 05:53*	*07/22/25 18:37*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120hr

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161572-1

Matrix: Water

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		07/24/25 23:10	07/29/25 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*124*		*46 - 136*	*07/24/25 23:10*	*07/29/25 00:46*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*108*		*46 - 136*	*07/24/25 23:10*	*07/29/25 00:46*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND	*+	260	ug/L		07/23/25 09:22	08/24/25 23:00	1
Diesel Range Organics [C10-C28]	ND		53	ug/L		07/23/25 09:22	08/24/25 23:00	1
C24-C44	ND		260	ug/L		07/23/25 09:22	08/24/25 23:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*86*		*53 - 151*	*07/23/25 09:22*	*08/24/25 23:00*	*1*
n-Octacosane (Surr)	*86*		*53 - 151*	*07/23/25 09:22*	*08/24/25 23:00*	*1*

Method: SW846 8015C - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13	mg/L		07/30/25 12:32	07/30/25 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*51*		*10 - 130*	*07/30/25 12:32*	*07/30/25 21:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**59**		4.0	mg/L			07/22/25 07:55	40
Fluoride	ND		4.0	mg/L			07/22/25 07:55	40
Sulfate	**2800**		40	mg/L			07/22/25 07:55	40

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20000**		500	mg/L			07/22/25 08:56	500

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.5**		0.50	ng/L			07/25/25 17:34	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		5.0	ug/L		08/06/25 00:00	08/07/25 02:07	1
Arsenic	ND		0.70	ug/L		07/30/25 10:51	07/30/25 23:44	1
Barium	**27**		0.50	ug/L		07/30/25 10:51	07/30/25 23:44	1
Cadmium	**0.040**		0.020	ug/L		07/30/25 10:51	07/30/25 23:44	1
Chromium	**1.4**		1.0	ug/L		07/30/25 10:51	07/30/25 23:44	1
Copper	ND		0.50	ug/L		07/30/25 10:51	07/30/25 23:44	1
Iron	**12**		6.0	ug/L		08/11/25 00:00	08/12/25 00:09	1
Lead	ND		0.050	ug/L		07/30/25 10:51	07/30/25 23:44	1
Manganese	**0.27**		0.050	ug/L		08/06/25 00:00	08/07/25 02:07	1
Selenium	ND		0.70	ug/L		07/30/25 10:51	07/30/25 23:44	1
Silver	ND		1.0	ug/L		07/30/25 10:51	07/30/25 23:44	1
Vanadium	**1.8**		1.0	ug/L		07/30/25 10:51	07/30/25 23:44	1
Zinc	**32**		1.0	ug/L		07/30/25 10:51	07/30/25 23:44	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120hr

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161572-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**430**		2.0		mg/L		08/01/25 15:49	08/08/25 21:34	4
Iron	ND		0.50		mg/L		08/01/25 15:49	08/08/25 15:21	1
Lithium	ND		0.10		mg/L		08/01/25 15:49	08/08/25 15:21	1
Magnesium	**1400**		50		mg/L		08/01/25 15:49	08/08/25 18:50	100
Potassium	**430**		13		mg/L		08/01/25 15:49	08/08/25 21:34	4
Sodium	**11000**		60		mg/L		08/01/25 15:49	08/08/25 18:50	100
SiO2, Silica	**28**		2.3		mg/L		08/01/25 15:49	08/08/25 15:21	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Strontium	**7.7**		0.050		mg/L			08/06/25 15:31	5

Method: SW846 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		20		ug/L			08/05/25 17:17	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		0.97		mg/L		07/20/25 11:39	07/24/25 15:57	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		08/01/25 12:27	08/04/25 15:20	1
Chemical Oxygen Demand (EPA 410.4)	**42**		10		mg/L		08/03/25 08:40	08/03/25 08:20	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**97**		5.0		mg/L			07/30/25 16:37	1
Bicarbonate (as CaCO3) (SM 2320B)	**97**		5.0		mg/L			07/30/25 16:37	1
Carbonate (as CaCO3) (SM 2320B)	ND		5.0		mg/L			07/30/25 16:37	1
Hydroxide (as CaCO3) (SM 2320B)	ND		5.0		mg/L			07/30/25 16:37	1
Salinity (SM 2520B)	**34**		2.0		psu			07/21/25 15:13	1
Total Dissolved Solids (SM 2540C)	**34000**		1000		mg/L			07/23/25 12:38	1
Carbon, Non-Purgable Organic (SM 5310C)	ND	F1	0.50		mg/L			08/13/25 17:47	1

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	**188**	**G**	50.7	54.0	4.00	63.8	pCi/L	07/28/25 07:56	07/29/25 18:18	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.334	U	0.364	0.365	1.00	0.363	pCi/L	07/24/25 08:08	08/08/25 20:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*30 - 110*	*07/24/25 08:08*	*08/08/25 20:35*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120hr

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161572-1

Matrix: Water

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.373	U G	0.641	0.642	1.00	1.10	pCi/L	07/24/25 08:13	08/08/25 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*30 - 110*	*07/24/25 08:13*	*08/08/25 11:40*	*1*
Y Carrier	*78.1*		*30 - 110*	*07/24/25 08:13*	*08/08/25 11:40*	*1*

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	-0.534	U G	2.77	2.77	3.00	3.09	pCi/L	07/29/25 14:25	08/11/25 15:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*43.7*		*30 - 110*	*07/29/25 14:25*	*08/11/25 15:14*	*1*
Y Carrier	*90.1*		*30 - 110*	*07/29/25 14:25*	*08/11/25 15:14*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.707	U	0.737	0.739	5.00	1.10	pCi/L		08/11/25 14:23	1

Method: SM7110C - Gross Alpha by Co-Precipitation

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	**3.23**		1.22	1.28	3.00	0.860	pCi/L	07/25/25 10:05	07/29/25 07:35	1

Method: HASL U-02-RC - Uranium, Method U02

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Uranium-234	**1.12**		0.329	0.342	1.00	0.109	pCi/L	07/24/25 13:19	07/31/25 09:11	1
Uranium-235	0.000	U	0.0111	0.0111	1.00	0.113	pCi/L	07/24/25 13:19	07/31/25 09:11	1
Uranium-238	**0.662**		0.250	0.256	1.00	0.0909	pCi/L	07/24/25 13:19	07/31/25 09:11	1
Total Uranium	**1.78**		0.413	0.427	1.00	0.113	pCi/L	07/24/25 13:19	07/31/25 09:11	1

Tracer	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Uranium-232	*77.5*		*30 - 110*	*07/24/25 13:19*	*07/31/25 09:11*	*1*

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
380-161572-1	Well 15 120hr	98	109	101	102
LCS 570-599498/1002	Lab Control Sample	95	97	96	96
LCSD 570-599498/3	Lab Control Sample Dup	97	98	95	97
MB 570-599498/5	Method Blank	93	109	100	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-161572-1	Well 15 120hr	101	84	65	99	56	91
LCS 570-600577/2-A	Lab Control Sample	93	84	50	88	33	91
LCSD 570-600577/3-A	Lab Control Sample Dup	104	91	58	97	37	99
MB 570-600577/1-A	Method Blank	93	86	44	101	27	83

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FLN10	BAPd12	MNPd10
Lab Sample ID	Client Sample ID	(30-187)	(32-194)	(45-130)
380-161572-1	Well 15 120hr	67	62	62
LCS 410-675323/2-A	Lab Control Sample	79	79	67
LCSD 410-675323/3-A	Lab Control Sample Dup	68	67	58
MB 410-675323/1-A	Method Blank	75	73	72

Surrogate Legend

FLN10 = Fluoranthene-d10 (Surr)
BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB1 (20-144)							
380-161572-1	Well 15 120hr	75							
LCS 570-603559/1008	Lab Control Sample	93							
LCSD 570-603559/9	Lab Control Sample Dup	95							
MB 570-603559/10	Method Blank	90							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB2 (20-154)	TCX2 (20-139)						
380-161572-1	Well 15 120hr	95	70						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)						
LCS 570-599806/2-A	Lab Control Sample	82	73						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX2 (20-139)						
LCSD 570-599806/3-A	Lab Control Sample Dup	93	82						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB2 (20-154)	TCX1 (20-139)						
MB 570-599806/1-A	Method Blank	87	64						

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(20-154)	(20-139)
380-161572-1	Well 15 120hr	87	62
LCS 570-599806/4-A	Lab Control Sample	82	63
LCSD 570-599806/5-A	Lab Control Sample Dup	65	49
MB 570-599806/1-A	Method Blank	103	58

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
380-161572-1	Well 15 120hr	124	108
380-161572-1 MS	Well 15 120hr	132	107
LCS 410-676092/2-A	Lab Control Sample	109	109
LCSD 410-676092/3-A	Lab Control Sample Dup	112	109
MB 410-676092/1-A	Method Blank	109	109

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTCSN1	OTCSN1
Lab Sample ID	Client Sample ID	(53-151)	(53-151)
380-161572-1	Well 15 120hr	86	86
LCS 570-601068/4-A	Lab Control Sample	93	93
LCSD 570-601068/5-A	Lab Control Sample Dup	92	92
MB 570-601068/1-A	Method Blank	72	72

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015C - Glycols- Direct Injection (GC/FID)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		14BD1
Lab Sample ID	Client Sample ID	(10-130)
380-161572-1	Well 15 120hr	51
LCS 410-678317/2-A	Lab Control Sample	107
MB 410-678317/1-A	Method Blank	87

Surrogate Legend

14BD = 1,4-Butanediol

Tracer/Carrier Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba (30-110)							
380-161572-1	Well 15 120hr	89.2							
LCS 160-728731/2-A	Lab Control Sample	90.9							
MB 160-728731/1-A	Method Blank	89.9							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)						
380-161572-1	Well 15 120hr	89.2	78.1						
LCS 160-728732/2-A	Lab Control Sample	90.9	80.7						
MB 160-728732/1-A	Method Blank	89.9	78.1						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)						
380-161572-1	Well 15 120hr	43.7	90.1						
LCS 160-729588/2-A	Lab Control Sample	79.9	87.1						
LCSD 160-729588/3-A	Lab Control Sample Dup	84.0	95.3						
MB 160-729588/1-A	Method Blank	84.9	90.1						

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: U-02-RC - Uranium, Method U02

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	U-232 (30-110)							
380-161572-1	Well 15 120hr	77.5							
LCS 160-728887/2-A	Lab Control Sample	81.2							
MB 160-728887/1-A	Method Blank	79.5							

Tracer/Carrier Legend

U-232 = Uranium-232

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-599498/5
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/19/25 11:20	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/19/25 11:20	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/19/25 11:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/19/25 11:20	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/19/25 11:20	1
1,1-Dichloroethane	ND		1.0		ug/L			07/19/25 11:20	1
1,1-Dichloroethene	ND		1.0		ug/L			07/19/25 11:20	1
1,1-Dichloropropene	ND		1.0		ug/L			07/19/25 11:20	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/19/25 11:20	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/19/25 11:20	1
1,2-Dibromoethane	ND		1.0		ug/L			07/19/25 11:20	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,2-Dichloroethane	ND		0.50		ug/L			07/19/25 11:20	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/19/25 11:20	1
1,2-Dichloropropane	ND		1.0		ug/L			07/19/25 11:20	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,3-Dichloropropane	ND		1.0		ug/L			07/19/25 11:20	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/19/25 11:20	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/19/25 11:20	1
2,2-Dichloropropane	ND		1.0		ug/L			07/19/25 11:20	1
2-Butanone	ND		10		ug/L			07/19/25 11:20	1
2-Chlorotoluene	ND		1.0		ug/L			07/19/25 11:20	1
2-Hexanone	ND		10		ug/L			07/19/25 11:20	1
4-Chlorotoluene	ND		1.0		ug/L			07/19/25 11:20	1
4-Methyl-2-pentanone	ND		10		ug/L			07/19/25 11:20	1
Acetone	ND		12		ug/L			07/19/25 11:20	1
Acrylonitrile	ND		2.0		ug/L			07/19/25 11:20	1
Benzene	ND		0.50		ug/L			07/19/25 11:20	1
Bromobenzene	ND		1.0		ug/L			07/19/25 11:20	1
Bromochloromethane	ND		1.0		ug/L			07/19/25 11:20	1
Bromodichloromethane	ND		1.0		ug/L			07/19/25 11:20	1
Bromoform	ND		1.0		ug/L			07/19/25 11:20	1
Bromomethane	ND		5.0		ug/L			07/19/25 11:20	1
Carbon disulfide	ND		10		ug/L			07/19/25 11:20	1
Carbon tetrachloride	ND		0.50		ug/L			07/19/25 11:20	1
Chlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
Chloroethane	ND		1.0		ug/L			07/19/25 11:20	1
Chloroform	ND		1.0		ug/L			07/19/25 11:20	1
Chloromethane	ND		1.0		ug/L			07/19/25 11:20	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/19/25 11:20	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/19/25 11:20	1
Dibromochloromethane	ND		1.0		ug/L			07/19/25 11:20	1
Dibromomethane	ND		1.0		ug/L			07/19/25 11:20	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-599498/5
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			07/19/25 11:20	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/19/25 11:20	1
Ethanol	ND		100		ug/L			07/19/25 11:20	1
Ethylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			07/19/25 11:20	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/19/25 11:20	1
Isopropanol	ND		50		ug/L			07/19/25 11:20	1
Isopropylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
m,p-Xylene	ND		1.0		ug/L			07/19/25 11:20	1
Methylene Chloride	ND		2.0		ug/L			07/19/25 11:20	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			07/19/25 11:20	1
Naphthalene	ND		10		ug/L			07/19/25 11:20	1
n-Butylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
N-Propylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
o-Xylene	ND		1.0		ug/L			07/19/25 11:20	1
p-Isopropyltoluene	ND		1.0		ug/L			07/19/25 11:20	1
sec-Butylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
Styrene	ND		1.0		ug/L			07/19/25 11:20	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			07/19/25 11:20	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			07/19/25 11:20	1
tert-Butylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
Tetrachloroethene	ND		1.0		ug/L			07/19/25 11:20	1
Tetrahydrofuran	ND		10		ug/L			07/19/25 11:20	1
Toluene	ND		1.0		ug/L			07/19/25 11:20	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/19/25 11:20	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/19/25 11:20	1
Trichloroethene	ND		1.0		ug/L			07/19/25 11:20	1
Trichlorofluoromethane	ND		5.0		ug/L			07/19/25 11:20	1
Trihalomethanes, Total	ND		1.0		ug/L			07/19/25 11:20	1
Vinyl acetate	ND		10		ug/L			07/19/25 11:20	1
Vinyl chloride	ND		0.50		ug/L			07/19/25 11:20	1
Xylenes, Total	ND		1.0		ug/L			07/19/25 11:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*60 - 140*		*07/19/25 11:20*	*1*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*		*07/19/25 11:20*	*1*
Dibromofluoromethane	*100*		*60 - 140*		*07/19/25 11:20*	*1*
Toluene-d8 (Surr)	*102*		*60 - 140*		*07/19/25 11:20*	*1*

Lab Sample ID: LCS 570-599498/1002
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	18.8		ug/L		94	60 - 140
1,1,1-Trichloroethane	20.0	17.7		ug/L		89	70 - 130
1,1,2,2-Tetrachloroethane	20.0	17.8		ug/L		89	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	16.6		ug/L		83	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-599498/1002
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	20.0	18.0		ug/L		90	70 - 130
1,1-Dichloroethane	20.0	17.7		ug/L		88	70 - 130
1,1-Dichloroethene	20.0	16.5		ug/L		83	50 - 150
1,1-Dichloropropene	20.0	17.6		ug/L		88	60 - 140
1,2,3-Trichlorobenzene	20.0	21.2		ug/L		106	60 - 140
1,2,3-Trichloropropane	20.0	18.0		ug/L		90	60 - 140
1,2,4-Trichlorobenzene	20.0	21.3		ug/L		107	60 - 140
1,2,4-Trimethylbenzene	20.0	18.7		ug/L		94	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	19.2		ug/L		96	60 - 140
1,2-Dibromoethane	20.0	19.1		ug/L		95	60 - 140
1,2-Dichlorobenzene	20.0	19.7		ug/L		99	65 - 135
1,2-Dichloroethane	20.0	17.9		ug/L		90	70 - 130
1,2-Dichloropropane	20.0	18.3		ug/L		92	35 - 165
1,3,5-Trimethylbenzene	20.0	18.1		ug/L		91	60 - 140
1,3-Dichlorobenzene	20.0	19.5		ug/L		97	70 - 130
1,3-Dichloropropane	20.0	18.4		ug/L		92	60 - 140
1,4-Dichlorobenzene	20.0	18.8		ug/L		94	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	16.8		ug/L		84	60 - 140
2,2-Dichloropropane	20.0	19.0		ug/L		95	60 - 140
2-Butanone	20.0	17.5		ug/L		88	60 - 140
2-Chloroethyl vinyl ether	20.0	17.1		ug/L		85	1 - 225
2-Chlorotoluene	20.0	17.8		ug/L		89	60 - 140
2-Hexanone	20.0	18.1		ug/L		90	60 - 140
4-Chlorotoluene	20.0	18.5		ug/L		93	60 - 140
4-Methyl-2-pentanone	20.0	18.9		ug/L		94	60 - 140
Acetone	20.0	16.1		ug/L		81	60 - 140
Acrolein	40.0	28.7		ug/L		72	60 - 140
Acrylonitrile	20.0	18.5		ug/L		92	60 - 140
Benzene	20.0	18.1		ug/L		91	65 - 135
Bromobenzene	20.0	19.0		ug/L		95	60 - 140
Bromochloromethane	20.0	18.9		ug/L		95	60 - 140
Bromodichloromethane	20.0	19.2		ug/L		96	65 - 135
Bromoform	20.0	19.6		ug/L		98	70 - 130
Bromomethane	20.0	15.3		ug/L		76	15 - 185
Carbon disulfide	20.0	16.1		ug/L		80	60 - 140
Carbon tetrachloride	20.0	19.9		ug/L		100	70 - 130
Chlorobenzene	20.0	18.3		ug/L		92	65 - 135
Chloroethane	20.0	18.0		ug/L		90	40 - 160
Chloroform	20.0	17.9		ug/L		89	70 - 135
Chloromethane	20.0	12.0		ug/L		60	1 - 205
cis-1,2-Dichloroethene	20.0	18.4		ug/L		92	60 - 140
cis-1,3-Dichloropropene	20.0	18.9		ug/L		95	25 - 175
Dibromochloromethane	20.0	18.5		ug/L		93	70 - 135
Dibromomethane	20.0	19.1		ug/L		95	60 - 140
Dichlorodifluoromethane	20.0	18.4		ug/L		92	60 - 140
Di-isopropyl ether (DIPE)	20.0	17.0		ug/L		85	60 - 140
Ethanol	200	173		ug/L		87	60 - 140
Ethylbenzene	20.0	17.6		ug/L		88	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	17.8		ug/L		89	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-599498/1002
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachloro-1,3-butadiene	20.0	19.4		ug/L		97	60 - 140
Isopropanol	100	91.7		ug/L		92	60 - 140
Isopropylbenzene	20.0	17.6		ug/L		88	60 - 140
m,p-Xylene	40.0	34.7		ug/L		87	60 - 140
Methylene Chloride	20.0	17.6		ug/L		88	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	19.3		ug/L		96	60 - 140
Naphthalene	20.0	19.0		ug/L		95	60 - 140
n-Butylbenzene	20.0	18.9		ug/L		94	60 - 140
N-Propylbenzene	20.0	17.8		ug/L		89	60 - 140
o-Xylene	20.0	18.0		ug/L		90	60 - 140
p-Isopropyltoluene	20.0	18.9		ug/L		95	60 - 140
sec-Butylbenzene	20.0	18.8		ug/L		94	60 - 140
Styrene	20.0	18.3		ug/L		92	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	18.3		ug/L		92	60 - 140
tert-Butyl alcohol (TBA)	100	94.0		ug/L		94	60 - 140
tert-Butylbenzene	20.0	19.1		ug/L		95	60 - 140
Tetrachloroethene	20.0	18.4		ug/L		92	70 - 130
Tetrahydrofuran	20.0	18.0		ug/L		90	60 - 140
Toluene	20.0	18.0		ug/L		90	70 - 130
trans-1,2-Dichloroethene	20.0	17.7		ug/L		89	70 - 130
trans-1,3-Dichloropropene	20.0	20.0		ug/L		100	50 - 150
Trichloroethene	20.0	18.1		ug/L		91	65 - 135
Trichlorofluoromethane	20.0	18.1		ug/L		90	50 - 150
Vinyl acetate	20.0	19.3		ug/L		97	60 - 140
Vinyl chloride	20.0	17.6		ug/L		88	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*60 - 140*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*
Dibromofluoromethane	*96*		*60 - 140*
Toluene-d8 (Surr)	*96*		*60 - 140*

Lab Sample ID: LCSD 570-599498/3
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	18.2		ug/L		91	60 - 140	4	30
1,1,1-Trichloroethane	20.0	17.0		ug/L		85	70 - 130	4	36
1,1,2,2-Tetrachloroethane	20.0	18.3		ug/L		92	60 - 140	3	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	16.0		ug/L		80	60 - 140	4	30
1,1,2-Trichloroethane	20.0	18.2		ug/L		91	70 - 130	1	45
1,1-Dichloroethane	20.0	17.4		ug/L		87	70 - 130	2	40
1,1-Dichloroethene	20.0	16.0		ug/L		80	50 - 150	3	32
1,1-Dichloropropene	20.0	16.7		ug/L		83	60 - 140	6	30
1,2,3-Trichlorobenzene	20.0	21.3		ug/L		107	60 - 140	1	30
1,2,3-Trichloropropane	20.0	18.6		ug/L		93	60 - 140	3	30
1,2,4-Trichlorobenzene	20.0	21.2		ug/L		106	60 - 140	1	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-599498/3
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	20.0	18.3		ug/L		91	60 - 140	2	30
1,2-Dibromo-3-Chloropropane	20.0	19.3		ug/L		96	60 - 140	0	30
1,2-Dibromoethane	20.0	18.7		ug/L		94	60 - 140	2	30
1,2-Dichlorobenzene	20.0	19.3		ug/L		96	65 - 135	2	57
1,2-Dichloroethane	20.0	17.9		ug/L		89	70 - 130	0	49
1,2-Dichloropropane	20.0	18.0		ug/L		90	35 - 165	2	55
1,3,5-Trimethylbenzene	20.0	17.8		ug/L		89	60 - 140	2	30
1,3-Dichlorobenzene	20.0	19.2		ug/L		96	70 - 130	1	43
1,3-Dichloropropane	20.0	17.8		ug/L		89	60 - 140	3	30
1,4-Dichlorobenzene	20.0	18.3		ug/L		91	65 - 135	3	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	16.2		ug/L		81	60 - 140	3	30
2,2-Dichloropropane	20.0	18.3		ug/L		92	60 - 140	3	30
2-Butanone	20.0	16.7		ug/L		84	60 - 140	5	30
2-Chloroethyl vinyl ether	20.0	17.4		ug/L		87	1 - 225	2	71
2-Chlorotoluene	20.0	17.6		ug/L		88	60 - 140	1	30
2-Hexanone	20.0	18.5		ug/L		92	60 - 140	2	30
4-Chlorotoluene	20.0	18.0		ug/L		90	60 - 140	3	30
4-Methyl-2-pentanone	20.0	19.5		ug/L		97	60 - 140	3	30
Acetone	20.0	14.1		ug/L		71	60 - 140	13	30
Acrolein	40.0	26.3		ug/L		66	60 - 140	9	60
Acrylonitrile	20.0	18.9		ug/L		95	60 - 140	3	60
Benzene	20.0	17.5		ug/L		87	65 - 135	4	61
Bromobenzene	20.0	18.5		ug/L		92	60 - 140	3	30
Bromochloromethane	20.0	18.6		ug/L		93	60 - 140	2	30
Bromodichloromethane	20.0	19.1		ug/L		96	65 - 135	1	56
Bromoform	20.0	19.0		ug/L		95	70 - 130	3	42
Bromomethane	20.0	16.1		ug/L		81	15 - 185	5	61
Carbon disulfide	20.0	15.8		ug/L		79	60 - 140	2	30
Carbon tetrachloride	20.0	19.1		ug/L		96	70 - 130	4	41
Chlorobenzene	20.0	17.8		ug/L		89	65 - 135	3	53
Chloroethane	20.0	18.1		ug/L		91	40 - 160	1	78
Chloroform	20.0	17.9		ug/L		90	70 - 135	0	30
Chloromethane	20.0	13.5		ug/L		68	1 - 205	12	60
cis-1,2-Dichloroethene	20.0	18.0		ug/L		90	60 - 140	2	30
cis-1,3-Dichloropropene	20.0	18.6		ug/L		93	25 - 175	2	58
Dibromochloromethane	20.0	18.1		ug/L		91	70 - 135	2	50
Dibromomethane	20.0	19.6		ug/L		98	60 - 140	3	30
Dichlorodifluoromethane	20.0	17.7		ug/L		88	60 - 140	4	30
Di-isopropyl ether (DIPE)	20.0	16.6		ug/L		83	60 - 140	3	30
Ethanol	200	149		ug/L		75	60 - 140	15	30
Ethylbenzene	20.0	17.2		ug/L		86	60 - 140	2	63
Ethyl-t-butyl ether (ETBE)	20.0	17.3		ug/L		87	60 - 140	2	30
Hexachloro-1,3-butadiene	20.0	18.6		ug/L		93	60 - 140	4	30
Isopropanol	100	98.8		ug/L		99	60 - 140	7	30
Isopropylbenzene	20.0	17.2		ug/L		86	60 - 140	3	30
m,p-Xylene	40.0	33.7		ug/L		84	60 - 140	3	30
Methylene Chloride	20.0	17.1		ug/L		86	60 - 140	2	28
Methyl-t-Butyl Ether (MTBE)	20.0	18.8		ug/L		94	60 - 140	3	30
Naphthalene	20.0	19.4		ug/L		97	60 - 140	2	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-599498/3
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
n-Butylbenzene	20.0	18.1		ug/L		91	60 - 140	4	30
N-Propylbenzene	20.0	17.1		ug/L		86	60 - 140	4	30
o-Xylene	20.0	17.4		ug/L		87	60 - 140	4	30
p-Isopropyltoluene	20.0	17.9		ug/L		90	60 - 140	6	30
sec-Butylbenzene	20.0	18.0		ug/L		90	60 - 140	4	30
Styrene	20.0	17.6		ug/L		88	60 - 140	4	30
Tert-amyl-methyl ether (TAME)	20.0	18.2		ug/L		91	60 - 140	1	30
tert-Butyl alcohol (TBA)	100	94.3		ug/L		94	60 - 140	0	30
tert-Butylbenzene	20.0	18.5		ug/L		92	60 - 140	3	30
Tetrachloroethene	20.0	17.7		ug/L		89	70 - 130	4	39
Tetrahydrofuran	20.0	17.6		ug/L		88	60 - 140	2	30
Toluene	20.0	17.7		ug/L		89	70 - 130	1	41
trans-1,2-Dichloroethene	20.0	17.1		ug/L		85	70 - 130	4	45
trans-1,3-Dichloropropene	20.0	19.3		ug/L		97	50 - 150	3	86
Trichloroethene	20.0	17.8		ug/L		89	65 - 135	2	48
Trichlorofluoromethane	20.0	17.6		ug/L		88	50 - 150	3	84
Vinyl acetate	20.0	19.6		ug/L		98	60 - 140	2	30
Vinyl chloride	20.0	17.1		ug/L		85	5 - 195	3	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*60 - 140*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*
Dibromofluoromethane	*95*		*60 - 140*
Toluene-d8 (Surr)	*97*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-600577/1-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 600577

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
1,2-Dichlorobenzene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
1,3-Dichlorobenzene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
1,4-Dichlorobenzene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
1-Methylnaphthalene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4,5-Trichlorophenol	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4,6-Trichlorophenol	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4-Dichlorophenol	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4-Dimethylphenol	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4-Dinitrophenol	ND		50	ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4-Dinitrotoluene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
2,6-Dichlorophenol	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
2,6-Dinitrotoluene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
2-Chloronaphthalene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
2-Chlorophenol	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-600577/1-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 600577

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2-Methylphenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2-Nitroaniline	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2-Nitrophenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
3,3'-Dichlorobenzidine	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
3/4-Methylphenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
3-Nitroaniline	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Bromophenyl phenyl ether	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Chloro-3-methylphenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Chloroaniline	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Nitroaniline	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Nitrophenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Acenaphthene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Acenaphthylene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Acetophenone	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Alpha-Terpineol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Aniline	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Anthracene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Azobenzene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzidine	ND		50		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzo[a]anthracene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzo[a]pyrene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzo[b]fluoranthene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzo[g,h,i]perylene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzo[k]fluoranthene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzoic acid	ND		50		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzyl alcohol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Bis(2-chloroethyl)ether	ND		25		ug/L		07/22/25 11:44	07/25/25 22:54	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Butyl benzyl phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Carbazole	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Chrysene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Dibenz(a,h)anthracene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Dibenzofuran	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Diethyl phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Dimethyl phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Di-n-butyl phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Di-n-octyl phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Fluoranthene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Fluorene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Hexachloro-1,3-butadiene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Hexachlorobenzene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Hexachlorocyclopentadiene	ND		25		ug/L		07/22/25 11:44	07/25/25 22:54	1
Hexachloroethane	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-600577/1-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 600577

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Naphthalene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
n-Decane	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Nitrobenzene	ND		25	ug/L		07/22/25 11:44	07/25/25 22:54	1
N-Nitrosodimethylamine	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
N-Nitrosodiphenylamine	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
n-Octadecane	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Pentachlorophenol	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Phenanthrene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Phenol	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Pyrene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Pyridine	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*07/22/25 11:44*	*07/25/25 22:54*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*93*		*33 - 139*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
2-Fluorobiphenyl (Surr)	*86*		*33 - 126*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
2-Fluorophenol (Surr)	*44*		*12 - 120*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
Nitrobenzene-d5 (Surr)	*101*		*36 - 120*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
Phenol-d6 (Surr)	*27*		*10 - 120*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
p-Terphenyl-d14 (Surr)	*83*		*47 - 131*	*07/22/25 11:44*	*07/25/25 22:54*	*1*

Lab Sample ID: LCS 570-600577/2-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 600577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	100	88.2		ug/L		88	57 - 130
1,2-Dichlorobenzene	100	79.8		ug/L		80	50 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	87.2		ug/L		87	57 - 120
1,3-Dichlorobenzene	100	77.8		ug/L		78	46 - 120
1,4-Dichlorobenzene	100	80.1		ug/L		80	47 - 120
1-Methylnaphthalene	100	91.1		ug/L		91	63 - 120
2,4,5-Trichlorophenol	100	97.3		ug/L		97	62 - 120
2,4,6-Trichlorophenol	100	94.9		ug/L		95	52 - 129
2,4-Dichlorophenol	100	89.5		ug/L		90	53 - 122
2,4-Dimethylphenol	100	85.7		ug/L		86	42 - 120
2,4-Dinitrophenol	100	101		ug/L		101	1 - 173
2,4-Dinitrotoluene	100	93.3		ug/L		93	48 - 127
2,6-Dichlorophenol	100	91.8		ug/L		92	64 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-600577/2-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 600577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,6-Dinitrotoluene	100	94.6		ug/L		95	68 - 137
2-Chloronaphthalene	100	90.3		ug/L		90	65 - 120
2-Chlorophenol	100	89.6		ug/L		90	36 - 120
2-Methylnaphthalene	100	87.9		ug/L		88	60 - 120
2-Methylphenol	100	73.9		ug/L		74	55 - 120
2-Nitroaniline	100	103		ug/L		103	53 - 120
2-Nitrophenol	100	89.6		ug/L		90	45 - 167
3,3'-Dichlorobenzidine	100	80.4		ug/L		80	8 - 213
3/4-Methylphenol	200	128		ug/L		64	41 - 120
3-Nitroaniline	100	94.1		ug/L		94	62 - 120
4,6-Dinitro-2-methylphenol	100	89.5		ug/L		89	53 - 130
4-Bromophenyl phenyl ether	100	91.7		ug/L		92	65 - 120
4-Chloro-3-methylphenol	100	93.6		ug/L		94	41 - 128
4-Chloroaniline	100	83.2		ug/L		83	53 - 120
4-Chlorophenyl phenyl ether	100	102		ug/L		102	38 - 145
4-Nitroaniline	100	99.3		ug/L		99	61 - 120
4-Nitrophenol	100	37.9		ug/L		38	13 - 129
Acenaphthene	100	94.3		ug/L		94	60 - 132
Acenaphthylene	100	93.3		ug/L		93	54 - 126
Acetophenone	100	91.3		ug/L		91	45 - 120
Alpha-Terpineol	100	85.2		ug/L		85	60 - 140
Aniline	100	60.6		ug/L		61	50 - 120
Anthracene	100	86.4		ug/L		86	43 - 120
Azobenzene	100	87.2		ug/L		87	57 - 120
Benzidine	100	ND	*-	ug/L		0.4	20 - 143
Benzo[a]anthracene	100	93.4		ug/L		93	42 - 133
Benzo[a]pyrene	100	94.5		ug/L		94	32 - 148
Benzo[b]fluoranthene	100	93.1		ug/L		93	42 - 140
Benzo[g,h,i]perylene	100	92.6		ug/L		93	1 - 195
Benzo[k]fluoranthene	100	97.0		ug/L		97	25 - 146
Benzoic acid	100	34.1	J	ug/L		34	20 - 120
Benzyl alcohol	100	87.0		ug/L		87	47 - 120
Bis (2-chloroethoxy) methane	100	95.4		ug/L		95	49 - 165
bis (2-chloroisopropyl) ether	100	85.2		ug/L		85	63 - 139
Bis(2-chloroethyl)ether	100	97.8		ug/L		98	43 - 126
Bis(2-ethylhexyl) phthalate	100	93.6		ug/L		94	29 - 137
Butyl benzyl phthalate	100	86.6		ug/L		87	1 - 140
Chrysene	100	91.7		ug/L		92	44 - 140
Dibenz(a,h)anthracene	100	90.9		ug/L		91	1 - 200
Dibenzofuran	100	99.9		ug/L		100	61 - 120
Diethyl phthalate	100	104		ug/L		104	1 - 120
Dimethyl phthalate	100	94.3		ug/L		94	1 - 120
Di-n-butyl phthalate	100	93.5		ug/L		94	8 - 120
Di-n-octyl phthalate	100	90.8		ug/L		91	19 - 132
Fluoranthene	100	92.4		ug/L		92	43 - 121
Fluorene	100	99.6		ug/L		100	70 - 120
Hexachloro-1,3-butadiene	100	90.7		ug/L		91	38 - 120
Hexachlorobenzene	100	83.2		ug/L		83	8 - 142
Hexachlorocyclopentadiene	100	88.2		ug/L		88	46 - 135

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-600577/2-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 600577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachloroethane	100	82.8		ug/L		83	55 - 120
Indeno[1,2,3-cd]pyrene	100	90.2		ug/L		90	1 - 151
Isophorone	100	95.7		ug/L		96	47 - 180
Naphthalene	100	86.6		ug/L		87	36 - 120
Nitrobenzene	100	96.1		ug/L		96	54 - 158
N-Nitrosodimethylamine	100	53.9		ug/L		54	38 - 120
N-Nitrosodi-n-propylamine	100	99.1		ug/L		99	14 - 198
N-Nitrosodiphenylamine	100	107		ug/L		107	79 - 127
Pentachlorophenol	100	91.2		ug/L		91	38 - 152
Phenanthrene	100	88.1		ug/L		88	65 - 120
Phenol	100	33.4		ug/L		33	17 - 120
Pyrene	100	95.3		ug/L		95	70 - 120
Pyridine	100	9.17	J *-	ug/L		9	27 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*93*		*33 - 139*
2-Fluorobiphenyl (Surr)	*84*		*33 - 126*
2-Fluorophenol (Surr)	*50*		*12 - 120*
Nitrobenzene-d5 (Surr)	*88*		*36 - 120*
Phenol-d6 (Surr)	*33*		*10 - 120*
p-Terphenyl-d14 (Surr)	*91*		*47 - 131*

Lab Sample ID: LCSD 570-600577/3-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 600577

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	100		ug/L		100	57 - 130	13	30
1,2-Dichlorobenzene	100	91.7		ug/L		92	50 - 120	14	20
1,2-Diphenylhydrazine(as Azobenzene)	100	96.4		ug/L		96	57 - 120	10	20
1,3-Dichlorobenzene	100	92.3		ug/L		92	46 - 120	17	20
1,4-Dichlorobenzene	100	91.0		ug/L		91	47 - 120	13	20
1-Methylnaphthalene	100	101		ug/L		101	63 - 120	10	20
2,4,5-Trichlorophenol	100	104		ug/L		104	62 - 120	7	20
2,4,6-Trichlorophenol	100	108		ug/L		108	52 - 129	13	35
2,4-Dichlorophenol	100	102		ug/L		102	53 - 122	13	30
2,4-Dimethylphenol	100	90.5		ug/L		90	42 - 120	5	35
2,4-Dinitrophenol	100	115		ug/L		115	1 - 173	13	79
2,4-Dinitrotoluene	100	104		ug/L		104	48 - 127	11	25
2,6-Dichlorophenol	100	102		ug/L		102	64 - 120	10	20
2,6-Dinitrotoluene	100	106		ug/L		106	68 - 137	11	29
2-Chloronaphthalene	100	102		ug/L		102	65 - 120	12	15
2-Chlorophenol	100	103		ug/L		103	36 - 120	14	37
2-Methylnaphthalene	100	97.6		ug/L		98	60 - 120	11	20
2-Methylphenol	100	87.8		ug/L		88	55 - 120	17	20
2-Nitroaniline	100	114		ug/L		114	53 - 120	10	20
2-Nitrophenol	100	100		ug/L		100	45 - 167	11	33
3,3'-Dichlorobenzidine	100	83.2		ug/L		83	8 - 213	3	65

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-600577/3-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 600577

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3/4-Methylphenol	200	149		ug/L		74	41 - 120	15	20
3-Nitroaniline	100	101		ug/L		101	62 - 120	7	20
4,6-Dinitro-2-methylphenol	100	101		ug/L		101	53 - 130	13	122
4-Bromophenyl phenyl ether	100	104		ug/L		104	65 - 120	13	26
4-Chloro-3-methylphenol	100	108		ug/L		108	41 - 128	15	44
4-Chloroaniline	100	88.4		ug/L		88	53 - 120	6	20
4-Chlorophenyl phenyl ether	100	111		ug/L		111	38 - 145	8	36
4-Nitroaniline	100	107		ug/L		107	61 - 120	8	20
4-Nitrophenol	100	35.1		ug/L		35	13 - 129	8	79
Acenaphthene	100	106		ug/L		106	60 - 132	11	29
Acenaphthylene	100	104		ug/L		104	54 - 126	11	45
Acetophenone	100	103		ug/L		103	45 - 120	12	20
Alpha-Terpineol	100	94.8		ug/L		95	60 - 140	11	30
Aniline	100	70.7		ug/L		71	50 - 120	15	20
Anthracene	100	95.7		ug/L		96	43 - 120	10	40
Azobenzene	100	96.4		ug/L		96	57 - 120	10	20
Benzidine	100	ND	*- *1	ug/L		3	20 - 143	149	30
Benzo[a]anthracene	100	102		ug/L		102	42 - 133	9	32
Benzo[a]pyrene	100	103		ug/L		103	32 - 148	9	43
Benzo[b]fluoranthene	100	103		ug/L		103	42 - 140	10	43
Benzo[g,h,i]perylene	100	101		ug/L		101	1 - 195	9	61
Benzo[k]fluoranthene	100	103		ug/L		103	25 - 146	6	38
Benzoic acid	100	38.6	J	ug/L		39	20 - 120	12	20
Benzyl alcohol	100	100		ug/L		100	47 - 120	14	20
Bis (2-chloroethoxy) methane	100	106		ug/L		106	49 - 165	10	32
bis (2-chloroisopropyl) ether	100	95.4		ug/L		95	63 - 139	11	46
Bis(2-chloroethyl)ether	100	108		ug/L		108	43 - 126	10	65
Bis(2-ethylhexyl) phthalate	100	102		ug/L		102	29 - 137	9	50
Butyl benzyl phthalate	100	96.1		ug/L		96	1 - 140	10	36
Chrysene	100	103		ug/L		103	44 - 140	12	53
Dibenz(a,h)anthracene	100	94.2		ug/L		94	1 - 200	4	75
Dibenzofuran	100	110		ug/L		110	61 - 120	10	20
Diethyl phthalate	100	115		ug/L		115	1 - 120	10	60
Dimethyl phthalate	100	105		ug/L		105	1 - 120	11	110
Di-n-butyl phthalate	100	103		ug/L		103	8 - 120	9	28
Di-n-octyl phthalate	100	98.3		ug/L		98	19 - 132	8	42
Fluoranthene	100	102		ug/L		102	43 - 121	10	40
Fluorene	100	111		ug/L		111	70 - 120	11	23
Hexachloro-1,3-butadiene	100	102		ug/L		102	38 - 120	12	38
Hexachlorobenzene	100	93.2		ug/L		93	8 - 142	11	33
Hexachlorocyclopentadiene	100	102		ug/L		102	46 - 135	15	20
Hexachloroethane	100	95.4		ug/L		95	55 - 120	14	32
Indeno[1,2,3-cd]pyrene	100	96.2		ug/L		96	1 - 151	6	60
Isophorone	100	105		ug/L		105	47 - 180	9	56
Naphthalene	100	98.9		ug/L		99	36 - 120	13	39
Nitrobenzene	100	107		ug/L		107	54 - 158	10	37
N-Nitrosodimethylamine	100	61.5		ug/L		61	38 - 120	13	20
N-Nitrosodi-n-propylamine	100	109		ug/L		109	14 - 198	10	52
N-Nitrosodiphenylamine	100	119		ug/L		119	79 - 127	11	20

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-600577/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 602673 — **Prep Batch: 600577**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Pentachlorophenol			100	103		ug/L		103	38 - 152	13	52
Phenanthrene			100	97.9		ug/L		98	65 - 120	11	24
Phenol			100	38.9		ug/L		39	17 - 120	15	39
Pyrene			100	103		ug/L		103	70 - 120	8	30
Pyridine			100	23.0	*- *1	ug/L		23	27 - 120	86	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*104*		*33 - 139*
2-Fluorobiphenyl (Surr)	*91*		*33 - 126*
2-Fluorophenol (Surr)	*58*		*12 - 120*
Nitrobenzene-d5 (Surr)	*97*		*36 - 120*
Phenol-d6 (Surr)	*37*		*10 - 120*
p-Terphenyl-d14 (Surr)	*99*		*47 - 131*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 410-675323/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676946 — **Prep Batch: 675323**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		07/23/25 15:14	07/28/25 12:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*75*		*30 - 187*	*07/23/25 15:14*	*07/28/25 12:39*	*1*
Benzo(a)pyrene-d12 (Surr)	*73*		*32 - 194*	*07/23/25 15:14*	*07/28/25 12:39*	*1*
1-Methylnaphthalene-d10	*72*		*45 - 130*	*07/23/25 15:14*	*07/28/25 12:39*	*1*

Lab Sample ID: LCS 410-675323/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676946 — **Prep Batch: 675323**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			1.00	0.519		ug/L		52	18 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*79*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*79*		*32 - 194*
1-Methylnaphthalene-d10	*67*		*45 - 130*

Lab Sample ID: LCSD 410-675323/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676946 — **Prep Batch: 675323**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			1.00	0.457		ug/L		46	18 - 130	13	30

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCSD 410-675323/3-A
Matrix: Water
Analysis Batch: 676946

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 675323

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*68*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*67*		*32 - 194*
1-Methylnaphthalene-d10	*58*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-603559/10
Matrix: Water
Analysis Batch: 603559

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50		ug/L			07/28/25 21:07	1
Gasoline Range Organics (C4-C12)	ND		50		ug/L			07/28/25 21:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*20 - 144*		*07/28/25 21:07*	*1*

Lab Sample ID: LCS 570-603559/1008
Matrix: Water
Analysis Batch: 603559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			2000	1830		ug/L		92	71 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*20 - 144*

Lab Sample ID: LCSD 570-603559/9
Matrix: Water
Analysis Batch: 603559

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2000	1740		ug/L		87	71 - 120	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*20 - 144*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-599806/1-A
Matrix: Water
Analysis Batch: 601222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599806

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0067		ug/L		07/21/25 05:53	07/23/25 15:31	1
4,4'-DDE	ND		0.0033		ug/L		07/21/25 05:53	07/23/25 15:31	1
4,4'-DDT	ND		0.0033		ug/L		07/21/25 05:53	07/23/25 15:31	1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 570-599806/1-A
Matrix: Water
Analysis Batch: 601222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599806

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
alpha-BHC	ND		0.0013	ug/L		07/21/25 05:53	07/23/25 15:31	1
alpha-Chlordane	ND		0.033	ug/L		07/21/25 05:53	07/23/25 15:31	1
beta-BHC	ND		0.0050	ug/L		07/21/25 05:53	07/23/25 15:31	1
Chlordane	ND		0.033	ug/L		07/21/25 05:53	07/23/25 15:31	1
delta-BHC	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
Dieldrin	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endosulfan I	ND		0.0013	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endosulfan II	ND		0.0067	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endosulfan sulfate	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endrin	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endrin aldehyde	ND		0.033	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endrin ketone	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
gamma-BHC (Lindane)	ND		0.0013	ug/L		07/21/25 05:53	07/23/25 15:31	1
gamma-Chlordane	ND		0.010	ug/L		07/21/25 05:53	07/23/25 15:31	1
Heptachlor	ND		0.0013	ug/L		07/21/25 05:53	07/23/25 15:31	1
Heptachlor epoxide	ND		0.0067	ug/L		07/21/25 05:53	07/23/25 15:31	1
Methoxychlor	ND		0.0067	ug/L		07/21/25 05:53	07/23/25 15:31	1
Toxaphene	ND		0.067	ug/L		07/21/25 05:53	07/23/25 15:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*87*		*20 - 154*	*07/21/25 05:53*	*07/23/25 15:31*	*1*
Tetrachloro-m-xylene (Surr)	*64*		*20 - 139*	*07/21/25 05:53*	*07/23/25 15:31*	*1*

Lab Sample ID: LCS 570-599806/2-A
Matrix: Water
Analysis Batch: 603099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599806

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0333	0.0212		ug/L		64	31 - 141
4,4'-DDE	0.0333	0.0204		ug/L		61	30 - 145
4,4'-DDT	0.0333	0.0234		ug/L		70	25 - 160
Aldrin	0.0333	0.0195		ug/L		59	42 - 140
alpha-BHC	0.0333	0.0206		ug/L		62	37 - 140
alpha-Chlordane	0.0333	0.0201	J	ug/L		60	45 - 140
beta-BHC	0.0333	0.0196		ug/L		59	17 - 147
delta-BHC	0.0333	0.0176		ug/L		53	19 - 140
Dieldrin	0.0333	0.0209		ug/L		63	36 - 146
Endosulfan I	0.0333	0.0200		ug/L		60	45 - 153
Endosulfan II	0.0333	0.0202		ug/L		61	1 - 202
Endosulfan sulfate	0.0333	0.0212		ug/L		64	26 - 144
Endrin	0.0333	0.0212		ug/L		64	30 - 147
Endrin aldehyde	0.0333	ND		ug/L		61	50 - 135
Endrin ketone	0.0333	0.0236		ug/L		71	60 - 140
gamma-BHC (Lindane)	0.0333	0.0211		ug/L		63	32 - 140
gamma-Chlordane	0.0333	0.0195		ug/L		59	45 - 140
Heptachlor	0.0333	0.0201		ug/L		60	34 - 140
Heptachlor epoxide	0.0333	0.0194		ug/L		58	37 - 142

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCS 570-599806/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603099 — **Prep Batch: 599806**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Methoxychlor			0.0333	0.0211		ug/L		63	50 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*82*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*73*		*20 - 139*

Lab Sample ID: LCSD 570-599806/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603099 — **Prep Batch: 599806**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.0333	0.0238		ug/L		72	31 - 141	12	39
4,4'-DDE			0.0333	0.0230		ug/L		69	30 - 145	12	35
4,4'-DDT			0.0333	0.0260		ug/L		78	25 - 160	10	42
Aldrin			0.0333	0.0217		ug/L		65	42 - 140	11	35
alpha-BHC			0.0333	0.0235		ug/L		70	37 - 140	13	36
alpha-Chlordane			0.0333	0.0229	J	ug/L		69	45 - 140	13	35
beta-BHC			0.0333	0.0220		ug/L		66	17 - 147	12	44
delta-BHC			0.0333	0.0198		ug/L		59	19 - 140	12	52
Dieldrin			0.0333	0.0232		ug/L		70	36 - 146	10	49
Endosulfan I			0.0333	0.0225		ug/L		67	45 - 153	12	28
Endosulfan II			0.0333	0.0225		ug/L		68	1 - 202	11	53
Endosulfan sulfate			0.0333	0.0238		ug/L		71	26 - 144	11	38
Endrin			0.0333	0.0236		ug/L		71	30 - 147	11	48
Endrin aldehyde			0.0333	ND		ug/L		70	50 - 135	13	25
Endrin ketone			0.0333	0.0259		ug/L		78	60 - 140	10	30
gamma-BHC (Lindane)			0.0333	0.0239		ug/L		72	32 - 140	12	39
gamma-Chlordane			0.0333	0.0222		ug/L		67	45 - 140	13	35
Heptachlor			0.0333	0.0226		ug/L		68	34 - 140	11	43
Heptachlor epoxide			0.0333	0.0217		ug/L		65	37 - 142	11	26
Methoxychlor			0.0333	0.0233		ug/L		70	50 - 135	10	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*93*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*82*		*20 - 139*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-599806/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600548 — **Prep Batch: 599806**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1221	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1232	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1242	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1248	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: MB 570-599806/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600548 — **Prep Batch: 599806**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1254	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1260	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*103*		*20 - 154*	*07/21/25 05:53*	*07/22/25 19:50*	*1*
Tetrachloro-m-xylene (Surr)	*58*		*20 - 139*	*07/21/25 05:53*	*07/22/25 19:50*	*1*

Lab Sample ID: LCS 570-599806/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600548 — **Prep Batch: 599806**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			0.133	0.104		ug/L		78	50 - 140		
Aroclor-1260			0.133	0.136		ug/L		102	8 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*82*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*63*		*20 - 139*

Lab Sample ID: LCSD 570-599806/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600548 — **Prep Batch: 599806**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor-1016			0.133	0.0990		ug/L		74	50 - 140	5	36
Aroclor-1260			0.133	0.182		ug/L		136	8 - 140	29	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*65*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*49*		*20 - 139*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-676092/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677202 — **Prep Batch: 676092**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L		07/24/25 23:10	07/28/25 23:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*109*		*46 - 136*	*07/24/25 23:10*	*07/28/25 23:21*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*109*		*46 - 136*	*07/24/25 23:10*	*07/28/25 23:21*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-676092/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677202 — **Prep Batch: 676092**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene Dibromide			0.129	0.140		ug/L		109	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*109*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*109*		*46 - 136*

Lab Sample ID: LCSD 410-676092/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677202 — **Prep Batch: 676092**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide			0.129	0.143		ug/L		110	60 - 140	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*112*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*109*		*46 - 136*

Lab Sample ID: 380-161572-1 MS — **Client Sample ID: Well 15 120hr**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677202 — **Prep Batch: 676092**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene Dibromide	ND		0.122	0.141		ug/L		116	60 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*132*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*107*		*46 - 136*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-601068/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616060 — **Prep Batch: 601068**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250		ug/L		07/23/25 09:22	08/24/25 21:33	1
Diesel Range Organics [C10-C28]	ND		50		ug/L		07/23/25 09:22	08/24/25 21:33	1
C24-C44	ND		250		ug/L		07/23/25 09:22	08/24/25 21:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*72*		*53 - 151*	*07/23/25 09:22*	*08/24/25 21:33*	*1*

Lab Sample ID: LCS 570-601068/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616060 — **Prep Batch: 601068**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Crude Oil (C7-C44)			4000	5300	*+	ug/L		132	43 - 131		

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane (Surr)	93		53 - 151

Lab Sample ID: LCSD 570-601068/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616060 — **Prep Batch: 601068**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Crude Oil (C7-C44)			4000	4750		ug/L		119	43 - 131	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	92		53 - 151

Method: 8015C - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 410-678317/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678449 — **Prep Batch: 678317**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13		mg/L		07/30/25 12:32	07/30/25 17:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Butanediol	87		10 - 130	07/30/25 12:32	07/30/25 17:18	1

Lab Sample ID: LCS 410-678317/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678449 — **Prep Batch: 678317**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene glycol			99.8	103		mg/L		103	75 - 124		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Butanediol	107		10 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-600347/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600347

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10		mg/L			07/22/25 06:22	1
Chloride	ND		1.0		mg/L			07/22/25 06:22	1
Fluoride	ND		0.10		mg/L			07/22/25 06:22	1
Sulfate	ND		1.0		mg/L			07/22/25 06:22	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 570-600347/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	5.16		mg/L		103	90 - 110
Chloride	50.0	49.6		mg/L		99	90 - 110
Fluoride	2.50	2.70		mg/L		108	90 - 110
Sulfate	50.0	48.4		mg/L		97	90 - 110

Lab Sample ID: LCSD 570-600347/7 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	5.17		mg/L		103	90 - 110	0	15
Chloride	50.0	50.0		mg/L		100	90 - 110	1	15
Fluoride	2.50	2.72		mg/L		109	90 - 110	1	15
Sulfate	50.0	48.7		mg/L		97	90 - 110	0	15

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-8408/35 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8408

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			07/25/25 15:12	1

Lab Sample ID: MB 350-8408/36 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8408

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			07/25/25 15:16	1

Lab Sample ID: MB 350-8408/37 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8408

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			07/25/25 15:20	1

Lab Sample ID: LCS 350-8408/41 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8408

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.38		ng/L		88	77 - 123

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: LCSD 350-8408/42 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8408

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			5.00	4.44		ng/L		89	77 - 123	1	24

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-8462/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		07/29/25 14:14	07/30/25 16:26	1
Barium	ND		0.50		ug/L		07/29/25 14:14	07/30/25 16:26	1
Cadmium	ND		0.020		ug/L		07/29/25 14:14	07/30/25 16:26	1
Chromium	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:26	1
Copper	ND		0.50		ug/L		07/29/25 14:14	07/30/25 16:26	1
Lead	ND		0.050		ug/L		07/29/25 14:14	07/30/25 16:26	1
Selenium	ND		0.70		ug/L		07/29/25 14:14	07/30/25 16:26	1
Silver	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:26	1
Vanadium	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:26	1
Zinc	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:26	1

Lab Sample ID: MB 350-8462/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		07/29/25 14:14	07/30/25 16:40	1
Barium	ND		0.50		ug/L		07/29/25 14:14	07/30/25 16:40	1
Cadmium	ND		0.020		ug/L		07/29/25 14:14	07/30/25 16:40	1
Chromium	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:40	1
Copper	ND		0.50		ug/L		07/29/25 14:14	07/30/25 16:40	1
Lead	ND		0.050		ug/L		07/29/25 14:14	07/30/25 16:40	1
Selenium	ND		0.70		ug/L		07/29/25 14:14	07/30/25 16:40	1
Silver	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:40	1
Vanadium	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:40	1
Zinc	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:40	1

Lab Sample ID: LCS 350-8462/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			12.5	12.3		ug/L		98	70 - 130		
Barium			12.5	11.9		ug/L		95	70 - 130		
Cadmium			1.25	1.17		ug/L		94	70 - 130		
Chromium			12.5	12.4		ug/L		99	70 - 130		
Copper			12.5	12.8		ug/L		102	70 - 130		
Lead			2.50	2.30		ug/L		92	70 - 130		
Selenium			12.5	11.0		ug/L		88	70 - 130		
Silver			6.25	6.04		ug/L		97	70 - 130		

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-8462/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vanadium	12.5	11.7		ug/L		94	70 - 130
Zinc	12.5	11.9		ug/L		95	70 - 130

Lab Sample ID: LCSD 350-8462/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	12.1		ug/L		96	70 - 130	2	20
Barium	12.5	11.5		ug/L		92	70 - 130	3	20
Cadmium	1.25	1.20		ug/L		96	70 - 130	2	20
Chromium	12.5	12.5		ug/L		100	70 - 130	1	20
Copper	12.5	11.7		ug/L		94	70 - 130	9	20
Lead	2.50	2.33		ug/L		93	70 - 130	1	20
Selenium	12.5	11.5		ug/L		92	70 - 130	4	20
Silver	6.25	5.88		ug/L		94	70 - 130	3	20
Vanadium	12.5	12.7		ug/L		102	70 - 130	8	20
Zinc	12.5	12.1		ug/L		97	70 - 130	2	20

Lab Sample ID: MB 350-8663/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		5.0	ug/L		08/06/25 00:00	08/06/25 23:04	1
Manganese	ND		0.050	ug/L		08/06/25 00:00	08/06/25 23:04	1

Lab Sample ID: MB 350-8663/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		5.0	ug/L		08/06/25 00:00	08/06/25 23:18	1
Manganese	ND		0.050	ug/L		08/06/25 00:00	08/06/25 23:18	1

Lab Sample ID: LCS 350-8663/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	125	118		ug/L		94	70 - 130
Manganese	12.5	12.1		ug/L		97	70 - 130

Lab Sample ID: LCSD 350-8663/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	125	121		ug/L		97	70 - 130	2	20
Manganese	12.5	12.2		ug/L		98	70 - 130	0	20

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-8770/1-A
Matrix: Water
Analysis Batch: 8836

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8770

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		6.0		ug/L		08/11/25 00:00	08/11/25 22:44	1

Lab Sample ID: LCS 350-8770/2-A
Matrix: Water
Analysis Batch: 8836

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8770

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			62.5	56.7		ug/L		91	70 - 130		

Lab Sample ID: LCSD 350-8770/3-A
Matrix: Water
Analysis Batch: 8836

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8770

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron			62.5	59.5		ug/L		95	70 - 130	5	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 350-8568/25-A
Matrix: Water
Analysis Batch: 8764

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 8568

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.50		mg/L		08/01/25 15:49	08/08/25 14:32	1
Iron	ND		0.50		mg/L		08/01/25 15:49	08/08/25 14:32	1
Lithium	ND		0.10		mg/L		08/01/25 15:49	08/08/25 14:32	1
Magnesium	ND		0.50		mg/L		08/01/25 15:49	08/08/25 14:32	1
Potassium	ND		3.3		mg/L		08/01/25 15:49	08/08/25 14:32	1
Sodium	ND		0.60		mg/L		08/01/25 15:49	08/08/25 14:32	1
SiO2, Silica	ND		2.3		mg/L		08/01/25 15:49	08/08/25 14:32	1

Lab Sample ID: LCS 350-8568/26-A
Matrix: Water
Analysis Batch: 8764

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 8568

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium			20.0	21.9		mg/L		109	80 - 120		
Iron			20.0	23.2		mg/L		116	80 - 120		
Lithium			1.00	1.03		mg/L		103	80 - 120		
Magnesium			20.0	23.2		mg/L		116	80 - 120		
Potassium			20.0	21.5		mg/L		107	80 - 120		
Sodium			20.0	22.0		mg/L		110	80 - 120		
SiO2, Silica			21.4	22.4		mg/L		105	80 - 120		

Lab Sample ID: MB 570-607221/1-A
Matrix: Water
Analysis Batch: 607956

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Strontium	ND		0.010		mg/L			08/06/25 14:54	1

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 570-607221/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Strontium	0.500	0.507		mg/L		101	80 - 120

Lab Sample ID: LCSD 570-607221/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Strontium	0.500	0.495		mg/L		99	80 - 120	3	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-607199/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0	ug/L			08/05/25 17:27	1

Lab Sample ID: LCS 570-607199/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	80.0	80.9		ug/L		101	80 - 120

Lab Sample ID: LCSD 570-607199/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium	80.0	84.2		ug/L		105	80 - 120	4	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-599629/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601874 — **Prep Batch: 599629**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0	mg/L		07/19/25 17:21	07/24/25 15:57	1

Lab Sample ID: LCS 570-599629/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601874 — **Prep Batch: 599629**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM: Oil and Grease	40.0	31.20		mg/L		78	78 - 114

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 570-599629/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601874 — **Prep Batch: 599629**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease	40.0	32.70		mg/L		82	78 - 114	5	18

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-605732/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	mg/L		08/01/25 12:27	08/04/25 15:19	1

Lab Sample ID: LCS 570-605732/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	5.00	5.24		mg/L		105	90 - 110

Lab Sample ID: LCSD 570-605732/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	5.00	5.28		mg/L		106	90 - 110	1	20

Method: 410.4 - COD

Lab Sample ID: MB 570-606240/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10	mg/L		08/03/25 08:40	08/03/25 08:19	1

Lab Sample ID: LCS 570-606240/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	50.0	49.9		mg/L		100	90 - 110

Lab Sample ID: LCSD 570-606240/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	50.0	49.9		mg/L		100	90 - 110	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 570-604824/10 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604824

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		5.0		mg/L			07/30/25 14:51	1
Bicarbonate (as CaCO3)	ND		5.0		mg/L			07/30/25 14:51	1
Carbonate (as CaCO3)	ND		5.0		mg/L			07/30/25 14:51	1
Hydroxide (as CaCO3)	ND		5.0		mg/L			07/30/25 14:51	1

Lab Sample ID: LCS 570-604824/8 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604824

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity, Total (As CaCO3)			106	98.4		mg/L		93	78 - 110		

Lab Sample ID: LCSD 570-604824/9 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604824

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)			106	96.6		mg/L		91	78 - 110	2	10

Method: SM 2520B - Salinity

Lab Sample ID: LCS 570-600127/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600127

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Salinity			35.0	35.5		psu		101	95 - 105		

Lab Sample ID: LCSD 570-600127/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600127

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Salinity			35.0	36.5		psu		104	95 - 105	3	20

Lab Sample ID: 380-161572-1 DU — **Client Sample ID: Well 15 120hr**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600127

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Salinity	34			33.8		psu				1	25

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-601216/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601216

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			07/23/25 12:38	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 570-601216/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601216

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	924		mg/L		92	85 - 110

Lab Sample ID: LCSD 570-601216/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601216

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	932		mg/L		93	85 - 110	1	10

Method: SM 5310C - TOC

Lab Sample ID: MB 570-611514/12 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611514

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic	ND		0.50	mg/L			08/13/25 13:17	1

Lab Sample ID: LCS 570-611514/13 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon, Non-Purgable Organic	5.03	5.00		mg/L		99	85 - 115

Lab Sample ID: LCSD 570-611514/14 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611514

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic	5.03	5.03		mg/L		100	85 - 115	1	15

Lab Sample ID: 380-161572-1 MS — **Client Sample ID: Well 15 120hr**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611514

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon, Non-Purgable Organic	ND	F1	5.03	ND	F1	mg/L		0	85 - 115

Lab Sample ID: 380-161572-1 MSD — **Client Sample ID: Well 15 120hr**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611514

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic	ND	F1	5.03	ND	F1	mg/L		0	85 - 115	NC	15

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-729202/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	0.1638	U	0.525	0.525	4.00	0.889	pCi/L	07/28/25 07:56	07/29/25 18:20	1

Lab Sample ID: LCSB 160-729202/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Beta	69.5	70.67		7.60	4.00	0.972	pCi/L	102	75 - 125

Lab Sample ID: LCSBD 160-729202/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	Spike Added	LCSBD Result	LCSBD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Gross Beta	69.5	67.86		7.33	4.00	1.01	pCi/L	98	75 - 125	4	25

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-728731/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 731153 — **Prep Batch: 728731**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02632	U	0.189	0.189	1.00	0.226	pCi/L	07/24/25 08:08	08/08/25 20:38	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*30 - 110*	*07/24/25 08:08*	*08/08/25 20:38*	*1*

Lab Sample ID: LCS 160-728731/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 731142 — **Prep Batch: 728731**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	9.305		1.24	1.00	0.189	pCi/L	97	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.9*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-728732/1-A
Matrix: Water
Analysis Batch: 731154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 728732

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4304	U	0.380	0.382	1.00	0.602	pCi/L	07/24/25 08:13	08/08/25 11:39	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*30 - 110*	*07/24/25 08:13*	*08/08/25 11:39*	*1*
Y Carrier	*78.1*		*30 - 110*	*07/24/25 08:13*	*08/08/25 11:39*	*1*

Lab Sample ID: LCS 160-728732/2-A
Matrix: Water
Analysis Batch: 731154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 728732

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.18	9.886		1.33	1.00	0.534	pCi/L	108	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.9*		*30 - 110*
Y Carrier	*80.7*		*30 - 110*

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-729588/1-A
Matrix: Water
Analysis Batch: 731434

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 729588

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.06002	U	0.161	0.161	3.00	0.168	pCi/L	07/29/25 14:25	08/11/25 15:15	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*84.9*		*30 - 110*	*07/29/25 14:25*	*08/11/25 15:15*	*1*
Y Carrier	*90.1*		*30 - 110*	*07/29/25 14:25*	*08/11/25 15:15*	*1*

Lab Sample ID: LCS 160-729588/2-A
Matrix: Water
Analysis Batch: 731434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 729588

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Strontium-90			6.94	6.802		0.771	3.00	0.234	pCi/L	98	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*79.9*		*30 - 110*
Y Carrier	*87.1*		*30 - 110*

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: LCSD 160-729588/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 731435 — **Prep Batch: 729588**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Strontium-90			6.94	6.274		0.685	3.00	0.148	pCi/L	90	75 - 125	8	25

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Sr Carrier	*84.0*		*30 - 110*
Y Carrier	*95.3*		*30 - 110*

Method: SM7110C - Gross Alpha by Co-Precipitation

Lab Sample ID: MB 160-728987/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729564 — **Prep Batch: 728987**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.3552	U	0.619	0.621	3.00	0.658	pCi/L	07/25/25 10:05	07/29/25 07:35	1

Lab Sample ID: LCS 160-728987/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729564 — **Prep Batch: 728987**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Alpha			39.6	35.56		4.95	3.00	0.484	pCi/L	90	80 - 120		

Method: U-02-RC - Uranium, Method U02

Lab Sample ID: MB 160-728887/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729736 — **Prep Batch: 728887**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Uranium-234	0.09625	U	0.103	0.103	1.00	0.104	pCi/L	07/24/25 13:19	07/30/25 22:03	1
Uranium-235	-0.01057	U	0.0149	0.0150	1.00	0.120	pCi/L	07/24/25 13:19	07/30/25 22:03	1
Uranium-238	0.01836	U	0.0460	0.0460	1.00	0.0916	pCi/L	07/24/25 13:19	07/30/25 22:03	1
Total Uranium	0.1146	U	0.114	0.114	1.00	0.120	pCi/L	07/24/25 13:19	07/30/25 22:03	1

Tracer	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Uranium-232	*79.5*		*30 - 110*	*07/24/25 13:19*	*07/30/25 22:03*	*1*

Lab Sample ID: LCS 160-728887/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729623 — **Prep Batch: 728887**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Uranium-234			12.7	13.06		1.55	1.00	0.104	pCi/L	103	75 - 125		
Uranium-238			12.9	14.02		1.63	1.00	0.0869	pCi/L	108	75 - 125		

Method: U-02-RC - Uranium, Method U02 (Continued)

Tracer	LCS %Yield	LCS Qualifier	Limits
Uranium-232	81.2		30 - 110

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

GC/MS VOA

Analysis Batch: 599498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	624.1	
MB 570-599498/5	Method Blank	Total/NA	Water	624.1	
LCS 570-599498/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-599498/3	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 600577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	625.1	
MB 570-600577/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-600577/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-600577/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 602673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	625.1	600577
MB 570-600577/1-A	Method Blank	Total/NA	Water	625.1	600577
LCS 570-600577/2-A	Lab Control Sample	Total/NA	Water	625.1	600577
LCSD 570-600577/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	600577

Prep Batch: 675323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	625.1	
MB 410-675323/1-A	Method Blank	Total/NA	Water	625.1	
LCS 410-675323/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 410-675323/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 676946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-675323/1-A	Method Blank	Total/NA	Water	625.1 SIM	675323
LCS 410-675323/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	675323
LCSD 410-675323/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	675323

Analysis Batch: 677268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	625.1 SIM	675323

GC VOA

Analysis Batch: 603559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	8015B	
MB 570-603559/10	Method Blank	Total/NA	Water	8015B	
LCS 570-603559/1008	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-603559/9	Lab Control Sample Dup	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 599806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	608	

GC Semi VOA (Continued)

Prep Batch: 599806 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-599806/1-A	Method Blank	Total/NA	Water	608	
LCS 570-599806/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 570-599806/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-599806/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 570-599806/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 600548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	608.3	599806
MB 570-599806/1-A	Method Blank	Total/NA	Water	608.3	599806
LCS 570-599806/4-A	Lab Control Sample	Total/NA	Water	608.3	599806
LCSD 570-599806/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	599806

Prep Batch: 601068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	3510C	
MB 570-601068/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-601068/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-601068/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 601222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-599806/1-A	Method Blank	Total/NA	Water	608.3	599806

Analysis Batch: 601461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	608.3	599806

Analysis Batch: 603099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-599806/2-A	Lab Control Sample	Total/NA	Water	608.3	599806
LCSD 570-599806/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	599806

Analysis Batch: 616060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	8015B	601068
MB 570-601068/1-A	Method Blank	Total/NA	Water	8015B	601068
LCS 570-601068/4-A	Lab Control Sample	Total/NA	Water	8015B	601068
LCSD 570-601068/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	601068

Prep Batch: 676092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	8011	
MB 410-676092/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-676092/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-676092/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
380-161572-1 MS	Well 15 120hr	Total/NA	Water	8011	

Analysis Batch: 677202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	8011	676092

GC Semi VOA (Continued)

Analysis Batch: 677202 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-676092/1-A	Method Blank	Total/NA	Water	8011	676092
LCS 410-676092/2-A	Lab Control Sample	Total/NA	Water	8011	676092
LCSD 410-676092/3-A	Lab Control Sample Dup	Total/NA	Water	8011	676092
380-161572-1 MS	Well 15 120hr	Total/NA	Water	8011	676092

Prep Batch: 678317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	8015 DAI Prep	
MB 410-678317/1-A	Method Blank	Total/NA	Water	8015 DAI Prep	
LCS 410-678317/2-A	Lab Control Sample	Total/NA	Water	8015 DAI Prep	

Analysis Batch: 678449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	8015C	678317
MB 410-678317/1-A	Method Blank	Total/NA	Water	8015C	678317
LCS 410-678317/2-A	Lab Control Sample	Total/NA	Water	8015C	678317

HPLC/IC

Analysis Batch: 600347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	300.0	
380-161572-1 - DL	Well 15 120hr	Total/NA	Water	300.0	
MB 570-600347/5	Method Blank	Total/NA	Water	300.0	
LCS 570-600347/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-600347/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Analysis Batch: 8408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	1631E	
MB 350-8408/35	Method Blank	Total/NA	Water	1631E	
MB 350-8408/36	Method Blank	Total/NA	Water	1631E	
MB 350-8408/37	Method Blank	Total/NA	Water	1631E	
LCS 350-8408/41	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-8408/42	Lab Control Sample Dup	Total/NA	Water	1631E	

Prep Batch: 8462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	1640	
MB 350-8462/1-A	Method Blank	Total/NA	Water	1640	
MB 350-8462/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-8462/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8462/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	1640	8462
MB 350-8462/1-A	Method Blank	Total/NA	Water	1640	8462
MB 350-8462/2-A	Method Blank	Total/NA	Water	1640	8462
LCS 350-8462/3-A	Lab Control Sample	Total/NA	Water	1640	8462

Metals (Continued)

Analysis Batch: 8530 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 350-8462/4-A	Lab Control Sample Dup	Total/NA	Water	1640	8462

Prep Batch: 8568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total Recoverable	Water	3005A	
MB 350-8568/25-A	Method Blank	Total Recoverable	Water	3005A	
LCS 350-8568/26-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 8663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	1640	
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	1640	8663
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	8663
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	8663
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	8663
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	8663

Analysis Batch: 8764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total Recoverable	Water	6010D	8568
380-161572-1	Well 15 120hr	Total Recoverable	Water	6010D	8568
380-161572-1	Well 15 120hr	Total Recoverable	Water	6010D	8568
MB 350-8568/25-A	Method Blank	Total Recoverable	Water	6010D	8568
LCS 350-8568/26-A	Lab Control Sample	Total Recoverable	Water	6010D	8568

Prep Batch: 8770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	1640	
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	1640	8770
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	8770
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	8770
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	8770

Filtration Batch: 607199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Dissolved	Water	Filtration	
MB 570-607199/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-607199/2-A	Lab Control Sample	Dissolved	Water	Filtration	

Metals (Continued)

Filtration Batch: 607199 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-607199/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Filtration Batch: 607221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Dissolved	Water	Filtration	
MB 570-607221/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Analysis Batch: 607416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Dissolved	Water	6020	607199
MB 570-607199/1-A	Method Blank	Dissolved	Water	6020	607199
LCS 570-607199/2-A	Lab Control Sample	Dissolved	Water	6020	607199
LCSD 570-607199/3-A	Lab Control Sample Dup	Dissolved	Water	6020	607199

Analysis Batch: 607956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-607221/1-A	Method Blank	Dissolved	Water	6010D	607221
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	6010D	607221
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	6010D	607221

Analysis Batch: 608021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Dissolved	Water	6010D	607221

General Chemistry

Prep Batch: 599629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	1664A	
MB 570-599629/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-599629/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-599629/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 600127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	SM 2520B	
LCS 570-600127/3	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 570-600127/4	Lab Control Sample Dup	Total/NA	Water	SM 2520B	
380-161572-1 DU	Well 15 120hr	Total/NA	Water	SM 2520B	

Analysis Batch: 601216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	SM 2540C	
MB 570-601216/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-601216/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-601216/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

General Chemistry

Analysis Batch: 601874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	1664A	599629
MB 570-599629/1-A	Method Blank	Total/NA	Water	1664A	599629
LCS 570-599629/2-A	Lab Control Sample	Total/NA	Water	1664A	599629
LCSD 570-599629/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	599629

Analysis Batch: 604824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	SM 2320B	
MB 570-604824/10	Method Blank	Total/NA	Water	SM 2320B	
LCS 570-604824/8	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 570-604824/9	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Prep Batch: 605732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	351.2	
MB 570-605732/3-A	Method Blank	Total/NA	Water	351.2	
LCS 570-605732/4-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-605732/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	

Prep Batch: 606240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	410.4	
MB 570-606240/3-A	Method Blank	Total/NA	Water	410.4	
LCS 570-606240/4-A	Lab Control Sample	Total/NA	Water	410.4	
LCSD 570-606240/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 606279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	410.4	606240
MB 570-606240/3-A	Method Blank	Total/NA	Water	410.4	606240
LCS 570-606240/4-A	Lab Control Sample	Total/NA	Water	410.4	606240
LCSD 570-606240/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	606240

Analysis Batch: 606746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	351.2	605732
MB 570-605732/3-A	Method Blank	Total/NA	Water	351.2	605732
LCS 570-605732/4-A	Lab Control Sample	Total/NA	Water	351.2	605732
LCSD 570-605732/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	605732

Analysis Batch: 611514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	SM 5310C	
MB 570-611514/12	Method Blank	Total/NA	Water	SM 5310C	
LCS 570-611514/13	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 570-611514/14	Lab Control Sample Dup	Total/NA	Water	SM 5310C	
380-161572-1 MS	Well 15 120hr	Total/NA	Water	SM 5310C	
380-161572-1 MSD	Well 15 120hr	Total/NA	Water	SM 5310C	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Rad

Prep Batch: 728731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	PrecSep-21	
MB 160-728731/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-728731/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 728732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	PrecSep_0	
MB 160-728732/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-728732/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 728887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	ExtChrom	
MB 160-728887/1-A	Method Blank	Total/NA	Water	ExtChrom	
LCS 160-728887/2-A	Lab Control Sample	Total/NA	Water	ExtChrom	

Prep Batch: 728987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	Coprecipitation	
MB 160-728987/1-A	Method Blank	Total/NA	Water	Coprecipitation	
LCS 160-728987/2-A	Lab Control Sample	Total/NA	Water	Coprecipitation	

Prep Batch: 729202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	Evaporation	
MB 160-729202/1-A	Method Blank	Total/NA	Water	Evaporation	
LCSB 160-729202/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSBD 160-729202/3-A	Lab Control Sample Dup	Total/NA	Water	Evaporation	

Prep Batch: 729588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161572-1	Well 15 120hr	Total/NA	Water	PrecSep-7	
MB 160-729588/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-729588/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	
LCSD 160-729588/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-7	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120hr

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161572-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	599498	VYF4	EET CAL 4	07/19/25 18:32
Total/NA	Prep	625.1			600577	H1SH	EET CAL 4	07/23/25 09:25
Total/NA	Analysis	625.1		1	602673	J7WE	EET CAL 4	07/26/25 02:55
Total/NA	Prep	625.1			675323	L2FU	ELLE	07/23/25 15:14
Total/NA	Analysis	625.1 SIM		1	677268	SJ89	ELLE	07/28/25 22:59
Total/NA	Analysis	8015B		1	603559	A9VE	EET CAL 4	07/29/25 06:48
Total/NA	Prep	608			599806	H1SH	EET CAL 4	07/21/25 05:53
Total/NA	Analysis	608.3		1	601461	N5Y3	EET CAL 4	07/24/25 17:08
Total/NA	Prep	608			599806	H1SH	EET CAL 4	07/21/25 05:53
Total/NA	Analysis	608.3		1	600548	SP9M	EET CAL 4	07/22/25 18:37
Total/NA	Prep	8011			676092	USL7	ELLE	07/24/25 23:10
Total/NA	Analysis	8011		1	677202	M6UH	ELLE	07/29/25 00:46
Total/NA	Prep	3510C			601068	TVD6	EET CAL 4	07/23/25 09:22
Total/NA	Analysis	8015B		1	616060	H6FE	EET CAL 4	08/24/25 23:00
Total/NA	Prep	8015 DAI Prep			678317	WZ6J	ELLE	07/30/25 12:32
Total/NA	Analysis	8015C		1	678449	LXF2	ELLE	07/30/25 21:19
Total/NA	Analysis	300.0		40	600347	UIP1	EET CAL 4	07/22/25 07:55
Total/NA	Analysis	300.0	DL	500	600347	UIP1	EET CAL 4	07/22/25 08:56
Total/NA	Analysis	1631E		1	8408	AJD	EET SSM	07/25/25 17:34
Total/NA	Prep	1640			8462	V1R	EET SSM	07/30/25 10:51
Total/NA	Analysis	1640		1	8530	V1R	EET SSM	07/30/25 23:44
Total/NA	Prep	1640			8663	V1R	EET SSM	08/06/25 00:00
Total/NA	Analysis	1640		1	8697	CL	EET SSM	08/07/25 02:07
Total/NA	Prep	1640			8770	V1R	EET SSM	08/11/25 00:00
Total/NA	Analysis	1640		1	8836	V1R	EET SSM	08/12/25 00:09
Dissolved	Filtration	Filtration			607221	F4JD	EET CAL 4	08/05/25 12:19
Dissolved	Analysis	6010D		5	608021	P1R	EET CAL 4	08/06/25 15:31
Total Recoverable	Prep	3005A			8568	MCMS	EET SSM	08/01/25 15:49
Total Recoverable	Analysis	6010D		1	8764	JLS	EET SSM	08/08/25 15:21
Total Recoverable	Prep	3005A			8568	MCMS	EET SSM	08/01/25 15:49
Total Recoverable	Analysis	6010D		100	8764	JLS	EET SSM	08/08/25 18:50
Total Recoverable	Prep	3005A			8568	MCMS	EET SSM	08/01/25 15:49
Total Recoverable	Analysis	6010D		4	8764	JLS	EET SSM	08/08/25 21:34
Dissolved	Filtration	Filtration			607199	F4JD	EET CAL 4	08/05/25 12:04
Dissolved	Analysis	6020		20	607416	P1R	EET CAL 4	08/05/25 17:17
Total/NA	Prep	1664A			599629	S7HP	EET CAL 4	07/20/25 11:39
Total/NA	Analysis	1664A		1	601874	LM3A	EET CAL 4	07/24/25 15:57
Total/NA	Prep	351.2			605732	GG0B	EET CAL 4	08/01/25 12:27
Total/NA	Analysis	351.2		1	606746	GG0B	EET CAL 4	08/04/25 15:20
Total/NA	Analysis	410.4		1	606279	TP6R	EET CAL 4	08/03/25 08:20
Total/NA	Prep	410.4			606240	TP6R	EET CAL 4	08/03/25 08:40
Total/NA	Analysis	SM 2320B		1	604824	LNW3	EET CAL 4	07/30/25 16:37
Total/NA	Analysis	SM 2520B		1	600127	GG0B	EET CAL 4	07/21/25 15:13

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Client Sample ID: Well 15 120hr

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161572-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	601216	S7PH	EET CAL 4	07/23/25 12:38
Total/NA	Analysis	SM 5310C		1	611514	U8XP	EET CAL 4	08/13/25 17:47
Total/NA	Prep	Evaporation			729202	OGC	EET SL	07/28/25 07:56
Total/NA	Analysis	900.0		1	729583	FLC	EET SL	07/29/25 18:18
Total/NA	Prep	PrecSep-21			728731	JTR	EET SL	07/24/25 08:08
Total/NA	Analysis	903.0		1	731142	SWS	EET SL	08/08/25 20:35
Total/NA	Prep	PrecSep_0			728732	JTR	EET SL	07/24/25 08:13
Total/NA	Analysis	904.0		1	731154	SWS	EET SL	08/08/25 11:40
Total/NA	Prep	PrecSep-7			729588	TYB	EET SL	07/29/25 14:25
Total/NA	Analysis	905		1	731435	SWS	EET SL	08/11/25 15:14
Total/NA	Analysis	Ra226_Ra228 Pos		1	731473	FLC	EET SL	08/11/25 14:23
Total/NA	Prep	Coprecipitation			728987	OGC	EET SL	07/25/25 10:05
Total/NA	Analysis	SM7110C		1	729564	FLC	EET SL	07/29/25 07:35
Total/NA	Prep	ExtChrom			728887	CAR	EET SL	07/24/25 13:19
Total/NA	Analysis	U-02-RC		1	729833	CMM	EET SL	07/31/25 09:11

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-07-25
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	08-10-25
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA011	08-11-25
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	07-31-26
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-08-26
Florida	NELAP	E87575	06-30-26
Louisiana (All)	NELAP	03073	07-01-26
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-26
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167-008	07-08-26
US Fish & Wildlife	US Federal Programs	A20571	06-30-26
USDA	US Federal Programs	525-23-4-22573	01-24-28
Washington	State	C788-23a	07-13-26
Wisconsin	State	399133460	08-31-26

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25 *
Connecticut	State	PH-0241	08-14-25
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	08-11-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	08-14-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25 *
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	ELLE
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
608.3	Organochlorine Pesticides in Water	EPA	EET CAL 4
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CAL 4
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
8015C	Glycols- Direct Injection (GC/FID)	SW846	ELLE
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1640	Metals (ICPMS)	EPA	EET SSM
6010D	Metals (ICP)	SW846	EET CAL 4
6010D	Metals (ICP)	SW846	EET SSM
6020	Metals (ICP/MS)	SW846	EET CAL 4
1664A	HEM and SGT-HEM	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
410.4	COD	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EET CAL 4
SM 2520B	Salinity	SM	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
SM 5310C	TOC	SM	EET CAL 4
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
SM7110C	Gross Alpha by Co-Precipitation	SM	EET SL
U-02-RC	Uranium, Method U02	HASL	EET SL
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SSM
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
410.4	COD	EPA	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	ELLE
8011	Microextraction	SW846	ELLE
8015 DAI Prep	Preparation, Direct Aqueous Injection	SW846	ELLE
Coprecipitation	Preparation, Coprecipitation	None	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
ExtChrom	Preparation, Extraction Chromatography Resin Actinide Separation	None	EET SL
Filtration	Sample Filtration	None	EET CAL 4
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Method	Method Description	Protocol	Laboratory

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

HASL = Health And Safety Laboratory

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161572-1
SDG: Well 15 120 Hr

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-161572-1	Well 15 120hr	Water	07/17/25 09:00	07/18/25 09:21	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site	SSOW#:			

Analysis Requested

Preservation Codes
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K EDTA
L - EDA
Other:
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300, SM2520B, SM4500_SIO2 Br, Cl, F, SO4, Si, Salinity, Alkalinity	351.2- Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900 0 - Gross Beta Only	903 0 Ra226, 905_Sr90	904.0 - Radium-228	Ra226_228GFPC_P - Local Method	1640 - dissolved Metals (15) Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Sr, Ag, U, V, Zn	1631E - Dissolved Mercury, Total	6010D - Dissolved Metals (6) Ca, Fe, Li, Mg, K, Na	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	S	S	S	D	D	D	D	N	D	A	D		
WELL 15 120hr	7/17/2025	9:00	G	Saltwater	N		2	1	1	3	1	1	2	1	0	1	1	1	3	Samples Not Field Filtered Filter in lab as Necessary

380-161572 COC

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment: FEDEX Priority Overnight 3911 5489 0326

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	7/17/25 12:00	INTERA Inc		07/18/25 09:21	EEAP
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: 751A 1.9°-0.0°=1.9° REAL-FROZEN

Ver 01/16/2019

8/25/2025

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria Lopez@et.eurofinus com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site	SSOW#:			

Preservation Codes
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I Ice, J - DI Water, K - EDTA, L - EDA, Other:
M - Hexane, N - None, O - AsNaO2, P Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	625.1 SVOCs	8015B/8260D_Hawaii GRO C4-12	8015B_Hawaii DRO C8-24, CRO C24-44	1664A Oil and Grease	608 3 Organochlorine Pesticides	608 3 PCBs	625 1 Sim 1,4-dioxane	8011 Ethylene Dibromide	U02 Isotopic Uranium	8015C Ethylene Glycol	Total Number of containers	Special Instructions/Note: x = testing comes from another container
			Preservation Code:				N	A	N	A	N	S	N	N	N	A	N	N		
WELL 15 120 W	7/17/2025	9:00	G	Saltwater	N		1	3	2	2	2	1	1	1	2	2	1	2	3	Samples not field filtered. Filter in lab as necessary
																				* Please do U02 analysis.

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment: FEDEX Priority Overnight 3911 5489 0326

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7/17/25 12:00	INTERA Inc		07/18/25 09:21	EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: 757A 1.9°-0.0°=1.9° REAL-PROTEN

Ver 01/16/2019

Shipping Summary

eurofins | Environment Testing

S380-89100

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone (626) 386-1100

Bottle Order Information

Bottle Order *Kalealoa Desalination Project (11 sets)*
Bottle Order #: *26842*
Request From Client *6/6/2025*
Date Order Posted: *6/9/2025 9 59·19AM*
Order Status *Shipped*
Prepared By *Maria Lopez*
Deliver By Date: ***6/13/2025 11:59:00PM***

When To Ship:

Project/Event Information

Project Manager *Maria Lopez*
Em. Maria.Lopez@et.eurofinsus.com
Lab Project Number. *38009251*
Project Ref· *Kalealoa Desalination Project*
Event Desc

Page 68 of 83

Client Samples·

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	2	Plastic 250ml - unpreserved		None	300_ORGFM_28D - Anions Full List 2320B - Alkalinity - All Forms SM2520_B - Salinity	Water Water Water	Calscl
11	1	Amber Glass 1 liter - Sulfuric Acid		Sulfuric Acid	351.2 - Total Kjeldahl Nitrogen (TKN)	Water	"
11	1	Plastic 250ml - with Sulfuric Acid		Sulfuric Acid	410 4_LL - Low Level Chemical Oxygen Demand (COD)	Water	"
11	3	Voa Vial 40mL Amber - H2SO4		Sulfuric Acid	SM5310D - Total Organic Carbon (TOC)	Water	Calscl
11	1	Plastic 500ml - with Nitric Acid		Nitric Acid	SM7110C - Gross Alpha by Co-Precip	Water	Stil
11	1	Plastic 500ml - with Nitric Acid		Nitric Acid	900 0 - Gross Beta Only	Water	Stil

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

8/25/2025

Shipping Summary

Client Samples

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	2	Plastic 1 liter - Nitric Acid		Nitric Acid	903 0 - Radium-226 905_Sr90 - Strontium-90	Water Water	Stil
11	1	Plastic 1 liter - Nitric Acid		Nitric Acid	904.0 - Radium-228	Water	Stil
11	1	Plastic 250ml - unpreserved	Yes	None	1640 - Al, As,Ba,Cd,Cr,Cu,Fe,Pb,Mn,Se,Sr,Ag, U,V	Water	Special
11	1	Clear Glass 250ml - HCL	Yes	Hydrochloric Acid	1631E - Mercury, Total	Water	
11	1	Plastic 250ml - unpreserved	Yes	None	6010D - Ca,Fe, Li,Mg,K,Na	Water	Special
11	3	Voa Vial 40mL Amber - Hydrochloric Acid		Hydrochloric Acid	624 1 - (MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	Water	Calsci
11	3	Amber Glass 1 liter - unpreserved		None	625 1 - (MOD) Routine Semivolatiles List 608.3_Pest - Routine Pesticides List 608 3_PCB - Routine PCB Aroclor List	Water Water Water	Calsci
11	2	Voa Vial 40ml - Hydrochloric Acid		Hydrochloric Acid	8015B_GRO - Gasoline Range Organics	Water	"
11	1	Amber Glass 250ml - unpreserved		None	8015B_DRO - DRO (C10-C28)	Water	"
11	1	Amber Glass 1 liter - Sulfuric Acid		Sulfuric Acid	1664A - Oil & Grease	Water	Calsci
11	2	Amber Glass 250ml - unpreserved		None	625 1_SIM_PREC - (MOD) Local Method	Water	Ellt
11	2	Voa Vial 40ml - Hydrochloric Acid		Hydrochloric Acid	8011 - (MOD) Custom Analyte List	Water	"
11	2	~~Plastic 125mL - unpreserved~~		None	~~1633_Final - Standard List~~	Water	
11	2	Voa Vial 40ml - unpreserved		None	8015C_DAI_GLY - (MOD) Custom Analyte List	Water	Ellt
11	0	No Container		None	Nitrogen,Total - Total Nitrogen	Water	

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Shipping Summary

Client Samples

Sets	Bottles/Set	Bottle Type Description	Field Filtered	Preservative	Method	Matrix	Comments
11	✓ 1	Amber Glass 250ml - unpreserved		None	8015B_DRO - Crude Oil (C7-C44)	Water	Calscl

+ TDS Calscl
+ UOR Stil

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-233102.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-161572-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/14/2025			Preservation Codes: -
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM7110C/COPRECIPGross Alpha by Co-Precip	900.0/EvaporationGross Beta Only	903.0/PrecSep_21Radium-226	904.0/PrecSep_0Radium-228	Ra226_228GFPC_P	905_Sr90/PrecSep_7Strontium-90	U02/ExtChrom_ActinStandard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Well 15 120hr (380-161572-1)	7/17/25	09:00 Hawaiian	G	Water			X	X	X	X	X	X	X	6	High TDS sample, dilute accordingly, SDWA. High TDS sample, dilute

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:	
Relinquished by: Guillermo V	Date/Time: 7.21.25 8:18	Company	Received by:		Date/Time: 0815 JUL 23 2025	Company
Relinquished by:	Date/Time:	Company	Received by: Cheyenne Forrest		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-233100.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-161572-1
Address: 5755 8th Street East, ,	Due Date Requested: 8/14/2025			
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			

Analysis Requested

Therm. ID: SC0 3 Cust. Seal: (Y) N
Uncorr./Corr. Temp: 0.4/0.3 °C
Delivery: UPS / FedEx / Other: ____
Ice Type: Blue / Dry / Wet / None
Label Ver.: ____ Packing: B
↳ Dm

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total	6010D/3005A(MOD) Custom List 4: 6-7 Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 15 120hr (380-161572-1)	7/17/25	09:00 Hawaiian	G	Water			X	X	X	3	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Castillo	7/21/25 8:08			7/22/25 5:32	ETN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-233095.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-161572-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/14/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 15 120hr (380-161572-1)	7/17/25	09:00 Hawaiian	G	Water			X	X	X	6	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:	Method of Shipment:	
Relinquished by: Carlens Y	Date/Time: 7/21/25 8:58	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time: 7/23/25 0930	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 21.1-21.1			

Loc: 380
161572

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-232793.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-161572-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/14/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	608.3_PCB/608_Prep_PCBRoutine PCB Aroclor List	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	Nitrogen,TotalTotal Nitrogen	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	8015B_GRO/5030C(MOD) Gasoline Range Organics	8015B_DRO/3510C_LVIDRO (C10-C28)	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
Well 15 120hr (380-161572-1)	7/17/25	09:00 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	19	High TDS sample, dilute accordingly

380-161572 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 7/19/25 1000	Company: EAL	Received by: Erin Lem	Date/Time: 7/19/25 1000	Company: WP
Relinquished by: Erin Lem	Date/Time: 7/18/25 1108	Company: WP	Received by:	Date/Time: 7/19/25 1108	Company: BC
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.5/2.5 IR92

Ver: 10/10/2024
8/25/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-232793.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-161572-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/14/2025			
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes: -

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	2540C_Calcd Total Dissolved Solids (TDS)	6310CTOC, Standard analysis, 3 replicates	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 15 120hr (380-161572-1)	7/17/25	09:00 Hawaiian	G	Water			X	X	X	10	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 7/19/25 1000	Company EEA	Received by:	Date/Time: 7/19/25 1000	Company WP
Relinquished by:	Date/Time: 7/19/25 1108	Company WP	Received by:	Date/Time: 7/19/25 1108	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

8/25/2025

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Date:	7/22/2025
End Time:	1445
KI Paper Lot:	na
Analyst:	[illegible]
Pipette:	NO

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0 2N)	88441
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-161572-N-1	A	Y	5 2	ND

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Date:	7/22/2025
End Time:	19:43
pH Paper Lot:	~~he441704~~ HCU5721
Analyst:	JS
Pipette:	MP_TM826

JS 7/22/25

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	83146
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-161572-M-1	>2	<2	A	0.725	

JS 7/22/25

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161572-1
SDG Number: Well 15 120 Hr

Login Number: 161572
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161572-1
SDG Number: Well 15 120 Hr

Login Number: 161572
List Number: 2
Creator: Nguyen, Jenny

List Source: Eurofins Calscience
List Creation: 07/19/25 12:38 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161572-1
SDG Number: Well 15 120 Hr

Login Number: 161572
List Number: 6
Creator: Le, Sunny

List Source: Eurofins Calscience
List Creation: 08/05/25 10:16 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161572-1
SDG Number: Well 15 120 Hr

Login Number: 161572
List Number: 4
Creator: Ballard, Megan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 07/23/25 12:06 PM

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161572-1
SDG Number: Well 15 120 Hr

Login Number: 161572
List Number: 3
Creator: Miller, Darren R

List Source: Eurofins Seattle Specialty Metals
List Creation: 07/22/25 03:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161572-1
SDG Number: Well 15 120 Hr

Login Number: 161572
List Number: 5
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 07/23/25 11:33 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 8/25/2025 4:29:30 PM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 15 120 Hr Dup

JOB NUMBER

380-161569-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

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Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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8/25/2025 4:29:30 PM

Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 8
Client Sample Results 9
Surrogate Summary 17
Tracer Carrier Summary 20
QC Sample Results 21
QC Association Summary 51
Lab Chronicle 58
Certification Summary 60
Method Summary 63
Sample Summary 65
Chain of Custody 66
Field Data Sheets 73
Receipt Checklists 75

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-161569-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 7/18/2025 9:21 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C.

GC/MS VOA
Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-599498. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 625.1: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 570-600577 and analytical batch 570-602673 recovered outside control limits for the following analyte(s): Benzidine and Pyridine. Benzidine and Pyridine have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-600577 and analytical batch 570-602673 recovered outside control limits for the following analytes: Benzidine and Pyridine.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015B_DRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-601068. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method: 8015B_DRO

Method 8015B_DRO: The laboratory control sample (LCS) for preparation batch 570-601068 and analytical batch 570-616060 recovered outside control limits for the following analytes: C7-C44. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: Well 15 120 Hr Dup (380-161569-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: Well 15 120 Hr Dup (380-161569-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6010D - Total Recoverable: The following sample was diluted due to the abundance of non-target analytes: Well 15 120 Hr Dup (380-161569-1). Elevated reporting limits (RLs) are provided.

Method 6020 - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: Well 15 120 Hr Dup (380-161569-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6020 - Dissolved: The following sample was diluted due to the nature of the sample matrix: Well 15 120 Hr Dup (380-161569-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 5310C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 570-611514 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method SM4500_NO3_E: The following sample was analyzed outside of analytical holding time due to requested out of holding time: Well 15 120 Hr Dup (380-161569-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Alpha Spectroscopy
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 900.0: GAB prep batch 160-729202
Insufficient sample volume was available to preform a sample duplicate for the samples. A laboratory control sample duplicate (LCS/LCSD) was prepared instead to demonstrate batch precision.

Method 900.0: Gross Alpha Beta Batch 729202

The detection goal was not met for the following sample due to a reduction of the sample size attributed to high residual mass: Well 15 120 Hr Dup (380-161569-1). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium-228 batch 728732
The detection goal was not met for the following sample due to the reduced volume in prep attributed to the presence of matrix interferences: Well 15 120 Hr Dup (380-161569-1). Analytical results are reported with the detection limit achieved.

Method 905_Sr90: Strontium-90 Prep Batch 160-729588

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Due to matrix interference observed in the initial prep of the sample, the sample was prepared at a reduced aliquot, cooked dry, muffled in an oven, and digested to

Job ID: 380-161569-1 (Continued) Eurofins Eaton Analytical Pomona

reduce organic interference before the procedure for water samples was continued.

Method 905_Sr90: Strontium 90 Batch 729588

The detection goal was not met for the following sample due to a reduced sample volume used in prep attributed to the presence of matrix interferences. Well 15 120 Hr Dup (380-161569-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Client Sample ID: Well 15 120 Hr Dup — Lab Sample ID: 380-161569-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bromide	63		4.0		mg/L	40		300.0	Total/NA
Sulfate	2800		40		mg/L	40		300.0	Total/NA
Chloride - DL	20000		500		mg/L	500		300.0	Total/NA
Mercury	1.5		0.50		ng/L	1		1631E	Total/NA
Barium	27		0.50		ug/L	1		1640	Total/NA
Cadmium	0.040		0.020		ug/L	1		1640	Total/NA
Chromium	1.4		1.0		ug/L	1		1640	Total/NA
Iron	16		6.0		ug/L	1		1640	Total/NA
Manganese	0.32		0.050		ug/L	1		1640	Total/NA
Vanadium	1.9		1.0		ug/L	1		1640	Total/NA
Zinc	46		1.0		ug/L	1		1640	Total/NA
Calcium	430		2.0		mg/L	4		6010D	Total Recoverable
Magnesium	1300		50		mg/L	100		6010D	Total Recoverable
Potassium	430		13		mg/L	4		6010D	Total Recoverable
Sodium	10000		60		mg/L	100		6010D	Total Recoverable
SiO2, Silica	27		2.3		mg/L	1		6010D	Total Recoverable
Strontium	7.8		0.050		mg/L	5		6010D	Dissolved
Chemical Oxygen Demand	36		10		mg/L	1		410.4	Total/NA
Alkalinity, Total (As CaCO3)	96		5.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate (as CaCO3)	96		5.0		mg/L	1		SM 2320B	Total/NA
Salinity	35		2.0		psu	1		SM 2520B	Total/NA
Total Dissolved Solids	35000		1000		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Client Sample ID: Well 15 120 Hr Dup

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161569-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/19/25 18:11	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/19/25 18:11	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/19/25 18:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/19/25 18:11	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/19/25 18:11	1
1,1-Dichloroethane	ND		1.0		ug/L			07/19/25 18:11	1
1,1-Dichloroethene	ND		1.0		ug/L			07/19/25 18:11	1
1,1-Dichloropropene	ND		1.0		ug/L			07/19/25 18:11	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/19/25 18:11	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/19/25 18:11	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/19/25 18:11	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/19/25 18:11	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/19/25 18:11	1
1,2-Dibromoethane	ND		1.0		ug/L			07/19/25 18:11	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/19/25 18:11	1
1,2-Dichloroethane	ND		0.50		ug/L			07/19/25 18:11	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/19/25 18:11	1
1,2-Dichloropropane	ND		1.0		ug/L			07/19/25 18:11	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/19/25 18:11	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/19/25 18:11	1
1,3-Dichloropropane	ND		1.0		ug/L			07/19/25 18:11	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/19/25 18:11	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/19/25 18:11	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/19/25 18:11	1
2,2-Dichloropropane	ND		1.0		ug/L			07/19/25 18:11	1
2-Butanone	ND		10		ug/L			07/19/25 18:11	1
2-Chlorotoluene	ND		1.0		ug/L			07/19/25 18:11	1
2-Hexanone	ND		10		ug/L			07/19/25 18:11	1
4-Chlorotoluene	ND		1.0		ug/L			07/19/25 18:11	1
4-Methyl-2-pentanone	ND		10		ug/L			07/19/25 18:11	1
Acetone	ND		12		ug/L			07/19/25 18:11	1
Benzene	ND		0.50		ug/L			07/19/25 18:11	1
Bromobenzene	ND		1.0		ug/L			07/19/25 18:11	1
Bromochloromethane	ND		1.0		ug/L			07/19/25 18:11	1
Bromodichloromethane	ND		1.0		ug/L			07/19/25 18:11	1
Bromoform	ND		1.0		ug/L			07/19/25 18:11	1
Bromomethane	ND		5.0		ug/L			07/19/25 18:11	1
Carbon disulfide	ND		10		ug/L			07/19/25 18:11	1
Carbon tetrachloride	ND		0.50		ug/L			07/19/25 18:11	1
Chlorobenzene	ND		1.0		ug/L			07/19/25 18:11	1
Chloroethane	ND		1.0		ug/L			07/19/25 18:11	1
Chloroform	ND		1.0		ug/L			07/19/25 18:11	1
Chloromethane	ND		1.0		ug/L			07/19/25 18:11	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/19/25 18:11	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/19/25 18:11	1
Dibromochloromethane	ND		1.0		ug/L			07/19/25 18:11	1
Dibromomethane	ND		1.0		ug/L			07/19/25 18:11	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/19/25 18:11	1
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/19/25 18:11	1

Client Sample ID: Well 15 120 Hr Dup

Lab Sample ID: 380-161569-1

Date Collected: 07/17/25 09:00
Matrix: Water
Date Received: 07/18/25 09:21

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		100	ug/L			07/19/25 18:11	1
Ethylbenzene	ND		1.0	ug/L			07/19/25 18:11	1
Ethyl-t-butyl ether (ETBE)	ND		2.0	ug/L			07/19/25 18:11	1
Hexachloro-1,3-butadiene	ND		1.0	ug/L			07/19/25 18:11	1
Isopropanol	ND		50	ug/L			07/19/25 18:11	1
Isopropylbenzene	ND		1.0	ug/L			07/19/25 18:11	1
m,p-Xylene	ND		1.0	ug/L			07/19/25 18:11	1
Methylene Chloride	ND		2.0	ug/L			07/19/25 18:11	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			07/19/25 18:11	1
Naphthalene	ND		10	ug/L			07/19/25 18:11	1
n-Butylbenzene	ND		1.0	ug/L			07/19/25 18:11	1
N-Propylbenzene	ND		1.0	ug/L			07/19/25 18:11	1
o-Xylene	ND		1.0	ug/L			07/19/25 18:11	1
p-Isopropyltoluene	ND		1.0	ug/L			07/19/25 18:11	1
sec-Butylbenzene	ND		1.0	ug/L			07/19/25 18:11	1
Styrene	ND		1.0	ug/L			07/19/25 18:11	1
Tert-amyl-methyl ether (TAME)	ND		2.0	ug/L			07/19/25 18:11	1
tert-Butyl alcohol (TBA)	ND		10	ug/L			07/19/25 18:11	1
tert-Butylbenzene	ND		1.0	ug/L			07/19/25 18:11	1
Tetrachloroethene	ND		1.0	ug/L			07/19/25 18:11	1
Tetrahydrofuran	ND		10	ug/L			07/19/25 18:11	1
Toluene	ND		1.0	ug/L			07/19/25 18:11	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			07/19/25 18:11	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			07/19/25 18:11	1
Trichloroethene	ND		1.0	ug/L			07/19/25 18:11	1
Trichlorofluoromethane	ND		5.0	ug/L			07/19/25 18:11	1
Trihalomethanes, Total	ND		1.0	ug/L			07/19/25 18:11	1
Vinyl acetate	ND		10	ug/L			07/19/25 18:11	1
Vinyl chloride	ND		0.50	ug/L			07/19/25 18:11	1
Xylenes, Total	ND		1.0	ug/L			07/19/25 18:11	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*		*ug/L*			*628-63-7*		*07/19/25 18:11*	*1*
Ethyl Acetate TIC	*ND*		*ug/L*			*141-78-6*		*07/19/25 18:11*	*1*
Isopropyl Acetate TIC	*ND*		*ug/L*			*108-21-4*		*07/19/25 18:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*60 - 140*		*07/19/25 18:11*	*1*
4-Bromofluorobenzene (Surr)	*108*		*60 - 140*		*07/19/25 18:11*	*1*
Dibromofluoromethane	*100*		*60 - 140*		*07/19/25 18:11*	*1*
Toluene-d8 (Surr)	*103*		*60 - 140*		*07/19/25 18:11*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.32	ug/L		07/23/25 15:14	07/28/25 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*77*		*30 - 187*	*07/23/25 15:14*	*07/28/25 22:36*	*1*
Benzo(a)pyrene-d12 (Surr)	*73*		*32 - 194*	*07/23/25 15:14*	*07/28/25 22:36*	*1*
1-Methylnaphthalene-d10	*72*		*45 - 130*	*07/23/25 15:14*	*07/28/25 22:36*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Client Sample ID: Well 15 120 Hr Dup

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161569-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
1,2-Dichlorobenzene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
1,3-Dichlorobenzene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
1,4-Dichlorobenzene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
1-Methylnaphthalene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2,4,5-Trichlorophenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2,4,6-Trichlorophenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2,4-Dichlorophenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2,4-Dimethylphenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2,4-Dinitrophenol	ND		48		ug/L		07/23/25 09:25	07/26/25 02:31	1
2,4-Dinitrotoluene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2,6-Dichlorophenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2,6-Dinitrotoluene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2-Chloronaphthalene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2-Chlorophenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2-Methylnaphthalene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2-Methylphenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2-Nitroaniline	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
2-Nitrophenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
3,3'-Dichlorobenzidine	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
3/4-Methylphenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
3-Nitroaniline	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
4,6-Dinitro-2-methylphenol	ND		48		ug/L		07/23/25 09:25	07/26/25 02:31	1
4-Bromophenyl phenyl ether	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
4-Chloro-3-methylphenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
4-Chloroaniline	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
4-Chlorophenyl phenyl ether	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
4-Nitroaniline	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
4-Nitrophenol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Acenaphthene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Acenaphthylene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Acetophenone	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Alpha-Terpineol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Aniline	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Anthracene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Azobenzene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Benzidine	ND	*- *1	48		ug/L		07/23/25 09:25	07/26/25 02:31	1
Benzo[a]anthracene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Benzo[a]pyrene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Benzo[b]fluoranthene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Benzo[g,h,i]perylene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Benzo[k]fluoranthene	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Benzoic acid	ND		48		ug/L		07/23/25 09:25	07/26/25 02:31	1
Benzyl alcohol	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Bis (2-chloroethoxy) methane	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
bis (2-chloroisopropyl) ether	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1
Bis(2-chloroethyl)ether	ND		24		ug/L		07/23/25 09:25	07/26/25 02:31	1
Bis(2-ethylhexyl) phthalate	ND		9.5		ug/L		07/23/25 09:25	07/26/25 02:31	1

Client Sample ID: Well 15 120 Hr Dup

Lab Sample ID: 380-161569-1

Date Collected: 07/17/25 09:00
Matrix: Water
Date Received: 07/18/25 09:21

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Carbazole	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Chrysene	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Dibenz(a,h)anthracene	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Dibenzofuran	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Diethyl phthalate	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Dimethyl phthalate	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Di-n-butyl phthalate	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Di-n-octyl phthalate	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Fluoranthene	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Fluorene	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Hexachloro-1,3-butadiene	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Hexachlorobenzene	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Hexachlorocyclopentadiene	ND		24	ug/L		07/23/25 09:25	07/26/25 02:31	1
Hexachloroethane	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Indeno[1,2,3-cd]pyrene	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Isophorone	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Naphthalene	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
n-Decane	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Nitrobenzene	ND		24	ug/L		07/23/25 09:25	07/26/25 02:31	1
N-Nitrosodimethylamine	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
N-Nitrosodi-n-propylamine	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
N-Nitrosodiphenylamine	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
n-Octadecane	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Pentachlorophenol	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Phenanthrene	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Phenol	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Pyrene	ND		9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1
Pyridine	ND	*- *1	9.5	ug/L		07/23/25 09:25	07/26/25 02:31	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*07/23/25 09:25*	*07/26/25 02:31*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*07/23/25 09:25*	*07/26/25 02:31*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*07/23/25 09:25*	*07/26/25 02:31*	*1*
2,3,7,8-TCDD TIC	*ND*		*ug/L*			*1746-01-6*	*07/23/25 09:25*	*07/26/25 02:31*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*07/23/25 09:25*	*07/26/25 02:31*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*07/23/25 09:25*	*07/26/25 02:31*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*33 - 139*	*07/23/25 09:25*	*07/26/25 02:31*	*1*
2-Fluorobiphenyl (Surr)	*81*		*33 - 126*	*07/23/25 09:25*	*07/26/25 02:31*	*1*
2-Fluorophenol (Surr)	*61*		*12 - 120*	*07/23/25 09:25*	*07/26/25 02:31*	*1*
Nitrobenzene-d5 (Surr)	*94*		*36 - 120*	*07/23/25 09:25*	*07/26/25 02:31*	*1*
Phenol-d6 (Surr)	*51*		*10 - 120*	*07/23/25 09:25*	*07/26/25 02:31*	*1*
p-Terphenyl-d14 (Surr)	*84*		*47 - 131*	*07/23/25 09:25*	*07/26/25 02:31*	*1*

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50	ug/L			07/29/25 06:26	1
Gasoline Range Organics (C4-C12)	ND		50	ug/L			07/29/25 06:26	1

Client Sample ID: Well 15 120 Hr Dup

Lab Sample ID: 380-161569-1

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*74*		*20 - 144*		*07/29/25 06:26*	*1*

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0096	ug/L		07/21/25 05:53	07/24/25 16:38	1
4,4'-DDE	ND		0.0048	ug/L		07/21/25 05:53	07/24/25 16:38	1
4,4'-DDT	ND		0.0048	ug/L		07/21/25 05:53	07/24/25 16:38	1
Aldrin	ND		0.0048	ug/L		07/21/25 05:53	07/24/25 16:38	1
alpha-BHC	ND		0.0019	ug/L		07/21/25 05:53	07/24/25 16:38	1
alpha-Chlordane	ND		0.048	ug/L		07/21/25 05:53	07/24/25 16:38	1
beta-BHC	ND		0.0072	ug/L		07/21/25 05:53	07/24/25 16:38	1
Chlordane	ND		0.048	ug/L		07/21/25 05:53	07/24/25 16:38	1
delta-BHC	ND		0.0048	ug/L		07/21/25 05:53	07/24/25 16:38	1
Dieldrin	ND		0.0048	ug/L		07/21/25 05:53	07/24/25 16:38	1
Endosulfan I	ND		0.0019	ug/L		07/21/25 05:53	07/24/25 16:38	1
Endosulfan II	ND		0.0096	ug/L		07/21/25 05:53	07/24/25 16:38	1
Endosulfan sulfate	ND		0.0048	ug/L		07/21/25 05:53	07/24/25 16:38	1
Endrin	ND		0.0048	ug/L		07/21/25 05:53	07/24/25 16:38	1
Endrin aldehyde	ND		0.048	ug/L		07/21/25 05:53	07/24/25 16:38	1
Endrin ketone	ND		0.0048	ug/L		07/21/25 05:53	07/24/25 16:38	1
gamma-BHC (Lindane)	ND		0.0019	ug/L		07/21/25 05:53	07/24/25 16:38	1
gamma-Chlordane	ND		0.014	ug/L		07/21/25 05:53	07/24/25 16:38	1
Heptachlor	ND		0.0019	ug/L		07/21/25 05:53	07/24/25 16:38	1
Heptachlor epoxide	ND		0.0096	ug/L		07/21/25 05:53	07/24/25 16:38	1
Methoxychlor	ND		0.0096	ug/L		07/21/25 05:53	07/24/25 16:38	1
Toxaphene	ND		0.096	ug/L		07/21/25 05:53	07/24/25 16:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	*87*		*20 - 154*	*07/21/25 05:53*	*07/24/25 16:38*	*1*
Tetrachloro-m-xylene (Surr)	*61*		*20 - 139*	*07/21/25 05:53*	*07/24/25 16:38*	*1*

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.096	ug/L		07/21/25 05:53	07/22/25 18:18	1
Aroclor-1221	ND		0.096	ug/L		07/21/25 05:53	07/22/25 18:18	1
Aroclor-1232	ND		0.096	ug/L		07/21/25 05:53	07/22/25 18:18	1
Aroclor-1242	ND		0.096	ug/L		07/21/25 05:53	07/22/25 18:18	1
Aroclor-1248	ND		0.096	ug/L		07/21/25 05:53	07/22/25 18:18	1
Aroclor-1254	ND		0.096	ug/L		07/21/25 05:53	07/22/25 18:18	1
Aroclor-1260	ND		0.096	ug/L		07/21/25 05:53	07/22/25 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	*96*		*20 - 154*	*07/21/25 05:53*	*07/22/25 18:18*	*1*
Tetrachloro-m-xylene (Surr)	*50*		*20 - 139*	*07/21/25 05:53*	*07/22/25 18:18*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019	ug/L		07/24/25 23:10	07/29/25 00:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr)	*124*		*46 - 136*	*07/24/25 23:10*	*07/29/25 00:12*	*1*

Client Sample ID: Well 15 120 Hr Dup

Lab Sample ID: 380-161569-1

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21
Matrix: Water

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*106*		*46 - 136*	*07/24/25 23:10*	*07/29/25 00:12*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND	*+	250	ug/L		07/23/25 09:22	08/24/25 22:39	1
Diesel Range Organics [C10-C28]	ND		51	ug/L		07/23/25 09:22	08/24/25 22:39	1
C24-C44	ND		250	ug/L		07/23/25 09:22	08/24/25 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*87*		*53 - 151*	*07/23/25 09:22*	*08/24/25 22:39*	*1*
n-Octacosane (Surr)	*87*		*53 - 151*	*07/23/25 09:22*	*08/24/25 22:39*	*1*

Method: SW846 8015C - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13	mg/L		07/30/25 12:32	07/30/25 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*65*		*10 - 130*	*07/30/25 12:32*	*07/30/25 21:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**63**		4.0	mg/L			07/22/25 07:40	40
Fluoride	ND		4.0	mg/L			07/22/25 07:40	40
Sulfate	**2800**		40	mg/L			07/22/25 07:40	40

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20000**		500	mg/L			07/22/25 08:40	500

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.5**		0.50	ng/L			07/25/25 17:30	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		5.0	ug/L		08/06/25 00:00	08/07/25 02:21	1
Arsenic	ND		0.70	ug/L		07/29/25 14:15	07/30/25 23:30	1
Barium	**27**		0.50	ug/L		07/29/25 14:15	07/30/25 23:30	1
Cadmium	**0.040**		0.020	ug/L		07/29/25 14:15	07/30/25 23:30	1
Chromium	**1.4**		1.0	ug/L		07/29/25 14:15	07/30/25 23:30	1
Copper	ND		0.50	ug/L		07/29/25 14:15	07/30/25 23:30	1
Iron	**16**		6.0	ug/L		08/11/25 00:00	08/11/25 23:26	1
Lead	ND		0.050	ug/L		07/29/25 14:15	07/30/25 23:30	1
Manganese	**0.32**		0.050	ug/L		08/06/25 00:00	08/07/25 02:21	1
Selenium	ND		0.70	ug/L		07/29/25 14:15	07/30/25 23:30	1
Silver	ND		1.0	ug/L		07/29/25 14:15	07/30/25 23:30	1
Vanadium	**1.9**		1.0	ug/L		07/29/25 14:15	07/30/25 23:30	1
Zinc	**46**		1.0	ug/L		07/29/25 14:15	07/30/25 23:30	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Client Sample ID: Well 15 120 Hr Dup

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161569-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**430**		2.0		mg/L		08/01/25 15:49	08/08/25 21:30	4
Iron	ND		0.50		mg/L		08/01/25 15:49	08/08/25 15:17	1
Lithium	ND		0.40		mg/L		08/01/25 15:49	08/08/25 21:30	4
Magnesium	**1300**		50		mg/L		08/01/25 15:49	08/08/25 18:47	100
Potassium	**430**		13		mg/L		08/01/25 15:49	08/08/25 21:30	4
Sodium	**10000**		60		mg/L		08/01/25 15:49	08/08/25 18:47	100
SiO2, Silica	**27**		2.3		mg/L		08/01/25 15:49	08/08/25 15:17	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Strontium	**7.8**		0.050		mg/L			08/06/25 15:29	5

Method: SW846 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		20		ug/L			08/05/25 17:15	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		1.0		mg/L		07/20/25 11:39	07/24/25 15:57	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		08/01/25 12:27	08/04/25 15:20	1
Chemical Oxygen Demand (EPA 410.4)	**36**		10		mg/L		08/03/25 08:40	08/03/25 08:20	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**96**		5.0		mg/L			07/30/25 16:31	1
Bicarbonate (as CaCO3) (SM 2320B)	**96**		5.0		mg/L			07/30/25 16:31	1
Carbonate (as CaCO3) (SM 2320B)	ND		5.0		mg/L			07/30/25 16:31	1
Hydroxide (as CaCO3) (SM 2320B)	ND		5.0		mg/L			07/30/25 16:31	1
Salinity (SM 2520B)	**35**		2.0		psu			08/11/25 14:18	1
Total Dissolved Solids (SM 2540C)	**35000**		1000		mg/L			07/23/25 12:38	1
Carbon, Non-Purgable Organic (SM 5310C)	ND	F1	0.50		mg/L			08/14/25 01:55	1

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	**305**	**G**	57.3	64.9	4.00	59.8	pCi/L	07/28/25 07:56	07/29/25 18:20	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.255	U	0.357	0.357	1.00	0.377	pCi/L	07/24/25 08:08	08/08/25 20:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*30 - 110*	*07/24/25 08:08*	*08/08/25 20:35*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Client Sample ID: Well 15 120 Hr Dup

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161569-1

Matrix: Water

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.19	U G	0.804	0.811	1.00	1.21	pCi/L	07/24/25 08:13	08/08/25 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*30 - 110*	*07/24/25 08:13*	*08/08/25 11:40*	*1*
Y Carrier	*78.1*		*30 - 110*	*07/24/25 08:13*	*08/08/25 11:40*	*1*

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	1.88	U G	4.05	4.05	3.00	4.19	pCi/L	07/29/25 14:25	08/11/25 15:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*33.5*		*30 - 110*	*07/29/25 14:25*	*08/11/25 15:13*	*1*
Y Carrier	*87.5*		*30 - 110*	*07/29/25 14:25*	*08/11/25 15:13*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.44**		0.880	0.886	5.00	1.21	pCi/L		08/11/25 14:23	1

Method: SM7110C - Gross Alpha by Co-Precipitation

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	**6.41**		1.46	1.63	3.00	0.670	pCi/L	07/25/25 10:05	07/29/25 07:35	1

Method: HASL U-02-RC - Uranium, Method U02

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Uranium-234	**0.943**		0.326	0.336	1.00	0.126	pCi/L	07/24/25 13:19	07/31/25 09:11	1
Uranium-235	-0.0128	U	0.0182	0.0182	1.00	0.145	pCi/L	07/24/25 13:19	07/31/25 09:11	1
Uranium-238	**0.489**		0.233	0.237	1.00	0.111	pCi/L	07/24/25 13:19	07/31/25 09:11	1
Total Uranium	**1.43**		0.401	0.412	1.00	0.145	pCi/L	07/24/25 13:19	07/31/25 09:11	1

Tracer	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Uranium-232	*65.4*		*30 - 110*	*07/24/25 13:19*	*07/31/25 09:11*	*1*

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
380-161569-1	Well 15 120 Hr Dup	97	108	100	103
LCS 570-599498/1002	Lab Control Sample	95	97	96	96
LCSD 570-599498/3	Lab Control Sample Dup	97	98	95	97
MB 570-599498/5	Method Blank	93	109	100	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-161569-1	Well 15 120 Hr Dup	95	81	61	94	51	84
LCS 570-600577/2-A	Lab Control Sample	93	84	50	88	33	91
LCSD 570-600577/3-A	Lab Control Sample Dup	104	91	58	97	37	99
MB 570-600577/1-A	Method Blank	93	86	44	101	27	83

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FLN10	BAPd12	MNPd10
Lab Sample ID	Client Sample ID	(30-187)	(32-194)	(45-130)
380-161569-1	Well 15 120 Hr Dup	77	73	72
LCS 410-675323/2-A	Lab Control Sample	79	79	67
LCSD 410-675323/3-A	Lab Control Sample Dup	68	67	58
MB 410-675323/1-A	Method Blank	75	73	72

Surrogate Legend

FLN10 = Fluoranthene-d10 (Surr)
BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	BFB1 (20-144)
380-161569-1	Well 15 120 Hr Dup	74
LCS 570-603559/1008	Lab Control Sample	93
LCSD 570-603559/9	Lab Control Sample Dup	95
MB 570-603559/10	Method Blank	90

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB2 (20-154)	TCX2 (20-139)
380-161569-1	Well 15 120 Hr Dup	87	61

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)
LCS 570-599806/2-A	Lab Control Sample	82	73

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX2 (20-139)
LCSD 570-599806/3-A	Lab Control Sample Dup	93	82

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB2 (20-154)	TCX1 (20-139)
MB 570-599806/1-A	Method Blank	87	64

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)
380-161569-1	Well 15 120 Hr Dup	96	50
LCS 570-599806/4-A	Lab Control Sample	82	63
LCSD 570-599806/5-A	Lab Control Sample Dup	65	49
MB 570-599806/1-A	Method Blank	103	58

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)
380-161569-1	Well 15 120 Hr Dup	124	106
380-161569-1 DU	Well 15 120 Hr Dup	127	111
LCS 410-676092/2-A	Lab Control Sample	109	109
LCSD 410-676092/3-A	Lab Control Sample Dup	112	109
MB 410-676092/1-A	Method Blank	109	109

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	OTCSN1 (53-151)	OTCSN1 (53-151)
380-161569-1	Well 15 120 Hr Dup	87	87
LCS 570-601068/4-A	Lab Control Sample	93	93
LCSD 570-601068/5-A	Lab Control Sample Dup	92	92
MB 570-601068/1-A	Method Blank	72	72

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015C - Glycols- Direct Injection (GC/FID)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	14BD1 (10-130)
380-161569-1	Well 15 120 Hr Dup	65
LCS 410-678317/2-A	Lab Control Sample	107
MB 410-678317/1-A	Method Blank	87

Surrogate Legend

14BD = 1,4-Butanediol

Tracer/Carrier Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba (30-110)							
380-161569-1	Well 15 120 Hr Dup	86.1							
LCS 160-728731/2-A	Lab Control Sample	90.9							
MB 160-728731/1-A	Method Blank	89.9							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)						
380-161569-1	Well 15 120 Hr Dup	86.1	78.1						
LCS 160-728732/2-A	Lab Control Sample	90.9	80.7						
MB 160-728732/1-A	Method Blank	89.9	78.1						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)						
380-161569-1	Well 15 120 Hr Dup	33.5	87.5						
LCS 160-729588/2-A	Lab Control Sample	79.9	87.1						
LCSD 160-729588/3-A	Lab Control Sample Dup	84.0	95.3						
MB 160-729588/1-A	Method Blank	84.9	90.1						

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: U-02-RC - Uranium, Method U02

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	U-232 (30-110)							
380-161569-1	Well 15 120 Hr Dup	65.4							
LCS 160-728887/2-A	Lab Control Sample	81.2							
MB 160-728887/1-A	Method Blank	79.5							

Tracer/Carrier Legend

U-232 = Uranium-232

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-599498/5
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/19/25 11:20	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/19/25 11:20	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/19/25 11:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/19/25 11:20	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/19/25 11:20	1
1,1-Dichloroethane	ND		1.0		ug/L			07/19/25 11:20	1
1,1-Dichloroethene	ND		1.0		ug/L			07/19/25 11:20	1
1,1-Dichloropropene	ND		1.0		ug/L			07/19/25 11:20	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/19/25 11:20	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/19/25 11:20	1
1,2-Dibromoethane	ND		1.0		ug/L			07/19/25 11:20	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,2-Dichloroethane	ND		0.50		ug/L			07/19/25 11:20	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/19/25 11:20	1
1,2-Dichloropropane	ND		1.0		ug/L			07/19/25 11:20	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
1,3-Dichloropropane	ND		1.0		ug/L			07/19/25 11:20	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/19/25 11:20	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/19/25 11:20	1
2,2-Dichloropropane	ND		1.0		ug/L			07/19/25 11:20	1
2-Butanone	ND		10		ug/L			07/19/25 11:20	1
2-Chlorotoluene	ND		1.0		ug/L			07/19/25 11:20	1
2-Hexanone	ND		10		ug/L			07/19/25 11:20	1
4-Chlorotoluene	ND		1.0		ug/L			07/19/25 11:20	1
4-Methyl-2-pentanone	ND		10		ug/L			07/19/25 11:20	1
Acetone	ND		12		ug/L			07/19/25 11:20	1
Benzene	ND		0.50		ug/L			07/19/25 11:20	1
Bromobenzene	ND		1.0		ug/L			07/19/25 11:20	1
Bromochloromethane	ND		1.0		ug/L			07/19/25 11:20	1
Bromodichloromethane	ND		1.0		ug/L			07/19/25 11:20	1
Bromoform	ND		1.0		ug/L			07/19/25 11:20	1
Bromomethane	ND		5.0		ug/L			07/19/25 11:20	1
Carbon disulfide	ND		10		ug/L			07/19/25 11:20	1
Carbon tetrachloride	ND		0.50		ug/L			07/19/25 11:20	1
Chlorobenzene	ND		1.0		ug/L			07/19/25 11:20	1
Chloroethane	ND		1.0		ug/L			07/19/25 11:20	1
Chloroform	ND		1.0		ug/L			07/19/25 11:20	1
Chloromethane	ND		1.0		ug/L			07/19/25 11:20	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/19/25 11:20	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/19/25 11:20	1
Dibromochloromethane	ND		1.0		ug/L			07/19/25 11:20	1
Dibromomethane	ND		1.0		ug/L			07/19/25 11:20	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/19/25 11:20	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-599498/5
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Di-isopropyl ether (DIPE)	ND		2.0		ug/L			07/19/25 11:20	1
Ethanol	ND		100		ug/L			07/19/25 11:20	1
Ethylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			07/19/25 11:20	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/19/25 11:20	1
Isopropanol	ND		50		ug/L			07/19/25 11:20	1
Isopropylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
m,p-Xylene	ND		1.0		ug/L			07/19/25 11:20	1
Methylene Chloride	ND		2.0		ug/L			07/19/25 11:20	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			07/19/25 11:20	1
Naphthalene	ND		10		ug/L			07/19/25 11:20	1
n-Butylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
N-Propylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
o-Xylene	ND		1.0		ug/L			07/19/25 11:20	1
p-Isopropyltoluene	ND		1.0		ug/L			07/19/25 11:20	1
sec-Butylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
Styrene	ND		1.0		ug/L			07/19/25 11:20	1
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			07/19/25 11:20	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			07/19/25 11:20	1
tert-Butylbenzene	ND		1.0		ug/L			07/19/25 11:20	1
Tetrachloroethene	ND		1.0		ug/L			07/19/25 11:20	1
Tetrahydrofuran	ND		10		ug/L			07/19/25 11:20	1
Toluene	ND		1.0		ug/L			07/19/25 11:20	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/19/25 11:20	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/19/25 11:20	1
Trichloroethene	ND		1.0		ug/L			07/19/25 11:20	1
Trichlorofluoromethane	ND		5.0		ug/L			07/19/25 11:20	1
Trihalomethanes, Total	ND		1.0		ug/L			07/19/25 11:20	1
Vinyl acetate	ND		10		ug/L			07/19/25 11:20	1
Vinyl chloride	ND		0.50		ug/L			07/19/25 11:20	1
Xylenes, Total	ND		1.0		ug/L			07/19/25 11:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*60 - 140*		*07/19/25 11:20*	*1*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*		*07/19/25 11:20*	*1*
Dibromofluoromethane	*100*		*60 - 140*		*07/19/25 11:20*	*1*
Toluene-d8 (Surr)	*102*		*60 - 140*		*07/19/25 11:20*	*1*

Lab Sample ID: LCS 570-599498/1002
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	18.8		ug/L		94	60 - 140
1,1,1-Trichloroethane	20.0	17.7		ug/L		89	70 - 130
1,1,2,2-Tetrachloroethane	20.0	17.8		ug/L		89	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	16.6		ug/L		83	60 - 140
1,1,2-Trichloroethane	20.0	18.0		ug/L		90	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-599498/1002
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	20.0	17.7		ug/L		88	70 - 130
1,1-Dichloroethene	20.0	16.5		ug/L		83	50 - 150
1,1-Dichloropropene	20.0	17.6		ug/L		88	60 - 140
1,2,3-Trichlorobenzene	20.0	21.2		ug/L		106	60 - 140
1,2,3-Trichloropropane	20.0	18.0		ug/L		90	60 - 140
1,2,4-Trichlorobenzene	20.0	21.3		ug/L		107	60 - 140
1,2,4-Trimethylbenzene	20.0	18.7		ug/L		94	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	19.2		ug/L		96	60 - 140
1,2-Dibromoethane	20.0	19.1		ug/L		95	60 - 140
1,2-Dichlorobenzene	20.0	19.7		ug/L		99	65 - 135
1,2-Dichloroethane	20.0	17.9		ug/L		90	70 - 130
1,2-Dichloropropane	20.0	18.3		ug/L		92	35 - 165
1,3,5-Trimethylbenzene	20.0	18.1		ug/L		91	60 - 140
1,3-Dichlorobenzene	20.0	19.5		ug/L		97	70 - 130
1,3-Dichloropropane	20.0	18.4		ug/L		92	60 - 140
1,4-Dichlorobenzene	20.0	18.8		ug/L		94	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	16.8		ug/L		84	60 - 140
2,2-Dichloropropane	20.0	19.0		ug/L		95	60 - 140
2-Butanone	20.0	17.5		ug/L		88	60 - 140
2-Chloroethyl vinyl ether	20.0	17.1		ug/L		85	1 - 225
2-Chlorotoluene	20.0	17.8		ug/L		89	60 - 140
2-Hexanone	20.0	18.1		ug/L		90	60 - 140
4-Chlorotoluene	20.0	18.5		ug/L		93	60 - 140
4-Methyl-2-pentanone	20.0	18.9		ug/L		94	60 - 140
Acetone	20.0	16.1		ug/L		81	60 - 140
Acrolein	40.0	28.7		ug/L		72	60 - 140
Acrylonitrile	20.0	18.5		ug/L		92	60 - 140
Benzene	20.0	18.1		ug/L		91	65 - 135
Bromobenzene	20.0	19.0		ug/L		95	60 - 140
Bromochloromethane	20.0	18.9		ug/L		95	60 - 140
Bromodichloromethane	20.0	19.2		ug/L		96	65 - 135
Bromoform	20.0	19.6		ug/L		98	70 - 130
Bromomethane	20.0	15.3		ug/L		76	15 - 185
Carbon disulfide	20.0	16.1		ug/L		80	60 - 140
Carbon tetrachloride	20.0	19.9		ug/L		100	70 - 130
Chlorobenzene	20.0	18.3		ug/L		92	65 - 135
Chloroethane	20.0	18.0		ug/L		90	40 - 160
Chloroform	20.0	17.9		ug/L		89	70 - 135
Chloromethane	20.0	12.0		ug/L		60	1 - 205
cis-1,2-Dichloroethene	20.0	18.4		ug/L		92	60 - 140
cis-1,3-Dichloropropene	20.0	18.9		ug/L		95	25 - 175
Dibromochloromethane	20.0	18.5		ug/L		93	70 - 135
Dibromomethane	20.0	19.1		ug/L		95	60 - 140
Dichlorodifluoromethane	20.0	18.4		ug/L		92	60 - 140
Di-isopropyl ether (DIPE)	20.0	17.0		ug/L		85	60 - 140
Ethanol	200	173		ug/L		87	60 - 140
Ethylbenzene	20.0	17.6		ug/L		88	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	17.8		ug/L		89	60 - 140
Hexachloro-1,3-butadiene	20.0	19.4		ug/L		97	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-599498/1002
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropanol	100	91.7		ug/L		92	60 - 140
Isopropylbenzene	20.0	17.6		ug/L		88	60 - 140
m,p-Xylene	40.0	34.7		ug/L		87	60 - 140
Methylene Chloride	20.0	17.6		ug/L		88	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	19.3		ug/L		96	60 - 140
Naphthalene	20.0	19.0		ug/L		95	60 - 140
n-Butylbenzene	20.0	18.9		ug/L		94	60 - 140
N-Propylbenzene	20.0	17.8		ug/L		89	60 - 140
o-Xylene	20.0	18.0		ug/L		90	60 - 140
p-Isopropyltoluene	20.0	18.9		ug/L		95	60 - 140
sec-Butylbenzene	20.0	18.8		ug/L		94	60 - 140
Styrene	20.0	18.3		ug/L		92	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	18.3		ug/L		92	60 - 140
tert-Butyl alcohol (TBA)	100	94.0		ug/L		94	60 - 140
tert-Butylbenzene	20.0	19.1		ug/L		95	60 - 140
Tetrachloroethene	20.0	18.4		ug/L		92	70 - 130
Tetrahydrofuran	20.0	18.0		ug/L		90	60 - 140
Toluene	20.0	18.0		ug/L		90	70 - 130
trans-1,2-Dichloroethene	20.0	17.7		ug/L		89	70 - 130
trans-1,3-Dichloropropene	20.0	20.0		ug/L		100	50 - 150
Trichloroethene	20.0	18.1		ug/L		91	65 - 135
Trichlorofluoromethane	20.0	18.1		ug/L		90	50 - 150
Vinyl acetate	20.0	19.3		ug/L		97	60 - 140
Vinyl chloride	20.0	17.6		ug/L		88	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*60 - 140*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*
Dibromofluoromethane	*96*		*60 - 140*
Toluene-d8 (Surr)	*96*		*60 - 140*

Lab Sample ID: LCSD 570-599498/3
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	18.2		ug/L		91	60 - 140	4	30
1,1,1-Trichloroethane	20.0	17.0		ug/L		85	70 - 130	4	36
1,1,2,2-Tetrachloroethane	20.0	18.3		ug/L		92	60 - 140	3	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	16.0		ug/L		80	60 - 140	4	30
1,1,2-Trichloroethane	20.0	18.2		ug/L		91	70 - 130	1	45
1,1-Dichloroethane	20.0	17.4		ug/L		87	70 - 130	2	40
1,1-Dichloroethene	20.0	16.0		ug/L		80	50 - 150	3	32
1,1-Dichloropropene	20.0	16.7		ug/L		83	60 - 140	6	30
1,2,3-Trichlorobenzene	20.0	21.3		ug/L		107	60 - 140	1	30
1,2,3-Trichloropropane	20.0	18.6		ug/L		93	60 - 140	3	30
1,2,4-Trichlorobenzene	20.0	21.2		ug/L		106	60 - 140	1	30
1,2,4-Trimethylbenzene	20.0	18.3		ug/L		91	60 - 140	2	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-599498/3
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	20.0	19.3		ug/L		96	60 - 140	0	30
1,2-Dibromoethane	20.0	18.7		ug/L		94	60 - 140	2	30
1,2-Dichlorobenzene	20.0	19.3		ug/L		96	65 - 135	2	57
1,2-Dichloroethane	20.0	17.9		ug/L		89	70 - 130	0	49
1,2-Dichloropropane	20.0	18.0		ug/L		90	35 - 165	2	55
1,3,5-Trimethylbenzene	20.0	17.8		ug/L		89	60 - 140	2	30
1,3-Dichlorobenzene	20.0	19.2		ug/L		96	70 - 130	1	43
1,3-Dichloropropane	20.0	17.8		ug/L		89	60 - 140	3	30
1,4-Dichlorobenzene	20.0	18.3		ug/L		91	65 - 135	3	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	16.2		ug/L		81	60 - 140	3	30
2,2-Dichloropropane	20.0	18.3		ug/L		92	60 - 140	3	30
2-Butanone	20.0	16.7		ug/L		84	60 - 140	5	30
2-Chloroethyl vinyl ether	20.0	17.4		ug/L		87	1 - 225	2	71
2-Chlorotoluene	20.0	17.6		ug/L		88	60 - 140	1	30
2-Hexanone	20.0	18.5		ug/L		92	60 - 140	2	30
4-Chlorotoluene	20.0	18.0		ug/L		90	60 - 140	3	30
4-Methyl-2-pentanone	20.0	19.5		ug/L		97	60 - 140	3	30
Acetone	20.0	14.1		ug/L		71	60 - 140	13	30
Acrolein	40.0	26.3		ug/L		66	60 - 140	9	60
Acrylonitrile	20.0	18.9		ug/L		95	60 - 140	3	60
Benzene	20.0	17.5		ug/L		87	65 - 135	4	61
Bromobenzene	20.0	18.5		ug/L		92	60 - 140	3	30
Bromochloromethane	20.0	18.6		ug/L		93	60 - 140	2	30
Bromodichloromethane	20.0	19.1		ug/L		96	65 - 135	1	56
Bromoform	20.0	19.0		ug/L		95	70 - 130	3	42
Bromomethane	20.0	16.1		ug/L		81	15 - 185	5	61
Carbon disulfide	20.0	15.8		ug/L		79	60 - 140	2	30
Carbon tetrachloride	20.0	19.1		ug/L		96	70 - 130	4	41
Chlorobenzene	20.0	17.8		ug/L		89	65 - 135	3	53
Chloroethane	20.0	18.1		ug/L		91	40 - 160	1	78
Chloroform	20.0	17.9		ug/L		90	70 - 135	0	30
Chloromethane	20.0	13.5		ug/L		68	1 - 205	12	60
cis-1,2-Dichloroethene	20.0	18.0		ug/L		90	60 - 140	2	30
cis-1,3-Dichloropropene	20.0	18.6		ug/L		93	25 - 175	2	58
Dibromochloromethane	20.0	18.1		ug/L		91	70 - 135	2	50
Dibromomethane	20.0	19.6		ug/L		98	60 - 140	3	30
Dichlorodifluoromethane	20.0	17.7		ug/L		88	60 - 140	4	30
Di-isopropyl ether (DIPE)	20.0	16.6		ug/L		83	60 - 140	3	30
Ethanol	200	149		ug/L		75	60 - 140	15	30
Ethylbenzene	20.0	17.2		ug/L		86	60 - 140	2	63
Ethyl-t-butyl ether (ETBE)	20.0	17.3		ug/L		87	60 - 140	2	30
Hexachloro-1,3-butadiene	20.0	18.6		ug/L		93	60 - 140	4	30
Isopropanol	100	98.8		ug/L		99	60 - 140	7	30
Isopropylbenzene	20.0	17.2		ug/L		86	60 - 140	3	30
m,p-Xylene	40.0	33.7		ug/L		84	60 - 140	3	30
Methylene Chloride	20.0	17.1		ug/L		86	60 - 140	2	28
Methyl-t-Butyl Ether (MTBE)	20.0	18.8		ug/L		94	60 - 140	3	30
Naphthalene	20.0	19.4		ug/L		97	60 - 140	2	30
n-Butylbenzene	20.0	18.1		ug/L		91	60 - 140	4	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-599498/3
Matrix: Water
Analysis Batch: 599498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-Propylbenzene			20.0	17.1		ug/L		86	60 - 140	4	30
o-Xylene			20.0	17.4		ug/L		87	60 - 140	4	30
p-Isopropyltoluene			20.0	17.9		ug/L		90	60 - 140	6	30
sec-Butylbenzene			20.0	18.0		ug/L		90	60 - 140	4	30
Styrene			20.0	17.6		ug/L		88	60 - 140	4	30
Tert-amyl-methyl ether (TAME)			20.0	18.2		ug/L		91	60 - 140	1	30
tert-Butyl alcohol (TBA)			100	94.3		ug/L		94	60 - 140	0	30
tert-Butylbenzene			20.0	18.5		ug/L		92	60 - 140	3	30
Tetrachloroethene			20.0	17.7		ug/L		89	70 - 130	4	39
Tetrahydrofuran			20.0	17.6		ug/L		88	60 - 140	2	30
Toluene			20.0	17.7		ug/L		89	70 - 130	1	41
trans-1,2-Dichloroethene			20.0	17.1		ug/L		85	70 - 130	4	45
trans-1,3-Dichloropropene			20.0	19.3		ug/L		97	50 - 150	3	86
Trichloroethene			20.0	17.8		ug/L		89	65 - 135	2	48
Trichlorofluoromethane			20.0	17.6		ug/L		88	50 - 150	3	84
Vinyl acetate			20.0	19.6		ug/L		98	60 - 140	2	30
Vinyl chloride			20.0	17.1		ug/L		85	5 - 195	3	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*60 - 140*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*
Dibromofluoromethane	*95*		*60 - 140*
Toluene-d8 (Surr)	*97*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-600577/1-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 600577

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
1,2-Dichlorobenzene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
1,3-Dichlorobenzene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
1,4-Dichlorobenzene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
1-Methylnaphthalene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4,5-Trichlorophenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4,6-Trichlorophenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4-Dichlorophenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4-Dimethylphenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4-Dinitrophenol	ND		50		ug/L		07/22/25 11:44	07/25/25 22:54	1
2,4-Dinitrotoluene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2,6-Dichlorophenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2,6-Dinitrotoluene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2-Chloronaphthalene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2-Chlorophenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2-Methylnaphthalene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-600577/1-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 600577

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2-Nitroaniline	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
2-Nitrophenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
3,3'-Dichlorobenzidine	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
3/4-Methylphenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
3-Nitroaniline	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Bromophenyl phenyl ether	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Chloro-3-methylphenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Chloroaniline	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Nitroaniline	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
4-Nitrophenol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Acenaphthene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Acenaphthylene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Acetophenone	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Alpha-Terpineol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Aniline	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Anthracene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Azobenzene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzidine	ND		50		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzo[a]anthracene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzo[a]pyrene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzo[b]fluoranthene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzo[g,h,i]perylene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzo[k]fluoranthene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzoic acid	ND		50		ug/L		07/22/25 11:44	07/25/25 22:54	1
Benzyl alcohol	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Bis(2-chloroethyl)ether	ND		25		ug/L		07/22/25 11:44	07/25/25 22:54	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Butyl benzyl phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Carbazole	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Chrysene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Dibenz(a,h)anthracene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Dibenzofuran	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Diethyl phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Dimethyl phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Di-n-butyl phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Di-n-octyl phthalate	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Fluoranthene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Fluorene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Hexachloro-1,3-butadiene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Hexachlorobenzene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Hexachlorocyclopentadiene	ND		25		ug/L		07/22/25 11:44	07/25/25 22:54	1
Hexachloroethane	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1
Isophorone	ND		10		ug/L		07/22/25 11:44	07/25/25 22:54	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-600577/1-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 600577

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
n-Decane	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Nitrobenzene	ND		25	ug/L		07/22/25 11:44	07/25/25 22:54	1
N-Nitrosodimethylamine	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
N-Nitrosodiphenylamine	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
n-Octadecane	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Pentachlorophenol	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Phenanthrene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Phenol	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Pyrene	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1
Pyridine	ND		10	ug/L		07/22/25 11:44	07/25/25 22:54	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*07/22/25 11:44*	*07/25/25 22:54*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*93*		*33 - 139*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
2-Fluorobiphenyl (Surr)	*86*		*33 - 126*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
2-Fluorophenol (Surr)	*44*		*12 - 120*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
Nitrobenzene-d5 (Surr)	*101*		*36 - 120*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
Phenol-d6 (Surr)	*27*		*10 - 120*	*07/22/25 11:44*	*07/25/25 22:54*	*1*
p-Terphenyl-d14 (Surr)	*83*		*47 - 131*	*07/22/25 11:44*	*07/25/25 22:54*	*1*

Lab Sample ID: LCS 570-600577/2-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 600577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	100	88.2		ug/L		88	57 - 130
1,2-Dichlorobenzene	100	79.8		ug/L		80	50 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	87.2		ug/L		87	57 - 120
1,3-Dichlorobenzene	100	77.8		ug/L		78	46 - 120
1,4-Dichlorobenzene	100	80.1		ug/L		80	47 - 120
1-Methylnaphthalene	100	91.1		ug/L		91	63 - 120
2,4,5-Trichlorophenol	100	97.3		ug/L		97	62 - 120
2,4,6-Trichlorophenol	100	94.9		ug/L		95	52 - 129
2,4-Dichlorophenol	100	89.5		ug/L		90	53 - 122
2,4-Dimethylphenol	100	85.7		ug/L		86	42 - 120
2,4-Dinitrophenol	100	101		ug/L		101	1 - 173
2,4-Dinitrotoluene	100	93.3		ug/L		93	48 - 127
2,6-Dichlorophenol	100	91.8		ug/L		92	64 - 120
2,6-Dinitrotoluene	100	94.6		ug/L		95	68 - 137

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-600577/2-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 600577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	100	90.3		ug/L		90	65 - 120
2-Chlorophenol	100	89.6		ug/L		90	36 - 120
2-Methylnaphthalene	100	87.9		ug/L		88	60 - 120
2-Methylphenol	100	73.9		ug/L		74	55 - 120
2-Nitroaniline	100	103		ug/L		103	53 - 120
2-Nitrophenol	100	89.6		ug/L		90	45 - 167
3,3'-Dichlorobenzidine	100	80.4		ug/L		80	8 - 213
3/4-Methylphenol	200	128		ug/L		64	41 - 120
3-Nitroaniline	100	94.1		ug/L		94	62 - 120
4,6-Dinitro-2-methylphenol	100	89.5		ug/L		89	53 - 130
4-Bromophenyl phenyl ether	100	91.7		ug/L		92	65 - 120
4-Chloro-3-methylphenol	100	93.6		ug/L		94	41 - 128
4-Chloroaniline	100	83.2		ug/L		83	53 - 120
4-Chlorophenyl phenyl ether	100	102		ug/L		102	38 - 145
4-Nitroaniline	100	99.3		ug/L		99	61 - 120
4-Nitrophenol	100	37.9		ug/L		38	13 - 129
Acenaphthene	100	94.3		ug/L		94	60 - 132
Acenaphthylene	100	93.3		ug/L		93	54 - 126
Acetophenone	100	91.3		ug/L		91	45 - 120
Alpha-Terpineol	100	85.2		ug/L		85	60 - 140
Aniline	100	60.6		ug/L		61	50 - 120
Anthracene	100	86.4		ug/L		86	43 - 120
Azobenzene	100	87.2		ug/L		87	57 - 120
Benzidine	100	ND	*-	ug/L		0.4	20 - 143
Benzo[a]anthracene	100	93.4		ug/L		93	42 - 133
Benzo[a]pyrene	100	94.5		ug/L		94	32 - 148
Benzo[b]fluoranthene	100	93.1		ug/L		93	42 - 140
Benzo[g,h,i]perylene	100	92.6		ug/L		93	1 - 195
Benzo[k]fluoranthene	100	97.0		ug/L		97	25 - 146
Benzoic acid	100	34.1	J	ug/L		34	20 - 120
Benzyl alcohol	100	87.0		ug/L		87	47 - 120
Bis (2-chloroethoxy) methane	100	95.4		ug/L		95	49 - 165
bis (2-chloroisopropyl) ether	100	85.2		ug/L		85	63 - 139
Bis(2-chloroethyl)ether	100	97.8		ug/L		98	43 - 126
Bis(2-ethylhexyl) phthalate	100	93.6		ug/L		94	29 - 137
Butyl benzyl phthalate	100	86.6		ug/L		87	1 - 140
Chrysene	100	91.7		ug/L		92	44 - 140
Dibenz(a,h)anthracene	100	90.9		ug/L		91	1 - 200
Dibenzofuran	100	99.9		ug/L		100	61 - 120
Diethyl phthalate	100	104		ug/L		104	1 - 120
Dimethyl phthalate	100	94.3		ug/L		94	1 - 120
Di-n-butyl phthalate	100	93.5		ug/L		94	8 - 120
Di-n-octyl phthalate	100	90.8		ug/L		91	19 - 132
Fluoranthene	100	92.4		ug/L		92	43 - 121
Fluorene	100	99.6		ug/L		100	70 - 120
Hexachloro-1,3-butadiene	100	90.7		ug/L		91	38 - 120
Hexachlorobenzene	100	83.2		ug/L		83	8 - 142
Hexachlorocyclopentadiene	100	88.2		ug/L		88	46 - 135
Hexachloroethane	100	82.8		ug/L		83	55 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-600577/2-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 600577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Indeno[1,2,3-cd]pyrene	100	90.2		ug/L		90	1 - 151
Isophorone	100	95.7		ug/L		96	47 - 180
Naphthalene	100	86.6		ug/L		87	36 - 120
Nitrobenzene	100	96.1		ug/L		96	54 - 158
N-Nitrosodimethylamine	100	53.9		ug/L		54	38 - 120
N-Nitrosodi-n-propylamine	100	99.1		ug/L		99	14 - 198
N-Nitrosodiphenylamine	100	107		ug/L		107	79 - 127
Pentachlorophenol	100	91.2		ug/L		91	38 - 152
Phenanthrene	100	88.1		ug/L		88	65 - 120
Phenol	100	33.4		ug/L		33	17 - 120
Pyrene	100	95.3		ug/L		95	70 - 120
Pyridine	100	9.17	J *-	ug/L		9	27 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*93*		*33 - 139*
2-Fluorobiphenyl (Surr)	*84*		*33 - 126*
2-Fluorophenol (Surr)	*50*		*12 - 120*
Nitrobenzene-d5 (Surr)	*88*		*36 - 120*
Phenol-d6 (Surr)	*33*		*10 - 120*
p-Terphenyl-d14 (Surr)	*91*		*47 - 131*

Lab Sample ID: LCSD 570-600577/3-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 600577

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	100		ug/L		100	57 - 130	13	30
1,2-Dichlorobenzene	100	91.7		ug/L		92	50 - 120	14	20
1,2-Diphenylhydrazine(as Azobenzene)	100	96.4		ug/L		96	57 - 120	10	20
1,3-Dichlorobenzene	100	92.3		ug/L		92	46 - 120	17	20
1,4-Dichlorobenzene	100	91.0		ug/L		91	47 - 120	13	20
1-Methylnaphthalene	100	101		ug/L		101	63 - 120	10	20
2,4,5-Trichlorophenol	100	104		ug/L		104	62 - 120	7	20
2,4,6-Trichlorophenol	100	108		ug/L		108	52 - 129	13	35
2,4-Dichlorophenol	100	102		ug/L		102	53 - 122	13	30
2,4-Dimethylphenol	100	90.5		ug/L		90	42 - 120	5	35
2,4-Dinitrophenol	100	115		ug/L		115	1 - 173	13	79
2,4-Dinitrotoluene	100	104		ug/L		104	48 - 127	11	25
2,6-Dichlorophenol	100	102		ug/L		102	64 - 120	10	20
2,6-Dinitrotoluene	100	106		ug/L		106	68 - 137	11	29
2-Chloronaphthalene	100	102		ug/L		102	65 - 120	12	15
2-Chlorophenol	100	103		ug/L		103	36 - 120	14	37
2-Methylnaphthalene	100	97.6		ug/L		98	60 - 120	11	20
2-Methylphenol	100	87.8		ug/L		88	55 - 120	17	20
2-Nitroaniline	100	114		ug/L		114	53 - 120	10	20
2-Nitrophenol	100	100		ug/L		100	45 - 167	11	33
3,3'-Dichlorobenzidine	100	83.2		ug/L		83	8 - 213	3	65
3/4-Methylphenol	200	149		ug/L		74	41 - 120	15	20

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-600577/3-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 600577

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3-Nitroaniline	100	101		ug/L		101	62 - 120	7	20
4,6-Dinitro-2-methylphenol	100	101		ug/L		101	53 - 130	13	122
4-Bromophenyl phenyl ether	100	104		ug/L		104	65 - 120	13	26
4-Chloro-3-methylphenol	100	108		ug/L		108	41 - 128	15	44
4-Chloroaniline	100	88.4		ug/L		88	53 - 120	6	20
4-Chlorophenyl phenyl ether	100	111		ug/L		111	38 - 145	8	36
4-Nitroaniline	100	107		ug/L		107	61 - 120	8	20
4-Nitrophenol	100	35.1		ug/L		35	13 - 129	8	79
Acenaphthene	100	106		ug/L		106	60 - 132	11	29
Acenaphthylene	100	104		ug/L		104	54 - 126	11	45
Acetophenone	100	103		ug/L		103	45 - 120	12	20
Alpha-Terpineol	100	94.8		ug/L		95	60 - 140	11	30
Aniline	100	70.7		ug/L		71	50 - 120	15	20
Anthracene	100	95.7		ug/L		96	43 - 120	10	40
Azobenzene	100	96.4		ug/L		96	57 - 120	10	20
Benzidine	100	ND	*- *1	ug/L		3	20 - 143	149	30
Benzo[a]anthracene	100	102		ug/L		102	42 - 133	9	32
Benzo[a]pyrene	100	103		ug/L		103	32 - 148	9	43
Benzo[b]fluoranthene	100	103		ug/L		103	42 - 140	10	43
Benzo[g,h,i]perylene	100	101		ug/L		101	1 - 195	9	61
Benzo[k]fluoranthene	100	103		ug/L		103	25 - 146	6	38
Benzoic acid	100	38.6	J	ug/L		39	20 - 120	12	20
Benzyl alcohol	100	100		ug/L		100	47 - 120	14	20
Bis (2-chloroethoxy) methane	100	106		ug/L		106	49 - 165	10	32
bis (2-chloroisopropyl) ether	100	95.4		ug/L		95	63 - 139	11	46
Bis(2-chloroethyl)ether	100	108		ug/L		108	43 - 126	10	65
Bis(2-ethylhexyl) phthalate	100	102		ug/L		102	29 - 137	9	50
Butyl benzyl phthalate	100	96.1		ug/L		96	1 - 140	10	36
Chrysene	100	103		ug/L		103	44 - 140	12	53
Dibenz(a,h)anthracene	100	94.2		ug/L		94	1 - 200	4	75
Dibenzofuran	100	110		ug/L		110	61 - 120	10	20
Diethyl phthalate	100	115		ug/L		115	1 - 120	10	60
Dimethyl phthalate	100	105		ug/L		105	1 - 120	11	110
Di-n-butyl phthalate	100	103		ug/L		103	8 - 120	9	28
Di-n-octyl phthalate	100	98.3		ug/L		98	19 - 132	8	42
Fluoranthene	100	102		ug/L		102	43 - 121	10	40
Fluorene	100	111		ug/L		111	70 - 120	11	23
Hexachloro-1,3-butadiene	100	102		ug/L		102	38 - 120	12	38
Hexachlorobenzene	100	93.2		ug/L		93	8 - 142	11	33
Hexachlorocyclopentadiene	100	102		ug/L		102	46 - 135	15	20
Hexachloroethane	100	95.4		ug/L		95	55 - 120	14	32
Indeno[1,2,3-cd]pyrene	100	96.2		ug/L		96	1 - 151	6	60
Isophorone	100	105		ug/L		105	47 - 180	9	56
Naphthalene	100	98.9		ug/L		99	36 - 120	13	39
Nitrobenzene	100	107		ug/L		107	54 - 158	10	37
N-Nitrosodimethylamine	100	61.5		ug/L		61	38 - 120	13	20
N-Nitrosodi-n-propylamine	100	109		ug/L		109	14 - 198	10	52
N-Nitrosodiphenylamine	100	119		ug/L		119	79 - 127	11	20
Pentachlorophenol	100	103		ug/L		103	38 - 152	13	52

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-600577/3-A
Matrix: Water
Analysis Batch: 602673

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 600577

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene			100	97.9		ug/L		98	65 - 120	11	24
Phenol			100	38.9		ug/L		39	17 - 120	15	39
Pyrene			100	103		ug/L		103	70 - 120	8	30
Pyridine			100	23.0	*- *1	ug/L		23	27 - 120	86	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*104*		*33 - 139*
2-Fluorobiphenyl (Surr)	*91*		*33 - 126*
2-Fluorophenol (Surr)	*58*		*12 - 120*
Nitrobenzene-d5 (Surr)	*97*		*36 - 120*
Phenol-d6 (Surr)	*37*		*10 - 120*
p-Terphenyl-d14 (Surr)	*99*		*47 - 131*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 410-675323/1-A
Matrix: Water
Analysis Batch: 676946

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 675323

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		07/23/25 15:14	07/28/25 12:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*75*		*30 - 187*	*07/23/25 15:14*	*07/28/25 12:39*	*1*
Benzo(a)pyrene-d12 (Surr)	*73*		*32 - 194*	*07/23/25 15:14*	*07/28/25 12:39*	*1*
1-Methylnaphthalene-d10	*72*		*45 - 130*	*07/23/25 15:14*	*07/28/25 12:39*	*1*

Lab Sample ID: LCS 410-675323/2-A
Matrix: Water
Analysis Batch: 676946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 675323

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			1.00	0.519		ug/L		52	18 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*79*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*79*		*32 - 194*
1-Methylnaphthalene-d10	*67*		*45 - 130*

Lab Sample ID: LCSD 410-675323/3-A
Matrix: Water
Analysis Batch: 676946

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 675323

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			1.00	0.457		ug/L		46	18 - 130	13	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*68*		*30 - 187*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCSD 410-675323/3-A
Matrix: Water
Analysis Batch: 676946

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 675323

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Benzo(a)pyrene-d12 (Surr)	*67*		*32 - 194*
1-Methylnaphthalene-d10	*58*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-603559/10
Matrix: Water
Analysis Batch: 603559

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50		ug/L			07/28/25 21:07	1
Gasoline Range Organics (C4-C12)	ND		50		ug/L			07/28/25 21:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*20 - 144*		*07/28/25 21:07*	*1*

Lab Sample ID: LCS 570-603559/1008
Matrix: Water
Analysis Batch: 603559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			2000	1830		ug/L		92	71 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*20 - 144*

Lab Sample ID: LCSD 570-603559/9
Matrix: Water
Analysis Batch: 603559

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2000	1740		ug/L		87	71 - 120	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*20 - 144*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-599806/1-A
Matrix: Water
Analysis Batch: 601222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599806

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0067		ug/L		07/21/25 05:53	07/23/25 15:31	1
4,4'-DDE	ND		0.0033		ug/L		07/21/25 05:53	07/23/25 15:31	1
4,4'-DDT	ND		0.0033		ug/L		07/21/25 05:53	07/23/25 15:31	1
Aldrin	ND		0.0033		ug/L		07/21/25 05:53	07/23/25 15:31	1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 570-599806/1-A
Matrix: Water
Analysis Batch: 601222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599806

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	ND		0.0013	ug/L		07/21/25 05:53	07/23/25 15:31	1
alpha-Chlordane	ND		0.033	ug/L		07/21/25 05:53	07/23/25 15:31	1
beta-BHC	ND		0.0050	ug/L		07/21/25 05:53	07/23/25 15:31	1
Chlordane	ND		0.033	ug/L		07/21/25 05:53	07/23/25 15:31	1
delta-BHC	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
Dieldrin	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endosulfan I	ND		0.0013	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endosulfan II	ND		0.0067	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endosulfan sulfate	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endrin	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endrin aldehyde	ND		0.033	ug/L		07/21/25 05:53	07/23/25 15:31	1
Endrin ketone	ND		0.0033	ug/L		07/21/25 05:53	07/23/25 15:31	1
gamma-BHC (Lindane)	ND		0.0013	ug/L		07/21/25 05:53	07/23/25 15:31	1
gamma-Chlordane	ND		0.010	ug/L		07/21/25 05:53	07/23/25 15:31	1
Heptachlor	ND		0.0013	ug/L		07/21/25 05:53	07/23/25 15:31	1
Heptachlor epoxide	ND		0.0067	ug/L		07/21/25 05:53	07/23/25 15:31	1
Methoxychlor	ND		0.0067	ug/L		07/21/25 05:53	07/23/25 15:31	1
Toxaphene	ND		0.067	ug/L		07/21/25 05:53	07/23/25 15:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*87*		*20 - 154*	*07/21/25 05:53*	*07/23/25 15:31*	*1*
Tetrachloro-m-xylene (Surr)	*64*		*20 - 139*	*07/21/25 05:53*	*07/23/25 15:31*	*1*

Lab Sample ID: LCS 570-599806/2-A
Matrix: Water
Analysis Batch: 603099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599806

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0333	0.0212		ug/L		64	31 - 141
4,4'-DDE	0.0333	0.0204		ug/L		61	30 - 145
4,4'-DDT	0.0333	0.0234		ug/L		70	25 - 160
Aldrin	0.0333	0.0195		ug/L		59	42 - 140
alpha-BHC	0.0333	0.0206		ug/L		62	37 - 140
alpha-Chlordane	0.0333	0.0201	J	ug/L		60	45 - 140
beta-BHC	0.0333	0.0196		ug/L		59	17 - 147
delta-BHC	0.0333	0.0176		ug/L		53	19 - 140
Dieldrin	0.0333	0.0209		ug/L		63	36 - 146
Endosulfan I	0.0333	0.0200		ug/L		60	45 - 153
Endosulfan II	0.0333	0.0202		ug/L		61	1 - 202
Endosulfan sulfate	0.0333	0.0212		ug/L		64	26 - 144
Endrin	0.0333	0.0212		ug/L		64	30 - 147
Endrin aldehyde	0.0333	ND		ug/L		61	50 - 135
Endrin ketone	0.0333	0.0236		ug/L		71	60 - 140
gamma-BHC (Lindane)	0.0333	0.0211		ug/L		63	32 - 140
gamma-Chlordane	0.0333	0.0195		ug/L		59	45 - 140
Heptachlor	0.0333	0.0201		ug/L		60	34 - 140
Heptachlor epoxide	0.0333	0.0194		ug/L		58	37 - 142
Methoxychlor	0.0333	0.0211		ug/L		63	50 - 135

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCS 570-599806/2-A
Matrix: Water
Analysis Batch: 603099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599806

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	82		20 - 154
Tetrachloro-m-xylene (Surr)	73		20 - 139

Lab Sample ID: LCSD 570-599806/3-A
Matrix: Water
Analysis Batch: 603099

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599806

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.0333	0.0238		ug/L		72	31 - 141	12	39
4,4'-DDE			0.0333	0.0230		ug/L		69	30 - 145	12	35
4,4'-DDT			0.0333	0.0260		ug/L		78	25 - 160	10	42
Aldrin			0.0333	0.0217		ug/L		65	42 - 140	11	35
alpha-BHC			0.0333	0.0235		ug/L		70	37 - 140	13	36
alpha-Chlordane			0.0333	0.0229	J	ug/L		69	45 - 140	13	35
beta-BHC			0.0333	0.0220		ug/L		66	17 - 147	12	44
delta-BHC			0.0333	0.0198		ug/L		59	19 - 140	12	52
Dieldrin			0.0333	0.0232		ug/L		70	36 - 146	10	49
Endosulfan I			0.0333	0.0225		ug/L		67	45 - 153	12	28
Endosulfan II			0.0333	0.0225		ug/L		68	1 - 202	11	53
Endosulfan sulfate			0.0333	0.0238		ug/L		71	26 - 144	11	38
Endrin			0.0333	0.0236		ug/L		71	30 - 147	11	48
Endrin aldehyde			0.0333	ND		ug/L		70	50 - 135	13	25
Endrin ketone			0.0333	0.0259		ug/L		78	60 - 140	10	30
gamma-BHC (Lindane)			0.0333	0.0239		ug/L		72	32 - 140	12	39
gamma-Chlordane			0.0333	0.0222		ug/L		67	45 - 140	13	35
Heptachlor			0.0333	0.0226		ug/L		68	34 - 140	11	43
Heptachlor epoxide			0.0333	0.0217		ug/L		65	37 - 142	11	26
Methoxychlor			0.0333	0.0233		ug/L		70	50 - 135	10	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	93		20 - 154
Tetrachloro-m-xylene (Surr)	82		20 - 139

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-599806/1-A
Matrix: Water
Analysis Batch: 600548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599806

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1221	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1232	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1242	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1248	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1254	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1
Aroclor-1260	ND		0.067		ug/L		07/21/25 05:53	07/22/25 19:50	1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: MB 570-599806/1-A
Matrix: Water
Analysis Batch: 600548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599806

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*103*		*20 - 154*	*07/21/25 05:53*	*07/22/25 19:50*	*1*
Tetrachloro-m-xylene (Surr)	*58*		*20 - 139*	*07/21/25 05:53*	*07/22/25 19:50*	*1*

Lab Sample ID: LCS 570-599806/4-A
Matrix: Water
Analysis Batch: 600548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599806

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor-1016	0.133	0.104		ug/L		78	50 - 140
Aroclor-1260	0.133	0.136		ug/L		102	8 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*82*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*63*		*20 - 139*

Lab Sample ID: LCSD 570-599806/5-A
Matrix: Water
Analysis Batch: 600548

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599806

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor-1016	0.133	0.0990		ug/L		74	50 - 140	5	36
Aroclor-1260	0.133	0.182		ug/L		136	8 - 140	29	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*65*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*49*		*20 - 139*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-676092/1-A
Matrix: Water
Analysis Batch: 677202

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 676092

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020	ug/L		07/24/25 23:10	07/28/25 23:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*109*		*46 - 136*	*07/24/25 23:10*	*07/28/25 23:21*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*109*		*46 - 136*	*07/24/25 23:10*	*07/28/25 23:21*	*1*

Lab Sample ID: LCS 410-676092/2-A
Matrix: Water
Analysis Batch: 677202

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 676092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylene Dibromide	0.129	0.140		ug/L		109	60 - 140

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-676092/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677202 — **Prep Batch: 676092**

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*109*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*109*		*46 - 136*

Lab Sample ID: LCSD 410-676092/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677202 — **Prep Batch: 676092**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide			0.129	0.143		ug/L		110	60 - 140	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*112*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*109*		*46 - 136*

Lab Sample ID: 380-161569-1 DU — **Client Sample ID: Well 15 120 Hr Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677202 — **Prep Batch: 676092**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Ethylene Dibromide	ND			ND		ug/L				NC	30

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr)	*127*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr)	*111*		*46 - 136*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-601068/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616060 — **Prep Batch: 601068**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250		ug/L		07/23/25 09:22	08/24/25 21:33	1
Diesel Range Organics [C10-C28]	ND		50		ug/L		07/23/25 09:22	08/24/25 21:33	1
C24-C44	ND		250		ug/L		07/23/25 09:22	08/24/25 21:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*72*		*53 - 151*	*07/23/25 09:22*	*08/24/25 21:33*	*1*

Lab Sample ID: LCS 570-601068/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616060 — **Prep Batch: 601068**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Crude Oil (C7-C44)			4000	5300	*+	ug/L		132	43 - 131		

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 570-601068/4-A
Matrix: Water
Analysis Batch: 616060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601068

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*93*		*53 - 151*

Lab Sample ID: LCSD 570-601068/5-A
Matrix: Water
Analysis Batch: 616060

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 601068

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Crude Oil (C7-C44)			4000	4750		ug/L		119	43 - 131	11	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*92*		*53 - 151*

Method: 8015C - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 410-678317/1-A
Matrix: Water
Analysis Batch: 678449

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 678317

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13		mg/L		07/30/25 12:32	07/30/25 17:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*87*		*10 - 130*	*07/30/25 12:32*	*07/30/25 17:18*	*1*

Lab Sample ID: LCS 410-678317/2-A
Matrix: Water
Analysis Batch: 678449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 678317

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene glycol			99.8	103		mg/L		103	75 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Butanediol	*107*		*10 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-600347/5
Matrix: Water
Analysis Batch: 600347

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10		mg/L			07/22/25 06:22	1
Chloride	ND		1.0		mg/L			07/22/25 06:22	1
Fluoride	ND		0.10		mg/L			07/22/25 06:22	1
Sulfate	ND		1.0		mg/L			07/22/25 06:22	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 570-600347/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	5.16		mg/L		103	90 - 110
Chloride	50.0	49.6		mg/L		99	90 - 110
Fluoride	2.50	2.70		mg/L		108	90 - 110
Sulfate	50.0	48.4		mg/L		97	90 - 110

Lab Sample ID: LCSD 570-600347/7 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	5.17		mg/L		103	90 - 110	0	15
Chloride	50.0	50.0		mg/L		100	90 - 110	1	15
Fluoride	2.50	2.72		mg/L		109	90 - 110	1	15
Sulfate	50.0	48.7		mg/L		97	90 - 110	0	15

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-8408/35 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8408

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			07/25/25 15:12	1

Lab Sample ID: MB 350-8408/36 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8408

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			07/25/25 15:16	1

Lab Sample ID: MB 350-8408/37 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8408

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	ng/L			07/25/25 15:20	1

Lab Sample ID: LCS 350-8408/41 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8408

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.38		ng/L		88	77 - 123

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: LCSD 350-8408/42 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8408

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			5.00	4.44		ng/L		89	77 - 123	1	24

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-8462/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		07/29/25 14:14	07/30/25 16:26	1
Barium	ND		0.50		ug/L		07/29/25 14:14	07/30/25 16:26	1
Cadmium	ND		0.020		ug/L		07/29/25 14:14	07/30/25 16:26	1
Chromium	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:26	1
Copper	ND		0.50		ug/L		07/29/25 14:14	07/30/25 16:26	1
Lead	ND		0.050		ug/L		07/29/25 14:14	07/30/25 16:26	1
Selenium	ND		0.70		ug/L		07/29/25 14:14	07/30/25 16:26	1
Silver	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:26	1
Vanadium	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:26	1
Zinc	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:26	1

Lab Sample ID: MB 350-8462/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70		ug/L		07/29/25 14:14	07/30/25 16:40	1
Barium	ND		0.50		ug/L		07/29/25 14:14	07/30/25 16:40	1
Cadmium	ND		0.020		ug/L		07/29/25 14:14	07/30/25 16:40	1
Chromium	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:40	1
Copper	ND		0.50		ug/L		07/29/25 14:14	07/30/25 16:40	1
Lead	ND		0.050		ug/L		07/29/25 14:14	07/30/25 16:40	1
Selenium	ND		0.70		ug/L		07/29/25 14:14	07/30/25 16:40	1
Silver	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:40	1
Vanadium	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:40	1
Zinc	ND		1.0		ug/L		07/29/25 14:14	07/30/25 16:40	1

Lab Sample ID: LCS 350-8462/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			12.5	12.3		ug/L		98	70 - 130		
Barium			12.5	11.9		ug/L		95	70 - 130		
Cadmium			1.25	1.17		ug/L		94	70 - 130		
Chromium			12.5	12.4		ug/L		99	70 - 130		
Copper			12.5	12.8		ug/L		102	70 - 130		
Lead			2.50	2.30		ug/L		92	70 - 130		
Selenium			12.5	11.0		ug/L		88	70 - 130		
Silver			6.25	6.04		ug/L		97	70 - 130		

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-8462/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vanadium	12.5	11.7		ug/L		94	70 - 130
Zinc	12.5	11.9		ug/L		95	70 - 130

Lab Sample ID: LCSD 350-8462/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	12.1		ug/L		96	70 - 130	2	20
Barium	12.5	11.5		ug/L		92	70 - 130	3	20
Cadmium	1.25	1.20		ug/L		96	70 - 130	2	20
Chromium	12.5	12.5		ug/L		100	70 - 130	1	20
Copper	12.5	11.7		ug/L		94	70 - 130	9	20
Lead	2.50	2.33		ug/L		93	70 - 130	1	20
Selenium	12.5	11.5		ug/L		92	70 - 130	4	20
Silver	6.25	5.88		ug/L		94	70 - 130	3	20
Vanadium	12.5	12.7		ug/L		102	70 - 130	8	20
Zinc	12.5	12.1		ug/L		97	70 - 130	2	20

Lab Sample ID: MB 350-8663/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		5.0	ug/L		08/06/25 00:00	08/06/25 23:04	1
Manganese	ND		0.050	ug/L		08/06/25 00:00	08/06/25 23:04	1

Lab Sample ID: MB 350-8663/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		5.0	ug/L		08/06/25 00:00	08/06/25 23:18	1
Manganese	ND		0.050	ug/L		08/06/25 00:00	08/06/25 23:18	1

Lab Sample ID: LCS 350-8663/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	125	118		ug/L		94	70 - 130
Manganese	12.5	12.1		ug/L		97	70 - 130

Lab Sample ID: LCSD 350-8663/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	125	121		ug/L		97	70 - 130	2	20
Manganese	12.5	12.2		ug/L		98	70 - 130	0	20

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-8770/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		6.0		ug/L		08/11/25 00:00	08/11/25 22:44	1

Lab Sample ID: LCS 350-8770/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			62.5	56.7		ug/L		91	70 - 130		

Lab Sample ID: LCSD 350-8770/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron			62.5	59.5		ug/L		95	70 - 130	5	20

Lab Sample ID: 380-161569-1 MS — **Client Sample ID: Well 15 120 Hr Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	16		62.5	99.6		ug/L		133	50 - 150		

Lab Sample ID: 380-161569-1 MSD — **Client Sample ID: Well 15 120 Hr Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8836 — **Prep Batch: 8770**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	16		62.5	102		ug/L		138	50 - 150	3	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 350-8568/25-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 8764 — **Prep Batch: 8568**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.50		mg/L		08/01/25 15:49	08/08/25 14:32	1
Iron	ND		0.50		mg/L		08/01/25 15:49	08/08/25 14:32	1
Lithium	ND		0.10		mg/L		08/01/25 15:49	08/08/25 14:32	1
Magnesium	ND		0.50		mg/L		08/01/25 15:49	08/08/25 14:32	1
Potassium	ND		3.3		mg/L		08/01/25 15:49	08/08/25 14:32	1
Sodium	ND		0.60		mg/L		08/01/25 15:49	08/08/25 14:32	1
SiO2, Silica	ND		2.3		mg/L		08/01/25 15:49	08/08/25 14:32	1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 350-8568/26-A
Matrix: Water
Analysis Batch: 8764

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 8568

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	20.0	21.9		mg/L		109	80 - 120
Iron	20.0	23.2		mg/L		116	80 - 120
Lithium	1.00	1.03		mg/L		103	80 - 120
Magnesium	20.0	23.2		mg/L		116	80 - 120
Potassium	20.0	21.5		mg/L		107	80 - 120
Sodium	20.0	22.0		mg/L		110	80 - 120
SiO2, Silica	21.4	22.4		mg/L		105	80 - 120

Lab Sample ID: MB 570-607221/1-A
Matrix: Water
Analysis Batch: 607956

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium	ND		0.010	mg/L			08/06/25 14:54	1

Lab Sample ID: LCS 570-607221/2-A
Matrix: Water
Analysis Batch: 607956

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Strontium	0.500	0.507		mg/L		101	80 - 120

Lab Sample ID: LCSD 570-607221/3-A
Matrix: Water
Analysis Batch: 607956

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Strontium	0.500	0.495		mg/L		99	80 - 120	3	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-607199/1-A
Matrix: Water
Analysis Batch: 607416

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0	ug/L			08/05/25 17:27	1

Lab Sample ID: LCS 570-607199/2-A
Matrix: Water
Analysis Batch: 607416

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	80.0	80.9		ug/L		101	80 - 120

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 570-607199/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium	80.0	84.2		ug/L		105	80 - 120	4	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-599629/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601874 — **Prep Batch: 599629**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0	mg/L		07/19/25 17:21	07/24/25 15:57	1

Lab Sample ID: LCS 570-599629/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601874 — **Prep Batch: 599629**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM: Oil and Grease	40.0	31.20		mg/L		78	78 - 114

Lab Sample ID: LCSD 570-599629/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601874 — **Prep Batch: 599629**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease	40.0	32.70		mg/L		82	78 - 114	5	18

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-605732/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	mg/L		08/01/25 12:27	08/04/25 15:19	1

Lab Sample ID: LCS 570-605732/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	5.00	5.24		mg/L		105	90 - 110

Lab Sample ID: LCSD 570-605732/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606746 — **Prep Batch: 605732**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	5.00	5.28		mg/L		106	90 - 110	1	20

Method: 410.4 - COD

Lab Sample ID: MB 570-606240/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L		08/03/25 08:40	08/03/25 08:19	1

Lab Sample ID: LCS 570-606240/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chemical Oxygen Demand			50.0	49.9		mg/L		100	90 - 110		

Lab Sample ID: LCSD 570-606240/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand			50.0	49.9		mg/L		100	90 - 110	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 570-604824/10 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604824

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		5.0		mg/L			07/30/25 14:51	1
Bicarbonate (as CaCO3)	ND		5.0		mg/L			07/30/25 14:51	1
Carbonate (as CaCO3)	ND		5.0		mg/L			07/30/25 14:51	1
Hydroxide (as CaCO3)	ND		5.0		mg/L			07/30/25 14:51	1

Lab Sample ID: LCS 570-604824/8 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604824

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity, Total (As CaCO3)			106	98.4		mg/L		93	78 - 110		

Lab Sample ID: LCSD 570-604824/9 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604824

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)			106	96.6		mg/L		91	78 - 110	2	10

Method: SM 2520B - Salinity

Lab Sample ID: LCS 570-609968/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609968

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Salinity			35.0	36.6		psu		105	95 - 105		

Method: SM 2520B - Salinity (Continued)

Lab Sample ID: LCSD 570-609968/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609968

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Salinity			35.0	36.5		psu		104	95 - 105	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-601216/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601216

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			07/23/25 12:38	1

Lab Sample ID: LCS 570-601216/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601216

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	924		mg/L		92	85 - 110		

Lab Sample ID: LCSD 570-601216/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 601216

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	932		mg/L		93	85 - 110	1	10

Method: SM 5310C - TOC

Lab Sample ID: MB 570-611514/12 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611514

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic	ND		0.50		mg/L			08/13/25 13:17	1

Lab Sample ID: LCS 570-611514/13 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611514

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Carbon, Non-Purgable Organic			5.03	5.00		mg/L		99	85 - 115		

Lab Sample ID: LCSD 570-611514/14 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611514

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic			5.03	5.03		mg/L		100	85 - 115	1	15

Method: SM 5310C - TOC (Continued)

Lab Sample ID: 380-161569-1 MS — **Client Sample ID: Well 15 120 Hr Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611514

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon, Non-Purgable Organic	ND	F1	5.03	ND	F1	mg/L		0	85 - 115

Lab Sample ID: 380-161569-1 MSD — **Client Sample ID: Well 15 120 Hr Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 611514

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic	ND	F1	5.03	ND	F1	mg/L		0	85 - 115	NC	15

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-729202/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	0.1638	U	0.525	0.525	4.00	0.889	pCi/L	07/28/25 07:56	07/29/25 18:20	1

Lab Sample ID: LCSB 160-729202/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Beta	69.5	70.67		7.60	4.00	0.972	pCi/L	102	75 - 125

Lab Sample ID: LCSBD 160-729202/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729584 — **Prep Batch: 729202**

Analyte	Spike Added	LCSBD Result	LCSBD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Gross Beta	69.5	67.86		7.33	4.00	1.01	pCi/L	98	75 - 125	4	25

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-728731/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 731153 — **Prep Batch: 728731**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02632	U	0.189	0.189	1.00	0.226	pCi/L	07/24/25 08:08	08/08/25 20:38	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*30 - 110*	*07/24/25 08:08*	*08/08/25 20:38*	*1*

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-728731/2-A
Matrix: Water
Analysis Batch: 731142

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 728731

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.305		1.24	1.00	0.189	pCi/L	97	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.9*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-728732/1-A
Matrix: Water
Analysis Batch: 731154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 728732

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4304	U	0.380	0.382	1.00	0.602	pCi/L	07/24/25 08:13	08/08/25 11:39	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*30 - 110*	*07/24/25 08:13*	*08/08/25 11:39*	*1*
Y Carrier	*78.1*		*30 - 110*	*07/24/25 08:13*	*08/08/25 11:39*	*1*

Lab Sample ID: LCS 160-728732/2-A
Matrix: Water
Analysis Batch: 731154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 728732

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.18	9.886		1.33	1.00	0.534	pCi/L	108	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.9*		*30 - 110*
Y Carrier	*80.7*		*30 - 110*

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-729588/1-A
Matrix: Water
Analysis Batch: 731434

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 729588

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.06002	U	0.161	0.161	3.00	0.168	pCi/L	07/29/25 14:25	08/11/25 15:15	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*84.9*		*30 - 110*	*07/29/25 14:25*	*08/11/25 15:15*	*1*
Y Carrier	*90.1*		*30 - 110*	*07/29/25 14:25*	*08/11/25 15:15*	*1*

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: LCS 160-729588/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 731434 — **Prep Batch: 729588**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Strontium-90			6.94	6.802		0.771	3.00	0.234	pCi/L	98	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*79.9*		*30 - 110*
Y Carrier	*87.1*		*30 - 110*

Lab Sample ID: LCSD 160-729588/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 731435 — **Prep Batch: 729588**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Strontium-90			6.94	6.274		0.685	3.00	0.148	pCi/L	90	75 - 125	8	25

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Sr Carrier	*84.0*		*30 - 110*
Y Carrier	*95.3*		*30 - 110*

Method: SM7110C - Gross Alpha by Co-Precipitation

Lab Sample ID: MB 160-728987/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729564 — **Prep Batch: 728987**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.3552	U	0.619	0.621	3.00	0.658	pCi/L	07/25/25 10:05	07/29/25 07:35	1

Lab Sample ID: LCS 160-728987/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729564 — **Prep Batch: 728987**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Alpha			39.6	35.56		4.95	3.00	0.484	pCi/L	90	80 - 120		

Method: U-02-RC - Uranium, Method U02

Lab Sample ID: MB 160-728887/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729736 — **Prep Batch: 728887**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Uranium-234	0.09625	U	0.103	0.103	1.00	0.104	pCi/L	07/24/25 13:19	07/30/25 22:03	1
Uranium-235	-0.01057	U	0.0149	0.0150	1.00	0.120	pCi/L	07/24/25 13:19	07/30/25 22:03	1
Uranium-238	0.01836	U	0.0460	0.0460	1.00	0.0916	pCi/L	07/24/25 13:19	07/30/25 22:03	1
Total Uranium	0.1146	U	0.114	0.114	1.00	0.120	pCi/L	07/24/25 13:19	07/30/25 22:03	1

Method: U-02-RC - Uranium, Method U02 (Continued)

Tracer	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Uranium-232	79.5		30 - 110	07/24/25 13:19	07/30/25 22:03	1

Lab Sample ID: LCS 160-728887/2-A
Matrix: Water
Analysis Batch: 729623

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 728887

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Uranium-234			12.7	13.06		1.55	1.00	0.104	pCi/L	103	75 - 125		
Uranium-238			12.9	14.02		1.63	1.00	0.0869	pCi/L	108	75 - 125		

Tracer	LCS %Yield	LCS Qualifier	Limits
Uranium-232	81.2		30 - 110

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

GC/MS VOA

Analysis Batch: 599498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	624.1	
MB 570-599498/5	Method Blank	Total/NA	Water	624.1	
LCS 570-599498/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-599498/3	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 600577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	625.1	
MB 570-600577/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-600577/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-600577/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 602673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	625.1	600577
MB 570-600577/1-A	Method Blank	Total/NA	Water	625.1	600577
LCS 570-600577/2-A	Lab Control Sample	Total/NA	Water	625.1	600577
LCSD 570-600577/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	600577

Prep Batch: 675323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	625.1	
MB 410-675323/1-A	Method Blank	Total/NA	Water	625.1	
LCS 410-675323/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 410-675323/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 676946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-675323/1-A	Method Blank	Total/NA	Water	625.1 SIM	675323
LCS 410-675323/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	675323
LCSD 410-675323/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	675323

Analysis Batch: 677268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	625.1 SIM	675323

GC VOA

Analysis Batch: 603559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	8015B	
MB 570-603559/10	Method Blank	Total/NA	Water	8015B	
LCS 570-603559/1008	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-603559/9	Lab Control Sample Dup	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 599806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	608	

GC Semi VOA (Continued)

Prep Batch: 599806 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-599806/1-A	Method Blank	Total/NA	Water	608	
LCS 570-599806/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 570-599806/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-599806/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 570-599806/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 600548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	608.3	599806
MB 570-599806/1-A	Method Blank	Total/NA	Water	608.3	599806
LCS 570-599806/4-A	Lab Control Sample	Total/NA	Water	608.3	599806
LCSD 570-599806/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	599806

Prep Batch: 601068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	3510C	
MB 570-601068/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-601068/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-601068/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 601222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-599806/1-A	Method Blank	Total/NA	Water	608.3	599806

Analysis Batch: 601461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	608.3	599806

Analysis Batch: 603099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-599806/2-A	Lab Control Sample	Total/NA	Water	608.3	599806
LCSD 570-599806/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	599806

Analysis Batch: 616060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	8015B	601068
MB 570-601068/1-A	Method Blank	Total/NA	Water	8015B	601068
LCS 570-601068/4-A	Lab Control Sample	Total/NA	Water	8015B	601068
LCSD 570-601068/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	601068

Prep Batch: 676092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	8011	
MB 410-676092/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-676092/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-676092/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
380-161569-1 DU	Well 15 120 Hr Dup	Total/NA	Water	8011	

Analysis Batch: 677202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	8011	676092

GC Semi VOA (Continued)

Analysis Batch: 677202 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-676092/1-A	Method Blank	Total/NA	Water	8011	676092
LCS 410-676092/2-A	Lab Control Sample	Total/NA	Water	8011	676092
LCSD 410-676092/3-A	Lab Control Sample Dup	Total/NA	Water	8011	676092
380-161569-1 DU	Well 15 120 Hr Dup	Total/NA	Water	8011	676092

Prep Batch: 678317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	8015 DAI Prep	
MB 410-678317/1-A	Method Blank	Total/NA	Water	8015 DAI Prep	
LCS 410-678317/2-A	Lab Control Sample	Total/NA	Water	8015 DAI Prep	

Analysis Batch: 678449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	8015C	678317
MB 410-678317/1-A	Method Blank	Total/NA	Water	8015C	678317
LCS 410-678317/2-A	Lab Control Sample	Total/NA	Water	8015C	678317

HPLC/IC

Analysis Batch: 600347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	300.0	
380-161569-1 - DL	Well 15 120 Hr Dup	Total/NA	Water	300.0	
MB 570-600347/5	Method Blank	Total/NA	Water	300.0	
LCS 570-600347/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-600347/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Analysis Batch: 8408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	1631E	
MB 350-8408/35	Method Blank	Total/NA	Water	1631E	
MB 350-8408/36	Method Blank	Total/NA	Water	1631E	
MB 350-8408/37	Method Blank	Total/NA	Water	1631E	
LCS 350-8408/41	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-8408/42	Lab Control Sample Dup	Total/NA	Water	1631E	

Prep Batch: 8462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	1640	
MB 350-8462/1-A	Method Blank	Total/NA	Water	1640	
MB 350-8462/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-8462/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8462/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	1640	8462
MB 350-8462/1-A	Method Blank	Total/NA	Water	1640	8462
MB 350-8462/2-A	Method Blank	Total/NA	Water	1640	8462
LCS 350-8462/3-A	Lab Control Sample	Total/NA	Water	1640	8462

Metals (Continued)

Analysis Batch: 8530 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 350-8462/4-A	Lab Control Sample Dup	Total/NA	Water	1640	8462

Prep Batch: 8568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total Recoverable	Water	3005A	
MB 350-8568/25-A	Method Blank	Total Recoverable	Water	3005A	
LCS 350-8568/26-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 8663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	1640	
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	1640	8663
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	8663
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	8663
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	8663
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	8663

Analysis Batch: 8764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total Recoverable	Water	6010D	8568
380-161569-1	Well 15 120 Hr Dup	Total Recoverable	Water	6010D	8568
380-161569-1	Well 15 120 Hr Dup	Total Recoverable	Water	6010D	8568
MB 350-8568/25-A	Method Blank	Total Recoverable	Water	6010D	8568
LCS 350-8568/26-A	Lab Control Sample	Total Recoverable	Water	6010D	8568

Prep Batch: 8770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	1640	
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	
380-161569-1 MS	Well 15 120 Hr Dup	Total/NA	Water	1640	
380-161569-1 MSD	Well 15 120 Hr Dup	Total/NA	Water	1640	

Analysis Batch: 8836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	1640	8770
MB 350-8770/1-A	Method Blank	Total/NA	Water	1640	8770
LCS 350-8770/2-A	Lab Control Sample	Total/NA	Water	1640	8770
LCSD 350-8770/3-A	Lab Control Sample Dup	Total/NA	Water	1640	8770
380-161569-1 MS	Well 15 120 Hr Dup	Total/NA	Water	1640	8770
380-161569-1 MSD	Well 15 120 Hr Dup	Total/NA	Water	1640	8770

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Metals

Filtration Batch: 607199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Dissolved	Water	Filtration	
MB 570-607199/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-607199/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-607199/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Filtration Batch: 607221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Dissolved	Water	Filtration	
MB 570-607221/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Analysis Batch: 607416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Dissolved	Water	6020	607199
MB 570-607199/1-A	Method Blank	Dissolved	Water	6020	607199
LCS 570-607199/2-A	Lab Control Sample	Dissolved	Water	6020	607199
LCSD 570-607199/3-A	Lab Control Sample Dup	Dissolved	Water	6020	607199

Analysis Batch: 607956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-607221/1-A	Method Blank	Dissolved	Water	6010D	607221
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	6010D	607221
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	6010D	607221

Analysis Batch: 608021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Dissolved	Water	6010D	607221

General Chemistry

Prep Batch: 599629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	1664A	
MB 570-599629/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-599629/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-599629/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 601216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	SM 2540C	
MB 570-601216/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-601216/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-601216/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Analysis Batch: 601874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	1664A	599629
MB 570-599629/1-A	Method Blank	Total/NA	Water	1664A	599629
LCS 570-599629/2-A	Lab Control Sample	Total/NA	Water	1664A	599629
LCSD 570-599629/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	599629

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

General Chemistry

Analysis Batch: 604824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	SM 2320B	
MB 570-604824/10	Method Blank	Total/NA	Water	SM 2320B	
LCS 570-604824/8	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 570-604824/9	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Prep Batch: 605732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	351.2	
MB 570-605732/3-A	Method Blank	Total/NA	Water	351.2	
LCS 570-605732/4-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-605732/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	

Prep Batch: 606240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	410.4	
MB 570-606240/3-A	Method Blank	Total/NA	Water	410.4	
LCS 570-606240/4-A	Lab Control Sample	Total/NA	Water	410.4	
LCSD 570-606240/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 606279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	410.4	606240
MB 570-606240/3-A	Method Blank	Total/NA	Water	410.4	606240
LCS 570-606240/4-A	Lab Control Sample	Total/NA	Water	410.4	606240
LCSD 570-606240/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	606240

Analysis Batch: 606746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	351.2	605732
MB 570-605732/3-A	Method Blank	Total/NA	Water	351.2	605732
LCS 570-605732/4-A	Lab Control Sample	Total/NA	Water	351.2	605732
LCSD 570-605732/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	605732

Analysis Batch: 609968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	SM 2520B	
LCS 570-609968/3	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 570-609968/4	Lab Control Sample Dup	Total/NA	Water	SM 2520B	

Analysis Batch: 611514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	SM 5310C	
MB 570-611514/12	Method Blank	Total/NA	Water	SM 5310C	
LCS 570-611514/13	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 570-611514/14	Lab Control Sample Dup	Total/NA	Water	SM 5310C	
380-161569-1 MS	Well 15 120 Hr Dup	Total/NA	Water	SM 5310C	
380-161569-1 MSD	Well 15 120 Hr Dup	Total/NA	Water	SM 5310C	

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Rad

Prep Batch: 728731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	PrecSep-21	
MB 160-728731/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-728731/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 728732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	PrecSep_0	
MB 160-728732/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-728732/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 728887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	ExtChrom	
MB 160-728887/1-A	Method Blank	Total/NA	Water	ExtChrom	
LCS 160-728887/2-A	Lab Control Sample	Total/NA	Water	ExtChrom	

Prep Batch: 728987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	Coprecipitation	
MB 160-728987/1-A	Method Blank	Total/NA	Water	Coprecipitation	
LCS 160-728987/2-A	Lab Control Sample	Total/NA	Water	Coprecipitation	

Prep Batch: 729202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	Evaporation	
MB 160-729202/1-A	Method Blank	Total/NA	Water	Evaporation	
LCSB 160-729202/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSBD 160-729202/3-A	Lab Control Sample Dup	Total/NA	Water	Evaporation	

Prep Batch: 729588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-161569-1	Well 15 120 Hr Dup	Total/NA	Water	PrecSep-7	
MB 160-729588/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-729588/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	
LCSD 160-729588/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-7	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Client Sample ID: Well 15 120 Hr Dup

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161569-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	599498	VYF4	EET CAL 4	07/19/25 18:11
Total/NA	Prep	625.1			600577	H1SH	EET CAL 4	07/23/25 09:25
Total/NA	Analysis	625.1		1	602673	J7WE	EET CAL 4	07/26/25 02:31
Total/NA	Prep	625.1			675323	L2FU	ELLE	07/23/25 15:14
Total/NA	Analysis	625.1 SIM		1	677268	SJ89	ELLE	07/28/25 22:36
Total/NA	Analysis	8015B		1	603559	A9VE	EET CAL 4	07/29/25 06:26
Total/NA	Prep	608			599806	H1SH	EET CAL 4	07/21/25 05:53
Total/NA	Analysis	608.3		1	601461	N5Y3	EET CAL 4	07/24/25 16:38
Total/NA	Prep	608			599806	H1SH	EET CAL 4	07/21/25 05:53
Total/NA	Analysis	608.3		1	600548	SP9M	EET CAL 4	07/22/25 18:18
Total/NA	Prep	8011			676092	USL7	ELLE	07/24/25 23:10
Total/NA	Analysis	8011		1	677202	M6UH	ELLE	07/29/25 00:12
Total/NA	Prep	3510C			601068	TVD6	EET CAL 4	07/23/25 09:22
Total/NA	Analysis	8015B		1	616060	H6FE	EET CAL 4	08/24/25 22:39
Total/NA	Prep	8015 DAI Prep			678317	WZ6J	ELLE	07/30/25 12:32
Total/NA	Analysis	8015C		1	678449	LXF2	ELLE	07/30/25 21:05
Total/NA	Analysis	300.0		40	600347	UIP1	EET CAL 4	07/22/25 07:40
Total/NA	Analysis	300.0	DL	500	600347	UIP1	EET CAL 4	07/22/25 08:40
Total/NA	Analysis	1631E		1	8408	AJD	EET SSM	07/25/25 17:30
Total/NA	Prep	1640			8462	V1R	EET SSM	07/29/25 14:15
Total/NA	Analysis	1640		1	8530	V1R	EET SSM	07/30/25 23:30
Total/NA	Prep	1640			8663	V1R	EET SSM	08/06/25 00:00
Total/NA	Analysis	1640		1	8697	CL	EET SSM	08/07/25 02:21
Total/NA	Prep	1640			8770	V1R	EET SSM	08/11/25 00:00
Total/NA	Analysis	1640		1	8836	V1R	EET SSM	08/11/25 23:26
Dissolved	Filtration	Filtration			607221	F4JD	EET CAL 4	08/05/25 12:19
Dissolved	Analysis	6010D		5	608021	P1R	EET CAL 4	08/06/25 15:29
Total Recoverable	Prep	3005A			8568	MCMS	EET SSM	08/01/25 15:49
Total Recoverable	Analysis	6010D		1	8764	JLS	EET SSM	08/08/25 15:17
Total Recoverable	Prep	3005A			8568	MCMS	EET SSM	08/01/25 15:49
Total Recoverable	Analysis	6010D		100	8764	JLS	EET SSM	08/08/25 18:47
Total Recoverable	Prep	3005A			8568	MCMS	EET SSM	08/01/25 15:49
Total Recoverable	Analysis	6010D		4	8764	JLS	EET SSM	08/08/25 21:30
Dissolved	Filtration	Filtration			607199	F4JD	EET CAL 4	08/05/25 12:04
Dissolved	Analysis	6020		20	607416	P1R	EET CAL 4	08/05/25 17:15
Total/NA	Prep	1664A			599629	S7HP	EET CAL 4	07/20/25 11:39
Total/NA	Analysis	1664A		1	601874	LM3A	EET CAL 4	07/24/25 15:57
Total/NA	Prep	351.2			605732	GG0B	EET CAL 4	08/01/25 12:27
Total/NA	Analysis	351.2		1	606746	GG0B	EET CAL 4	08/04/25 15:20
Total/NA	Analysis	410.4		1	606279	TP6R	EET CAL 4	08/03/25 08:20
Total/NA	Prep	410.4			606240	TP6R	EET CAL 4	08/03/25 08:40
Total/NA	Analysis	SM 2320B		1	604824	LNW3	EET CAL 4	07/30/25 16:31
Total/NA	Analysis	SM 2520B		1	609968	GG0B	EET CAL 4	08/11/25 14:18

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Client Sample ID: Well 15 120 Hr Dup

Date Collected: 07/17/25 09:00
Date Received: 07/18/25 09:21

Lab Sample ID: 380-161569-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	601216	S7PH	EET CAL 4	07/23/25 12:38
Total/NA	Analysis	SM 5310C		1	611514	U8XP	EET CAL 4	08/14/25 01:55
Total/NA	Prep	Evaporation			729202	OGC	EET SL	07/28/25 07:56
Total/NA	Analysis	900.0		1	729584	FLC	EET SL	07/29/25 18:20
Total/NA	Prep	PrecSep-21			728731	JTR	EET SL	07/24/25 08:08
Total/NA	Analysis	903.0		1	731142	SWS	EET SL	08/08/25 20:35
Total/NA	Prep	PrecSep_0			728732	JTR	EET SL	07/24/25 08:13
Total/NA	Analysis	904.0		1	731154	SWS	EET SL	08/08/25 11:40
Total/NA	Prep	PrecSep-7			729588	TYB	EET SL	07/29/25 14:25
Total/NA	Analysis	905		1	731435	SWS	EET SL	08/11/25 15:13
Total/NA	Analysis	Ra226_Ra228 Pos		1	731473	FLC	EET SL	08/11/25 14:23
Total/NA	Prep	Coprecipitation			728987	OGC	EET SL	07/25/25 10:05
Total/NA	Analysis	SM7110C		1	729564	FLC	EET SL	07/29/25 07:35
Total/NA	Prep	ExtChrom			728887	CAR	EET SL	07/24/25 13:19
Total/NA	Analysis	U-02-RC		1	729870	CMM	EET SL	07/31/25 09:11

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-07-25
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	08-10-25
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA011	08-11-25
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	07-31-26
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-08-26
Florida	NELAP	E87575	06-30-26
Louisiana (All)	NELAP	03073	07-01-26
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-26
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167-008	07-08-26
US Fish & Wildlife	US Federal Programs	A20571	06-30-26
USDA	US Federal Programs	525-23-4-22573	01-24-28
Washington	State	C788-23a	07-13-26
Wisconsin	State	399133460	08-31-26

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25 *
Connecticut	State	PH-0241	08-14-25
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	08-11-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	08-14-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25 *
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	ELLE
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
608.3	Organochlorine Pesticides in Water	EPA	EET CAL 4
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CAL 4
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
8015C	Glycols- Direct Injection (GC/FID)	SW846	ELLE
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1640	Metals (ICPMS)	EPA	EET SSM
6010D	Metals (ICP)	SW846	EET CAL 4
6010D	Metals (ICP)	SW846	EET SSM
6020	Metals (ICP/MS)	SW846	EET CAL 4
1664A	HEM and SGT-HEM	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
410.4	COD	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EET CAL 4
SM 2520B	Salinity	SM	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
SM 5310C	TOC	SM	EET CAL 4
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
SM7110C	Gross Alpha by Co-Precipitation	SM	EET SL
U-02-RC	Uranium, Method U02	HASL	EET SL
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
3005A	Acid Digestion of Waters for Total Recoverable or Dissolved Metals	SW846	EET SSM
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
410.4	COD	EPA	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	ELLE
8011	Microextraction	SW846	ELLE
8015 DAI Prep	Preparation, Direct Aqueous Injection	SW846	ELLE
Coprecipitation	Preparation, Coprecipitation	None	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
ExtChrom	Preparation, Extraction Chromatography Resin Actinide Separation	None	EET SL
Filtration	Sample Filtration	None	EET CAL 4
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Method	Method Description	Protocol	Laboratory

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

HASL = Health And Safety Laboratory

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-161569-1
SDG: Well 15 120 Hr Dup

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-161569-1	Well 15 120 Hr Dup	Water	07/17/25 09:00	07/18/25 09:21	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808.284.3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300, SM2520B, SM4500_SiO2 Br, Cl, F, SO4, Si, Salinity, Alkalinity	351.2- Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900.0 Gross Beta Only	903.0 Ra226, 905_Sr90	904.0 - Radium-228	Ra226_228GFPC_P - Local Method	1640 - dissolved Metals (15) Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Sr, Ag, U, V, Zn	1631E - Dissolved Mercury, Total	6010D - Dissolved Metals (6) Ca, Fe, Li, Mg, K, Na	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	S	S	S	D	D	D	D	N	D	A	D		
~~Well 15 120 Hr~~	~~7/17/2025~~		~~G~~	~~Saltwater~~			~~2~~	~~1~~	~~1~~	~~3~~	~~1~~	~~1~~	~~2~~	~~1~~	~~0~~	~~1~~	~~1~~	~~1~~	34	~~Samples not field filtered. Please filter in lab as necessary~~
Well 15 120 Hr Dup	7/17/2025	9:00	G	Saltwater			2	1	1	3	1	1	2	1	0	1	1	1	34	Samples not field filtered Please filter in lab as necessary

380-161569 COC

Possible Hazard Identification
[ ] X Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment: FEDEX Priority Overnight 3911 5489 0337			
Relinquished by:	Date/Time: 7/17/25 12:00	Company: INTERA Inc	Received by:	Date/Time: 07/18/25 ~~09:25~~ 09:21	Company: EEAP	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by	Date/Time:	Company	Received by:	Date/Time	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 751A 2.8°-0.0°=2.8° REAL-PROBE

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808.284 3204	E-Mail: Maria Lopez@et.eurofinus com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID:			Job #:

Address: 74 Kihapai St
City: Kailua
State Zip: HI 96734
Phone: 808 284 3204
Email: jordanm@intera com
Project Name: Kalaeloa Desalination
Site

Due Date Requested:
TAT Requested (days): Standard
Compliance Project: Δ Yes Δ No
PO #:
WO #:
Project #:
SSOW#:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	625.1 SVOCs	8015B/8260D_Hawaii GRO C4-12	8015B_Hawaii DRO C8-24, ORO C24-44	1664A Oil and Grease	608.3 Organochlorine Pesticides	608 3 PCBs	625.1 Sim 1,4-dioxane	8011 Ethylene Dibromide	8015C Ethylene Glycol	U02 Isotopic Uranium	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	A	N	A	N	S	N	N	N	A	N	D		
~~Well 15 120 Hr~~	~~7/17/2025~~		~~G~~	~~Saltwater~~			~~1~~	~~3~~	~~1~~	~~2~~	~~2~~	~~1~~	~~1~~	~~1~~	~~2~~	~~2~~	~~2~~	~~1~~	~~34~~	Samples not field filtered Please filter in lab as necessary
Well 15 120 Hr Dup	7/17/2025	9:00	G	Saltwater			1	3	1	2	2	1	1	1	2	2	2	1	34	Samples not field filtered Please filter in lab as necessary

Preservation Codes:
A HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M Hexane
N - None
O - AsNaO2
P - Na2O4S
Q Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by | Date | Time | Method of Shipment: FEDEX Priority Overnight 3911 5489 0337

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7/17/25 12.00	INTERA Inc	[signature]	07/18/25 09:21	EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time.	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: (757N) 2.8°-0.0°=2.8° REAL-FROZEN

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-233102.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-161569-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/14/2025			Preservation Codes: -
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			Other: N/A
Site: N/A	SSOW#: N/A			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM7110C/COPRECIPGross Alpha by Co-Precip	900.0/EvaporationGross Beta Only	903.0/PrecSep_21Radium-226	904.0/PrecSep_0Radium-228	Ra226_228GFPC_P	905_Sr90/PrecSep_7Strontium-90	U02/ExtChrom_ActinStandard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Well 15 120 Hr Dup (380-161569-1)	7/17/25	09:00 Hawaiian	G	Water			X	X	X	X	X	X	X	6	High TDS sample, dilute accordingly, SDWA. High TDS sample, dilute

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Gallego	7.21.25 8:18		Cheyenne Forrest	0815 JUL 23 2025	
			Cheyenne Forrest		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-233100.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-161569-1
Address: 5755 8th Street East, ,	Due Date Requested: 8/14/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			

Analysis Requested

Therm. ID: SC03 Cust. Seal: Y / N
Uncorr./Corr. Temp: 0.4 / 0.3 °C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue / Dry / Wet / None
Label Ver.: _____ Packing: B

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total	6010D/3005A(MOD) Custom List 4: 6-7 Metals	Total Number of	Special Instructions/Note:
			Preservation Code:							N/A	
Well 15 120 Hr Dup (380-161569-1)	7/17/25	09:00 Hawaiian	G	Water			X	X	X	3	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Gwilson	7.21.25 8:08			7/22/25 9:32	ET
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-233095.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-161569-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/14/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 15 120 Hr Dup (380-161569-1)	7/17/25	09:00 Hawaiian	G	Water			X	X	X		High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: Guillermo V	Date/Time: 7/25 1:58	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 7/23/25 0930	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.1-C1.1		

Loc: 380
161569

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-232793.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-161569-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/14/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	608.3_PCB/608_Prep_PCBRoutine PCB Aroclor List	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	Nitrogen,Total/Total Nitrogen	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2620_BSalinity	8015B_GRO/5030C(MOD) Gasoline Range Organics	8015B_DRO/3510C_LVIDRO (C10-C28)	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
Well 15 120 Hr Dup (380-161569-1)	7/17/25	09:00 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		High TDS sample, dilute accordingly

380-161569 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 7/19/25 1000	Company	Received by:	Date/Time: 7/19/25 1000	Company WP
Relinquished by:	Date/Time: 7/18/25 1108	Company WP	Received by:	Date/Time: 7/19/25 1108	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.5/2.5 1092

Ver: 10/10/2024 8/25/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-232793.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-161569-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/14/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3510C_LVI(MOD) Crude Oil (C7-C44)	2540C_CalcdTotal Dissolved Solids (TDS)	5310CTOC, Standard analysis, 3 replicates	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 15 120 Hr Dup (380-161569-1)	7/17/25	09:00 Hawaiian	G	Water			X	X	X	19	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	7/19/25 1600	[illegible]	[signature]	7/19/25 1000	WP
Relinquished by: [signature]	Date/Time: 7/19/25 1108	Company WP	Received by: [signature]	Date/Time: 7/19/25 1108	Company [illegible]
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

eurofins | Environment Testing

Date:	7/22/2025
End Time:	14:48
KI Paper Lot:	na
Analyst:	[illegible]
Pipette:	MD

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0 2N)	88441
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-161569-N-1	A	Y	5 2	ND

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Date:	7/22/2025
End Time:	19:43
pH Paper Lot:	~~HC441704~~ HC445721
Analyst:	JS
Pipette:	MP_TM046

JS 7/22/25

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	83146
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-161569-M-1	>2	<2	A	0.725	

JS 7/22/25

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161569-1
SDG Number: Well 15 120 Hr Dup

Login Number: 161569
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161569-1
SDG Number: Well 15 120 Hr Dup

Login Number: 161569
List Number: 2
Creator: Nguyen, Jenny

List Source: Eurofins Calscience
List Creation: 07/19/25 12:38 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161569-1
SDG Number: Well 15 120 Hr Dup

Login Number: 161569
List Number: 6
Creator: Le, Sunny

List Source: Eurofins Calscience
List Creation: 08/05/25 09:57 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161569-1
SDG Number: Well 15 120 Hr Dup

Login Number: 161569
List Number: 4
Creator: Ballard, Megan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 07/23/25 12:06 PM

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161569-1
SDG Number: Well 15 120 Hr Dup

Login Number: 161569
List Number: 3
Creator: Miller, Darren R

List Source: Eurofins Seattle Specialty Metals
List Creation: 07/22/25 03:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-161569-1
SDG Number: Well 15 120 Hr Dup

Login Number: 161569
List Number: 5
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 07/23/25 11:33 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Docusign Envelope ID: 87D939AD-9CF9-4528-91D8-0C9CCA99D334

ICA Labs Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.icalabs.com

Jordan Moniuszko
INTERA
74 Kihapai St
Kailua, HI 96734
USA

Dear Jordan,

Shipment sent for radiocarbon (^{14}C) dating analysis and arrived at ICA Labs on August 13th, 2025. Each of the samples was processed through the 3 main steps required to prepare a sample for AMS analysis: Pretreatment, Combustion or Acid Digestion, and Reduction (Graphitization). Accelerator Mass Spectrometry was used for radiocarbon analysis, and results are provided in this Report.

Radiocarbon results were provided on August 25th, but the report did not include the $\Delta^{13}C$ results. This report includes the $\Delta^{13}C$ results.

The first section of the Report includes the results for any samples submitted and for the Quality Control samples analyzed in parallel with the sample. Quality Control results in this report met acceptance criteria. The later part of the Report includes a Summary of Methods that provides some context on protocols used.

The Team at ICA Labs appreciates you for trusting us with your samples. Please reach out if there are any questions.

Sincerely,

Signed by:
Ricky Diaz
8ACC8E1173CD446...

9/24/2025

Docusign Envelope ID: 87D939AD-9CF9-4528-91D8-0C9CCA99D334

ICA Labs Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.icalabs.com

^{14}C AMS Report

Submitter Name: Jordan Moniuszko
Company Name: INTERA
Address: 74 Kihapai St
Kailua, HI 96734
USA
Date Received: August 13th, 2025
Date Reported: August 25th, 2025 for ^{14}C and September 24th for ^{13}C
Project #: Kalaeloa Desalination

ICA ID	Submitter ID	Material Type	Pretreatment	δ^{13}C (o/oo)	Conventional Age	Calibrated Age
14C-10283	Well 15 120 Hr	Water	DIC	-16.01	**2800 +/- 30 BP**	**Cal 1050 - 1030 BC (1.6%) Cal 1020 - 890 BC (88.2%) Cal 880 - 840 BC (5.7%)**
14C-10284	Well 15 120 Hr Dup	Water	DIC	-18.63	**2630 +/- 30 BP**	**Cal 890 - 880 BC (0.7%) Cal 840 - 770 BC (94.8%)**
14C-10285	MW1	Water	DIC	-14.13	**5360 +/- 40 BP**	**Cal 4330 - 4150 BC (65.5%) Cal 4140 - 4050 BC (29.9%)**
14C-10286	MW2	Water	DIC	-14.23	**5170 +/- 30 BP**	**Cal 4050 - 3940 BC (94.7%) Cal 3840 - 3820 BC (0.8%)**
14C-10287	Well 14 Step	Water	DIC	-18.22	**2520 +/- 30 BP**	**Cal 790 - 720 BC (25.7%) Cal 710 - 540 BC (69.8%)**
14C-10288	Well 14 120 Hr	Water	DIC	-16.26	**2530 +/- 30 BP**	**Cal 800 - 730 BC (30.3%) Cal 700 - 540 BC (65.1%)**
14C-10289	Well 14 EB	Water	DIC	-25.82	**730 +/- 30 BP**	**Cal 1220 - 1310 AD (92.4%) Cal 1360 - 1380 AD (3.1%)**
14C-10290	Well 13 Step	Water	DIC	-17.62	**2820 +/- 30 BP**	**Cal 1110 - 1090 BC (0.5%) Cal 1080 - 890 BC (94.9%)**
14C-10291	Well 13 Step Dup	Water	DIC	-17.36	**2700 +/- 30 BP**	**Cal 910 - 800 BC**

Quality Control Results

QC #	Quality Control Material	Acceptance Criteria	Measured Value
Wheel QC 1	**IAEA C7**	49.53 +/- 0.70 pMC	49.30 +/- 0.20 pMC
Wheel QC 2	**IAEA C5**	23.05 +/- 0.70 pMC	23.27 +/- 0.10 pMC
All Quality Control Analyses Pass Acceptance Criteria			

Summary of Methods

Pretreatment

- **Acid/Alkali/Acid (AAA):** Also known as ABA (Acid/Base/Acid), this pretreatment protocol is applied to most organic material types. A hot hydrochloric acid (HCl) wash is applied to remove any carbonates (if present), and then hot sodium hydroxide (NaOH) washes is performed for removal of secondary humic acids. A final hot HCl wash is applied prior to rinsing the sample solution neutral, then dried to prepare for combustion.
- **Acid Etched (AE):** This pretreatment protocol is applied to most carbonates, such as shells and corals. Material is first rinsed with water and mechanically cleaned to remove any debris if present, then exposed to a dilute HCl wash. The sample solution is then rinsed neutral and dried to prepare for acid digestion.
- **Acid Only (AO):** This pretreatment protocol is typically applied to organic sediments. Sample is mechanically sieved, then a HCl wash is applied to remove any carbonates that may be present. The sample solution is then rinsed neutral and dried to prepare for combustion.
- **Collagen Extraction With Acid/Alkali/Acid (Col-AAA)**: This protocol is applied to bones. The sample surface is cleaned, then the AAA process & extraction the protein component of the bone (collagen) through the removal of the mineral portion of the bone (calcium hydroxyapatite) is performed. The treated collagen extracted is rinsed neutral and dried to prepare for combustion.
- **Carbonate Extraction:** This protocol is typically applied to cremated bones. These bones have been heated to temperatures above 600°C and as a result, the bioapatite forms larger and better structure crystals that are typically not susceptible to contamination over time. After cleaning the external surface of the sample, it is treated with NaClO for 48 hours, then CH_3COOH for 24 hours. The sample is then rinsed neutral and dried to prepare for acid digestion.
- **Dissolved Inorganic Carbon (DIC)**: Strontium Chloride (SrCl) is added to ~250 mL of water under slightly basic conditions. Over time, carbon in the water precipitates as $SrCO_3$. The precipitate is dried and prepared for acid digestion.

Combustion

For each sample, some of it is weighed and placed in quartz tube. The tube containing the sample is subsequently brought to vacuum, then an oxygen source is introduced into the tube. The tube is then sealed and exposed to heat (800°C) for at least 30 minutes to drive the reaction, which causes the carbon in the sample to be converted to CO_2 gas. The other product in the reaction is H_2O. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Acid Digestion

Carbonate samples go through the acid digestion process after pretreatment. This involves crushing some of the pretreated material, then placing it in a tube that is subsequently evacuated. The acid digestion reaction is then started by adding H_3PO_4 to the sample in the vacuum environment. This reaction releases the carbon in the sample as CO_2 gas. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Reduction (Graphitization)

The evolved CO_2 is distilled through a cold (-78°C) solid CO_2/C_3H_8O slush to remove water as it is transferred under a vacuum to a reduction reaction vessel via a cryogenic pump using liquid N_2 (-195°C). The reduction reaction vessel contains Co as the catalyst and $Mg(ClO_4)_2$ as a drying agent. Hydrogen gas is added to the reduction reaction vessel and then heat is introduced (550°C) to drive the reaction. An unbalanced summary of the 2-step reduction reaction is as follows:

$$CO_2 + H_2 \xrightarrow[550^{o}C,\ Co]{\blacktriangle} CO + H_2O$$

$$CO + H_2 \xrightarrow[550^{o}C,\ Co]{\blacktriangle} C_{(graphite)} + H_2O$$

Accelerator Mass Spectrometry (AMS) Analysis

The graphite obtained for each sample is pressed into an aluminum cathode, and then placed into a sample wheel that is loaded into one of the ion sources in the AMS. The sample wheel includes QC samples of known values in addition to unknowns so that accuracy & precision can be verified. Percent Modern Carbon and a Conventional Age is then determined for each sample.

- AMS = Accelerator Mass Spectrometry.
- pMC = Percent Modern Carbon.
- IAEA = International Atomic Energy Agency.
- Calibrated ages are attained using IntCal20 or Bomb 21 NH1.
- Unless otherwise stated, the error reported is two sigma standard deviation (95.4%).
- Conventional ages are given in BP (BP=Before Present, 1950 AD) or F14C when samples are post-1950, and have been corrected for natural isotope fractionation.

FQ Labs

3170 Ualena Street, Unit A
Honolulu, HI 96819
Phone: 808-839-9444, Fax: 808-839-9744

Intera Incorporated
74 Kihapai Street
Kailua, HI, 96734
Attn: Kevin Gooding
Project Name: Kalaeloa Desalination

CERTIFICATE OF ANALYSIS

Received: 07/17/2025 @ 12:45 PM
Completed: 07/22/2025 @ 1:07 PM
Project Number: 250717-4007-004
Temperature: 3.4 °C
Client Project No: LSBRG.Kalaelo

Sample ID: 250717-4007-004-01 | **Water Sample- Lab # 8 Well 15 120 Hr** | **Sampled: 7/17/2025 @ 9:00 AM** | **Sampler: Jordan Moniuszko/Eva Kakone**

Analysis	Results	Units	MDL	Test Method	Analyzed		By
Biochemical Oxygen Demand	2.8	mg/L	1.0	SM 5210 B	07/17/2025	4:44 PM	GK
Nitrogen, Nitrate	<0.008	mg/L	0.008	EPA 353.1, Rev2.0	07/17/2025	3:59 PM	GK
Nitrogen, Nitrite	<0.004	mg/L	0.004	EPA 353.2,Rev2.0	07/17/2025	2:00 PM	GK
Chromium VI	<0.001	mg/L	0.001	SM 3500-Cr-D	07/17/2025	2:03 PM	EA
Phosphorus, Total	0.044	mg/L	0.003	EPA 365.1, Rev2.0	07/22/2025	11:42 AM	GK

Sample ID: 250717-4007-004-02 | **Water Sample- Lab # 9 Well 15 120 Hr Dup** | **Sampled: 7/17/2025 @ 9:00 AM** | **Sampler: Jordan Moniuszko/Eva Kakone**

Analysis	Results	Units	MDL	Test Method	Analyzed		By
Biochemical Oxygen Demand	6.2	mg/L	1.0	SM 5210 B	07/17/2025	4:44 PM	GK
Nitrogen, Nitrate	<0.008	mg/L	0.008	EPA 353.1, Rev2.0	07/17/2025	3:59 PM	GK
Nitrogen, Nitrite	<0.004	mg/L	0.004	EPA 353.2,Rev2.0	07/17/2025	2:00 PM	GK
Chromium VI	<0.001	mg/L	0.001	SM 3500-Cr-D	07/17/2025	2:03 PM	EA
Phosphorus, Total	0.052	mg/L	0.003	EPA 365.1, Rev2.0	07/22/2025	11:42 AM	GK

Approved By: Gregg Kawamoto
Wednesday, July 23, 2025

FQLabs
Analysts of Excellence
3170-A Ualena Street • Honolulu, HI 96819 • Tel: (808) 839-9444 • Fax: (808) 839-9744 • fql@fqlab.com

FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

Intera Incorporated
74 Kihapai Street
Kailua, HI 96734
Attn: Jordan Moniuszko
Project Name: Kalaeloa Desalination

Received: 7/17/2025
Completed: 7/22/2025
Project Number: 250717-4007-004

Analysis	QC Test	Results	MDL	Units	Spike Level	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
Glucose-Glutamic Acid Check (GGA) 7/17/2025											
BOD	Blank	<1.0	1.00	mg/L	-	-	-	-	-	-	
BOD	GGA	186	1.00	mg/L	198±30.5	-	-	-	-	-	Pass
The results are within the control limit range of 198 ± 30.5											
Nitrate	Blank	<0.008	0.008	mg/L	-	-	-	-	-	-	
Nitrate	LCS	0.51	0.008	mg/L	0.50	-	103	90-110%	-	-	
Nitrate	Duplicate	0.17	0.008	mg/L	-	0.16	-	-	6.17	20%	
Nitrate	Matrix Spike	1.06	0.008	mg/L	1.00	0.08	97.8	90-110%	-	-	
Nitrite	Blank	<0.004	0.004	mg/L	-	-	-	-	-	-	
Nitrite	LCS	0.49	0.004	mg/L	0.50	-	98.4	90-110%	-	-	
Nitrite	Duplicate	0.03	0.004	mg/L	-	0.03	-	-	0.00	20%	
Nitrite	Matrix Spike	0.53	0.004	mg/L	0.50	0.02	104	90-110%	-	-	
Chromium VI	Blank	<0.001	0.001	mg/L	-	.	-	-	-	-	
Chromium VI	LCS	1.01	0.001	mg/L	1.00	-	101	85-115%	-	-	
Chromium VI	Duplicate	0.00	0.001	mg/L	-	0.00	-	-	11.8	20%	
Chromium VI	Matrix Spike	0.50	0.001	mg/L	0.50	0.00	101	85-115%	-	-	
Batch Prepared and Analyzed 7/22/2025											
Total Phos	Blank	<0.003	0.003	mg/L	-	-	-	-	-	-	
Total Phos	LCS	0.98	0.003	mg/L	1.00	-	97.5	90-110%	-	-	
Total Phos	Duplicate	0.04	0.003	mg/L	-	0.05	-	-	16.9	20%	
Total Phos	Matrix Spike	4.93	0.003	mg/L	5.00	0.02	98.1	90-110%	-	-	

Notes:

B1	Target Analyte detected in method blank was above the method detection limit.
D8	The duplicate exceeded the acceptance limit due to sample matrix effects.
dry	Sample results reported on a dry weight basis.
LCS	Laboratory Control Standard
M8	The matrix spike was below the acceptance limits. See Blank Spike (LFB)
M9	The matrix spike was above the acceptance limits. See Blank Spike (LFB)
MDL	Method Detection Levels are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
ND	Not Detected
NR	Not Reported
R8	The LCS recovery was below the acceptance limits.
R9	The LCS recovery was above the acceptance limits.
REC	Recovery
RPD	Relative Percent Difference

FQLabs

3170-A Ualena Street
Honolulu, HI 96819

Invoice

Date	Invoice #
7/23/2025	33798

Bill To
Intera Incorporated 74 Kihapai St. Kailua, HI 96734 Attn:Jordan Moniuszko

P.O. No.	Terms	Contract #	Lab #
	Due on receipt		8-9

Description	Qty	Rate	Amount
Project Name: Kalaeloa Disalination Project NO: LSBRG.Kalaelo			
Nitrogen, Nitrate EPA 353.2, Rev2.0**	2	140.00	280.00T
Nitrogen, Nitrite (water)**	2	130.00	260.00T
Phosphate, total	2	73.37	146.74T
BOD-5	2	99.00	198.00T
Hexavalent chromium (CrVI) Dissolved, SM 3500-Cr B**	2	205.00	410.00T
**RUSH Fee for Short Holding Time Sample Received on 07/17/25			

Make Check Payable To:FQLabs

Subtotal	$1,294.74
Sales Tax (4.712%)	$61.01
Total	$1,355.75

FQLabs
3170-A Ualena St.
Honolulu, HI 96819
Tel: 808-839-9444 Fax: 808-839-9744 website: www.fqlabs.com

CHAIN OF CUSTODY AND ANALYSIS REQUEST

DATE: _____ PAGE _____ OF _____
CUSTOMER NO. _____ LAB NO. _____

CLIENT NAME: Intera Incorporated EMAIL: jmoniuszko@intera.com

ADDRESS: 74 Kihapai Street Kailua, HI 96734

PROJECT NAME: Kalaeloa Desalination PROJECT NO: LSBRG.Kalaelo P.O. NO:

PROJECT MANAGER: Kevin Gooding PHONE NO: 808.284.3204 FAX NO:

SAMPLER NAME: (Printed) Jordan Moniuszko / Eva Kakune (Signature) Eva K

TAT (Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N= Normal

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other:

ANALYSES REQUESTED

AIRBILL NO:

COOLER NO:

SAMPLE TEMP: 3.4C

REMARKS:

LAB USE ONLY SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX WATER	MATRIX OTHER	CONTAINER #	CONTAINER TYPE	GRAB/ COMP	5210B- BOD-5	353.2 Nitrogen, Nitrate	353.1 Nitrogen, Nitrite	365.1 Total Phosphorus	7196A Hexavalent Chromiu			SAMPLE CONDITION/ COMMENTS:
8	7/17/25	9:00	Well 15 120 Hr	✔		3	P	G	✔	✔	✔	✔	✔			No preservatives
9	7/17/25	9:00	Well 15 120 Hr Dup	✔		3	P	G	✔	✔	✔	✔	✔			added

Relinquished By: (Signature and Printed Name) Eva Kakune Date: 7/17/25 Time: 12:42
Received By: (Signature and Printed Name) [illegible] Date: 7/17/25 Time: 1245

Relinquished By: (Signature and Printed Name) Date: Time:
Received By: (Signature and Printed Name) Date: Time:

Is this a compliance drinking water sample? Yes (No)

Sign and Print Eva Kakune Date: 7/17/25 Time: 12:42

SPECIAL INSTRUCTIONS:

SAMPLE DISPOSITION:

1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless additional storage time is requested.
3. Storage time requested: _____ days.

By _____ Date _____

Oxygen, Hydrogen isotopic analysis of waters
Instrumentation: Picarro L2130-i High Precision 18O and D Isotopic Wat

	Average		Standard Deviation	
Sample Name	**$\delta^{18}O$ (‰)**	**$\delta^{2}H$ (‰)**	**$\delta^{18}O$**	**$\delta^{2}H$**
Well 14 EB 1	***-9.0***	***-60.0***	***0.03***	***0.06***
Well 14 EB 2	***-9.0***	***-59.7***	***0.03***	***0.12***
MW 2 1	***-3.7***	***-19.5***	***0.03***	***0.29***
MW 2 2	***-3.7***	***-19.1***	***0.04***	***0.19***
MW 1 1	***-3.2***	***-15.8***	***0.08***	***0.37***
MW 1 2	***-3.1***	***-15.5***	***0.02***	***0.1***
Well 15 Step 1	***0.2***	***1.9***	***0.03***	***0.16***
Well 15 120Hr 1	***0.2***	***1.8***	***0.04***	***0.18***
Well 15 120Hr 2	***0.1***	***1.4***	***0.06***	***0.16***
Well 15 120Hr Dup 1	***0.1***	***1.6***	***0.11***	***0.34***
Well 14 Step 1	***0.4***	***3.7***	***0.08***	***0.23***
Well 14 Step 2	***0.3***	***3.4***	***0.02***	***0.10***

Comments:
Isotopic corrections are calculated using standards prepared by our labo
All samples were analyzed in at least triplicate, and isotopic values are re
The software Chemcorrect was used to flag for organic contamination; a
otherwise noted.

er Analyzer via A0211 High Precision Vaporizer and Picarro A0325 Autosampler

notes

Evian Water as a check standard:

	δ18O	δ2H
Accuracy	**0.05**	**-0.32**
Precision	**0.14**	**0.4**

ratory and run along with your samples.
eported in δ-notation relative to V-SMOW.
ll samples clear of contamination unless

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 8/12/2025 6:44:10 PM

JOB DESCRIPTION

Kalealoa Desalination Project
Well 15 Step

JOB NUMBER

380-159048-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

Generated
8/12/2025 6:44:10 PM

Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 9
Client Sample Results 10
Surrogate Summary 18
Tracer Carrier Summary 22
QC Sample Results 23
QC Association Summary 52
Lab Chronicle 59
Certification Summary 61
Method Summary 64
Sample Summary 66
Chain of Custody 67
Field Data Sheets 74
Receipt Checklists 76

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.

GC/MS VOA TICs

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-159048-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 7/8/2025 10:04 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.7°C.

Receipt Exceptions
The number of containers for the following sample did not match the information listed on the workshare Chain-of-Custody (COC): Well 15 Step (380-159048-1). Calscience received 18 containers, while the COC lists 14.

GC/MS VOA
Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-596358. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: The following sample was received outside of holding time: Well 15 Step (380-159048-1).

Method 624.1: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following sample was received preserved with hydrochloric acid: Well 15 Step (380-159048-1). The requested target analyte list contains 2-Chloroethyl vinyl ether which is an acid-labile compound that degrades in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-594598. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Method 625.1

Method 625.1: The laboratory control sample (LCS) for preparation batch 570-594598 and analytical batch 570-597280 recovered outside acceptance limits for multiple analytes. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the data have been reported.

Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-594598 and analytical batch 570-597280 recovered outside control limits for the multiple analytes.

Method 625.1: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 570-594598 and analytical batch 570-597280 recovered outside control limits for the following analyte(s): Aniline, Benzidine and Pyridine. Aniline, Benzidine and Pyridine have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015B_DRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-594846. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method: 8015B_DRO

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015C_DAI_GLY: The continuing calibration verification (CCV) associated with batch 410-670988 recovered outside acceptance criteria, low biased, for 1,4-Butanediol and Ethylene glycol. Due to the sample matrix and the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
Method 608.3_Pest: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-594401 and analytical batch 570-597442 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 608.3_Pest: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 570-594401 and analytical batch 570-597442 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D - Dissolved: The following sample was diluted due to the abundance of non-target analytes: Well 15 Step (380-159048-1). Elevated reporting limits (RLs) are provided.

Method 6010D - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: Well 15 Step (380-159048-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6020 - Dissolved: The following sample was not filtered within 15 minutes of sample collection as required by the method: Well 15 Step (380-159048-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 6020 - Dissolved: The following sample was diluted due to the nature of the sample matrix: Well 15 Step (380-159048-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-597260. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
EPA 1664 A/B.

Method 410.4_LL: The following sample was analyzed outside of analytical holding time due to sample scheduling error.: Well 15 Step (380-159048-1).

Job ID: 380-159048-1 (Continued) Eurofins Eaton Analytical Pomona

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 900.0: Gross Alpha Beta Batch 727048

The detection goal was not met for the following sample due to a reduction of the sample size attributed to high residual mass: Well 15 Step (380-159048-1). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium-228 batch 726868
The detection goal was not met for the following sample due to the reduced sample volume in prep attributed to the presence of matrix interferences: Well 15 Step (380-159048-1). Analytical results are reported with the detection limit achieved.

Method 905_Sr90: Strontium-90 Prep Batch 160-727806

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Due to matrix interference observed in the initial prep of the sample, the sample was prepared at a reduced aliquot, cooked dry, muffled in an oven, and digested to reduce organic interference before the procedure for water samples was continued.

Method SM7110C: GAB Prep Batch 160-277051

Insufficient sample volume was available to perform a sample duplicate for the following samples: Well 15 Step (380-159048-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Client Sample ID: Well 15 Step

Lab Sample ID: 380-159048-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bromide	54		2.0		mg/L	20		300.0	Total/NA
Sulfate - DL	2800		100		mg/L	100		300.0	Total/NA
Chloride - DL2	19000		1000		mg/L	1000		300.0	Total/NA
Mercury	2.5		0.50		ng/L	1		1631E	Dissolved
Cadmium	0.036		0.020		ug/L	1		1640	Dissolved
Copper	0.59		0.50		ug/L	1		1640	Dissolved
Zinc	3.8		1.0		ug/L	1		1640	Dissolved
Barium	26		0.50		ug/L	1		1640	Dissolved
Iron	16		5.0		ug/L	1		1640	Dissolved
Manganese	3.0		0.050		ug/L	1		1640	Dissolved
Vanadium	2.1		1.0		ug/L	1		1640	Dissolved
Calcium	420		2.5		mg/L	5		6010D	Dissolved
Magnesium	1200		2.5		mg/L	5		6010D	Dissolved
Potassium	400		17		mg/L	5		6010D	Dissolved
Sodium	11000		60		mg/L	100		6010D	Dissolved
SiO2, Silica	25		2.3		mg/L	1		6010D	Dissolved
Strontium	8.0		0.050		mg/L	5		6010D	Dissolved
Chemical Oxygen Demand	38	H	10		mg/L	1		410.4	Total/NA
Alkalinity, Total (As CaCO3)	95		5.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate (as CaCO3)	95		5.0		mg/L	1		SM 2320B	Total/NA
Salinity	34		2.0		psu	1		SM 2520B	Total/NA
Total Dissolved Solids	35000		1000		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Well 15 Step

Lab Sample ID: 380-159048-1

Date Collected: 07/03/25 10:13

Matrix: Water

Date Received: 07/08/25 10:04

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,1,1-Trichloroethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,1,2,2-Tetrachloroethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	H H3	10		ug/L			07/12/25 16:35	1
1,1,2-Trichloroethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,1-Dichloroethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,1-Dichloroethene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,1-Dichloropropene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,2,3-Trichlorobenzene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,2,3-Trichloropropane	ND	H H3	5.0		ug/L			07/12/25 16:35	1
1,2,4-Trichlorobenzene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,2,4-Trimethylbenzene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,2-Dibromo-3-Chloropropane	ND	H H3	5.0		ug/L			07/12/25 16:35	1
1,2-Dibromoethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,2-Dichlorobenzene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,2-Dichloroethane	ND	H H3	0.50		ug/L			07/12/25 16:35	1
1,2-Dichloroethene, Total	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,2-Dichloropropane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,3,5-Trimethylbenzene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,3-Dichlorobenzene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,3-Dichloropropane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
1,3-Dichloropropene, Total	ND	H H3	0.50		ug/L			07/12/25 16:35	1
1,4-Dichlorobenzene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
2,2-Dichloro-1,1,1-trifluoroethane	ND	H H3	10		ug/L			07/12/25 16:35	1
2,2-Dichloropropane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
2-Butanone	ND	H H3	10		ug/L			07/12/25 16:35	1
2-Chloroethyl vinyl ether	ND	H H3	2.0		ug/L			07/12/25 16:35	1
2-Chlorotoluene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
2-Hexanone	ND	H H3	10		ug/L			07/12/25 16:35	1
4-Chlorotoluene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
4-Methyl-2-pentanone	ND	H H3	10		ug/L			07/12/25 16:35	1
Acetone	ND	H H3	12		ug/L			07/12/25 16:35	1
Benzene	ND	H H3	0.50		ug/L			07/12/25 16:35	1
Bromobenzene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
Bromochloromethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
Bromodichloromethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
Bromoform	ND	H H3	1.0		ug/L			07/12/25 16:35	1
Bromomethane	ND	H H3	5.0		ug/L			07/12/25 16:35	1
Carbon disulfide	ND	H H3	10		ug/L			07/12/25 16:35	1
Carbon tetrachloride	ND	H H3	0.50		ug/L			07/12/25 16:35	1
Chlorobenzene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
Chloroethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
Chloroform	ND	H H3	1.0		ug/L			07/12/25 16:35	1
Chloromethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
cis-1,2-Dichloroethene	ND	H H3	1.0		ug/L			07/12/25 16:35	1
cis-1,3-Dichloropropene	ND	H H3	0.50		ug/L			07/12/25 16:35	1
Dibromochloromethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
Dibromomethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1
Dichlorodifluoromethane	ND	H H3	1.0		ug/L			07/12/25 16:35	1

Client Sample ID: Well 15 Step

Date Collected: 07/03/25 10:13
Date Received: 07/08/25 10:04

Lab Sample ID: 380-159048-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Di-isopropyl ether (DIPE)	ND	H H3	2.0	ug/L			07/12/25 16:35	1
Ethanol	ND	H H3	100	ug/L			07/12/25 16:35	1
Ethylbenzene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
Ethyl-t-butyl ether (ETBE)	ND	H H3	2.0	ug/L			07/12/25 16:35	1
Hexachloro-1,3-butadiene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
Isopropanol	ND	H H3	50	ug/L			07/12/25 16:35	1
Isopropylbenzene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
m,p-Xylene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
Methylene Chloride	ND	H H3	2.0	ug/L			07/12/25 16:35	1
Methyl-t-Butyl Ether (MTBE)	ND	H H3	1.0	ug/L			07/12/25 16:35	1
Naphthalene	ND	H H3	10	ug/L			07/12/25 16:35	1
n-Butylbenzene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
N-Propylbenzene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
o-Xylene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
p-Isopropyltoluene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
sec-Butylbenzene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
Styrene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
Tert-amyl-methyl ether (TAME)	ND	H H3	2.0	ug/L			07/12/25 16:35	1
tert-Butyl alcohol (TBA)	ND	H H3	10	ug/L			07/12/25 16:35	1
tert-Butylbenzene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
Tetrachloroethene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
Tetrahydrofuran	ND	H H3	10	ug/L			07/12/25 16:35	1
Toluene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
trans-1,2-Dichloroethene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
trans-1,3-Dichloropropene	ND	H H3	0.50	ug/L			07/12/25 16:35	1
Trichloroethene	ND	H H3	1.0	ug/L			07/12/25 16:35	1
Trichlorofluoromethane	ND	H H3	5.0	ug/L			07/12/25 16:35	1
Trihalomethanes, Total	ND	H H3	1.0	ug/L			07/12/25 16:35	1
Vinyl acetate	ND	H H3	10	ug/L			07/12/25 16:35	1
Vinyl chloride	ND	H H3	0.50	ug/L			07/12/25 16:35	1
Xylenes, Total	ND	H H3	1.0	ug/L			07/12/25 16:35	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Amyl Acetate TIC	*ND*	*H H3*	*ug/L*			*628-63-7*		*07/12/25 16:35*	*1*
Ethyl Acetate TIC	*ND*	*H H3*	*ug/L*			*141-78-6*		*07/12/25 16:35*	*1*
Isopropyl Acetate TIC	*ND*	*H H3*	*ug/L*			*108-21-4*		*07/12/25 16:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*60 - 140*		*07/12/25 16:35*	*1*
4-Bromofluorobenzene (Surr)	*110*		*60 - 140*		*07/12/25 16:35*	*1*
Dibromofluoromethane	*105*		*60 - 140*		*07/12/25 16:35*	*1*
Toluene-d8 (Surr)	*107*		*60 - 140*		*07/12/25 16:35*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.34	ug/L		07/10/25 15:21	07/11/25 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*76*		*30 - 187*	*07/10/25 15:21*	*07/11/25 18:15*	*1*
Benzo(a)pyrene-d12 (Surr)	*53*		*32 - 194*	*07/10/25 15:21*	*07/11/25 18:15*	*1*

Client Sample ID: Well 15 Step

Lab Sample ID: 380-159048-1

Date Collected: 07/03/25 10:13
Matrix: Water
Date Received: 07/08/25 10:04

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Methylnaphthalene-d10	*65*		*45 - 130*	*07/10/25 15:21*	*07/11/25 18:15*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	*- *1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
1,2-Dichlorobenzene	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
1,2-Diphenylhydrazine(as Azobenzene)	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
1,3-Dichlorobenzene	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
1,4-Dichlorobenzene	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
1-Methylnaphthalene	ND	*- *1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2,4,5-Trichlorophenol	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2,4,6-Trichlorophenol	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2,4-Dichlorophenol	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2,4-Dimethylphenol	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2,4-Dinitrophenol	ND		49	ug/L		07/09/25 05:16	07/15/25 13:15	1
2,4-Dinitrotoluene	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2,6-Dichlorophenol	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2,6-Dinitrotoluene	ND	*- *1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2-Chloronaphthalene	ND	*- *1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2-Chlorophenol	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2-Methylnaphthalene	ND	*- *1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2-Methylphenol	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2-Nitroaniline	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
2-Nitrophenol	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
3,3'-Dichlorobenzidine	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
3/4-Methylphenol	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
3-Nitroaniline	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
4,6-Dinitro-2-methylphenol	ND		49	ug/L		07/09/25 05:16	07/15/25 13:15	1
4-Bromophenyl phenyl ether	ND	*- *1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
4-Chloro-3-methylphenol	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
4-Chloroaniline	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
4-Chlorophenyl phenyl ether	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
4-Nitroaniline	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
4-Nitrophenol	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Acenaphthene	ND	*- *1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Acenaphthylene	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Acetophenone	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Alpha-Terpineol	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Aniline	ND	*- *1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Anthracene	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Azobenzene	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Benzidine	ND	*- *1	49	ug/L		07/09/25 05:16	07/15/25 13:15	1
Benzo[a]anthracene	ND	*1	9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Benzo[a]pyrene	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Benzo[b]fluoranthene	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Benzo[g,h,i]perylene	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Benzo[k]fluoranthene	ND		9.7	ug/L		07/09/25 05:16	07/15/25 13:15	1
Benzoic acid	ND	*1	49	ug/L		07/09/25 05:16	07/15/25 13:15	1

Client Sample ID: Well 15 Step

Date Collected: 07/03/25 10:13
Date Received: 07/08/25 10:04

Lab Sample ID: 380-159048-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzyl alcohol	ND	*1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Bis (2-chloroethoxy) methane	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
bis (2-chloroisopropyl) ether	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Bis(2-chloroethyl)ether	ND		24		ug/L		07/09/25 05:16	07/15/25 13:15	1
Bis(2-ethylhexyl) phthalate	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Butyl benzyl phthalate	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Carbazole	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Chrysene	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Dibenz(a,h)anthracene	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Dibenzofuran	ND	*1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Diethyl phthalate	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Dimethyl phthalate	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Di-n-butyl phthalate	ND	*1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Di-n-octyl phthalate	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Fluoranthene	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Fluorene	ND	*- *1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Hexachloro-1,3-butadiene	ND	*1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Hexachlorobenzene	ND	*1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Hexachlorocyclopentadiene	ND	*1	24		ug/L		07/09/25 05:16	07/15/25 13:15	1
Hexachloroethane	ND	*- *1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Indeno[1,2,3-cd]pyrene	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Isophorone	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Naphthalene	ND	*1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
n-Decane	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Nitrobenzene	ND		24		ug/L		07/09/25 05:16	07/15/25 13:15	1
N-Nitrosodimethylamine	ND	*- *1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
N-Nitrosodi-n-propylamine	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
N-Nitrosodiphenylamine	ND	*- *1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
n-Octadecane	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Pentachlorophenol	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Phenanthrene	ND	*- *1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Phenol	ND		9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Pyrene	ND	*- *1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1
Pyridine	ND	*- *1	9.7		ug/L		07/09/25 05:16	07/15/25 13:15	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*07/09/25 05:16*	*07/15/25 13:15*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*07/09/25 05:16*	*07/15/25 13:15*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*07/09/25 05:16*	*07/15/25 13:15*	*1*
2,3,7,8-TCDD TIC	*ND*		*ug/L*			*1746-01-6*	*07/09/25 05:16*	*07/15/25 13:15*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*07/09/25 05:16*	*07/15/25 13:15*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*07/09/25 05:16*	*07/15/25 13:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*92*		*33 - 139*	*07/09/25 05:16*	*07/15/25 13:15*	*1*
2-Fluorobiphenyl (Surr)	*79*		*33 - 126*	*07/09/25 05:16*	*07/15/25 13:15*	*1*
2-Fluorophenol (Surr)	*60*		*12 - 120*	*07/09/25 05:16*	*07/15/25 13:15*	*1*
Nitrobenzene-d5 (Surr)	*91*		*36 - 120*	*07/09/25 05:16*	*07/15/25 13:15*	*1*
Phenol-d6 (Surr)	*47*		*10 - 120*	*07/09/25 05:16*	*07/15/25 13:15*	*1*
p-Terphenyl-d14 (Surr)	*86*		*47 - 131*	*07/09/25 05:16*	*07/15/25 13:15*	*1*

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Client Sample ID: Well 15 Step

Date Collected: 07/03/25 10:13
Date Received: 07/08/25 10:04

Lab Sample ID: 380-159048-1

Matrix: Water

Method: SW846 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		50		ug/L			07/17/25 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*20 - 144*		*07/17/25 19:28*	*1*

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0099		ug/L		07/09/25 07:31	07/15/25 17:55	1
4,4'-DDE	ND		0.0050		ug/L		07/09/25 07:31	07/15/25 17:55	1
4,4'-DDT	ND		0.0050		ug/L		07/09/25 07:31	07/15/25 17:55	1
Aldrin	ND		0.0050		ug/L		07/09/25 07:31	07/15/25 17:55	1
alpha-BHC	ND		0.0020		ug/L		07/09/25 07:31	07/15/25 17:55	1
alpha-Chlordane	ND		0.050		ug/L		07/09/25 07:31	07/15/25 17:55	1
beta-BHC	ND		0.0074		ug/L		07/09/25 07:31	07/15/25 17:55	1
Chlordane	ND		0.050		ug/L		07/09/25 07:31	07/15/25 17:55	1
delta-BHC	ND		0.0050		ug/L		07/09/25 07:31	07/15/25 17:55	1
Dieldrin	ND		0.0050		ug/L		07/09/25 07:31	07/15/25 17:55	1
Endosulfan I	ND		0.0020		ug/L		07/09/25 07:31	07/15/25 17:55	1
Endosulfan II	ND		0.0099		ug/L		07/09/25 07:31	07/15/25 17:55	1
Endosulfan sulfate	ND		0.0050		ug/L		07/09/25 07:31	07/15/25 17:55	1
Endrin	ND		0.0050		ug/L		07/09/25 07:31	07/15/25 17:55	1
Endrin aldehyde	ND		0.050		ug/L		07/09/25 07:31	07/15/25 17:55	1
Endrin ketone	ND		0.0050		ug/L		07/09/25 07:31	07/15/25 17:55	1
gamma-BHC (Lindane)	ND		0.0020		ug/L		07/09/25 07:31	07/15/25 17:55	1
gamma-Chlordane	ND		0.015		ug/L		07/09/25 07:31	07/15/25 17:55	1
Heptachlor	ND		0.0020		ug/L		07/09/25 07:31	07/15/25 17:55	1
Heptachlor epoxide	ND		0.0099		ug/L		07/09/25 07:31	07/15/25 17:55	1
Methoxychlor	ND		0.0099		ug/L		07/09/25 07:31	07/15/25 17:55	1
Toxaphene	ND		0.099		ug/L		07/09/25 07:31	07/15/25 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*66*		*20 - 154*	*07/09/25 07:31*	*07/15/25 17:55*	*1*
Tetrachloro-m-xylene (Surr)	*53*		*20 - 139*	*07/09/25 07:31*	*07/15/25 17:55*	*1*

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.099		ug/L		07/09/25 07:31	07/15/25 07:26	1
Aroclor-1221	ND		0.099		ug/L		07/09/25 07:31	07/15/25 07:26	1
Aroclor-1232	ND		0.099		ug/L		07/09/25 07:31	07/15/25 07:26	1
Aroclor-1242	ND		0.099		ug/L		07/09/25 07:31	07/15/25 07:26	1
Aroclor-1248	ND		0.099		ug/L		07/09/25 07:31	07/15/25 07:26	1
Aroclor-1254	ND		0.099		ug/L		07/09/25 07:31	07/15/25 07:26	1
Aroclor-1260	ND		0.099		ug/L		07/09/25 07:31	07/15/25 07:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*90*		*20 - 154*	*07/09/25 07:31*	*07/15/25 07:26*	*1*
Tetrachloro-m-xylene (Surr)	*61*		*20 - 139*	*07/09/25 07:31*	*07/15/25 07:26*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.019		ug/L		07/15/25 04:42	07/15/25 19:04	1

Client Sample ID: Well 15 Step

Date Collected: 07/03/25 10:13
Date Received: 07/08/25 10:04

Lab Sample ID: 380-159048-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*118*		*46 - 136*	*07/15/25 04:42*	*07/15/25 19:04*	*1*
1,1,2,2-Tetrachloroethane (Surr)	*102*		*46 - 136*	*07/15/25 04:42*	*07/15/25 19:04*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		260	ug/L		07/09/25 11:59	08/03/25 18:30	1
Diesel Range Organics [C10-C28]	ND		52	ug/L		07/09/25 11:59	08/03/25 18:30	1
C24-C44	ND		260	ug/L		07/09/25 11:59	08/03/25 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*121*		*53 - 151*	*07/09/25 11:59*	*08/03/25 18:30*	*1*
n-Octacosane (Surr)	*121*		*53 - 151*	*07/09/25 11:59*	*08/03/25 18:30*	*1*

Method: SW846 8015C - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13	mg/L		07/14/25 14:10	07/14/25 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*10*		*10 - 130*	*07/14/25 14:10*	*07/14/25 21:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**54**		2.0	mg/L			07/09/25 10:38	20

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		10	mg/L			07/09/25 12:35	100
Sulfate	**2800**		100	mg/L			07/09/25 12:35	100

Method: EPA 300.0 - Anions, Ion Chromatography - DL2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19000**		1000	mg/L			07/09/25 13:43	1000

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**2.5**		0.50	ng/L			07/14/25 20:29	1

Method: EPA 1640 - Metals (ICPMS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	ug/L		07/29/25 14:14	07/30/25 23:02	1
Cadmium	**0.036**		0.020	ug/L		07/14/25 17:01	07/16/25 03:58	1
Chromium	ND		1.0	ug/L		07/29/25 14:14	07/30/25 23:02	1
Copper	**0.59**		0.50	ug/L		07/14/25 17:01	07/16/25 03:58	1
Lead	ND		0.050	ug/L		07/14/25 17:01	07/16/25 03:58	1
Zinc	**3.8**		1.0	ug/L		07/14/25 17:01	07/16/25 03:58	1
Aluminum	ND		5.0	ug/L		08/06/25 00:00	08/07/25 01:53	1
Barium	**26**		0.50	ug/L		07/29/25 14:14	07/30/25 23:02	1
Iron	**16**		5.0	ug/L		07/14/25 17:01	07/16/25 03:58	1
Manganese	**3.0**		0.050	ug/L		07/14/25 17:01	07/16/25 03:58	1
Selenium	ND		0.70	ug/L		07/14/25 17:01	07/16/25 03:58	1
Vanadium	**2.1**		1.0	ug/L		07/14/25 17:01	07/16/25 03:58	1
Silver	ND		1.0	ug/L		07/14/25 17:01	07/16/25 03:58	1

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Client Sample ID: Well 15 Step

Date Collected: 07/03/25 10:13
Date Received: 07/08/25 10:04

Lab Sample ID: 380-159048-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**420**		2.5	mg/L		07/14/25 18:59	07/16/25 16:49	5
Iron	ND		0.50	mg/L		07/14/25 18:59	07/15/25 17:33	1
Magnesium	**1200**		2.5	mg/L		07/14/25 18:59	07/16/25 16:49	5
Potassium	**400**		17	mg/L		07/14/25 18:59	07/16/25 16:49	5
Sodium	**11000**		60	mg/L		07/14/25 18:59	07/17/25 17:08	100
SiO2, Silica	**25**		2.3	mg/L		07/14/25 18:59	07/15/25 17:33	1
Lithium	ND		0.50	mg/L		07/14/25 18:59	07/16/25 16:49	5
Strontium	**8.0**		0.050	mg/L			08/06/25 16:46	5

Method: SW846 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		20	ug/L			08/05/25 17:12	20

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		0.98	mg/L		07/15/25 08:43	07/21/25 18:59	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20	mg/L		07/09/25 14:50	07/10/25 17:26	1
Chemical Oxygen Demand (EPA 410.4)	**38**	**H**	10	mg/L		08/03/25 08:40	08/03/25 08:20	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**95**		5.0	mg/L			07/16/25 16:30	1
Bicarbonate (as CaCO3) (SM 2320B)	**95**		5.0	mg/L			07/16/25 16:30	1
Carbonate (as CaCO3) (SM 2320B)	ND		5.0	mg/L			07/16/25 16:30	1
Hydroxide (as CaCO3) (SM 2320B)	ND		5.0	mg/L			07/16/25 16:30	1
Salinity (SM 2520B)	**34**		2.0	psu			07/21/25 15:13	1
Total Dissolved Solids (SM 2540C)	**35000**		1000	mg/L			07/09/25 20:03	1
Carbon, Non-Purgable Organic (SM 5310C)	ND		0.50	mg/L			07/27/25 04:24	1

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	**256**	**G**	55.2	60.9	4.00	63.1	pCi/L	07/14/25 07:57	07/16/25 07:37	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.245	U	0.437	0.438	1.00	0.768	pCi/L	07/11/25 08:30	08/05/25 15:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*30 - 110*	*07/11/25 08:30*	*08/05/25 15:22*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.40**	**G**	0.767	0.777	1.00	1.09	pCi/L	07/11/25 08:33	08/05/25 11:44	1

Client Sample ID: Well 15 Step

Lab Sample ID: 380-159048-1

Date Collected: 07/03/25 10:13
Matrix: Water
Date Received: 07/08/25 10:04

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*30 - 110*	*07/11/25 08:33*	*08/05/25 11:44*	*1*
Y Carrier	*83.0*		*30 - 110*	*07/11/25 08:33*	*08/05/25 11:44*	*1*

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.544	U	1.61	1.61	3.00	1.70	pCi/L	07/17/25 13:45	07/30/25 14:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*82.1*		*30 - 110*	*07/17/25 13:45*	*07/30/25 14:46*	*1*
Y Carrier	*85.2*		*30 - 110*	*07/17/25 13:45*	*07/30/25 14:46*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.64**		0.883	0.892	5.00	1.09	pCi/L		08/06/25 12:31	1

Method: SM7110C - Gross Alpha by Co-Precipitation

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	1.15	U	0.856	0.866	3.00	1.29	pCi/L	07/14/25 08:02	07/15/25 21:03	1

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
380-159048-1	Well 15 Step	99	110	105	107
LCS 570-596358/1002	Lab Control Sample	98	100	99	97
LCSD 570-596358/3	Lab Control Sample Dup	96	99	100	99
MB 570-596358/5	Method Blank	94	110	103	107

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-159048-1	Well 15 Step	92	79	60	91	47	86
LCS 570-594598/2-A	Lab Control Sample	93	82	62	86	41	91
LCSD 570-594598/3-A	Lab Control Sample Dup	62	54	41	58	27	64
MB 570-594598/1-A	Method Blank	95	87	57	99	35	90

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FLN10	BAPd12	MNPd10
Lab Sample ID	Client Sample ID	(30-187)	(32-194)	(45-130)
380-159048-1	Well 15 Step	76	53	65
LCS 410-669634/2-A	Lab Control Sample	85	78	69
LCSD 410-669634/3-A	Lab Control Sample Dup	79	71	62
MB 410-669634/1-A	Method Blank	86	77	74

Surrogate Legend

FLN10 = Fluoranthene-d10 (Surr)
BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10

Surrogate Summary

Client: INTERA Inc
Job ID: 380-159048-1
Project/Site: Kalealoa Desalination Project
SDG: Well 15 Step

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	BFB1 (20-144)
380-159048-1	Well 15 Step	90
LCS 570-598728/51	Lab Control Sample	89
LCSD 570-598728/52	Lab Control Sample Dup	92
MB 570-598728/53	Method Blank	89

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX1 (20-139)
LCSD 570-594401/3-A	Lab Control Sample Dup	79	64

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB2 (20-154)	TCX1 (20-139)
380-159048-1	Well 15 Step	66	53
LCSD 570-594401/7-A	Lab Control Sample Dup	94	74

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB2 (20-154)	TCX2 (20-139)
LCS 570-594401/2-A	Lab Control Sample	68	56

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB1 (20-154)	TCX2 (20-139)
LCS 570-594401/6-A	Lab Control Sample	87	64
MB 570-594401/1-A	Method Blank	93	70

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(20-154)	(20-139)
380-159048-1	Well 15 Step	90	61
LCS 570-594401/4-A	Lab Control Sample	84	73
LCSD 570-594401/5-A	Lab Control Sample Dup	94	80
MB 570-594401/1-A	Method Blank	85	72

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
380-159048-1	Well 15 Step	118	102
LCS 410-671193/2-A	Lab Control Sample	106	104
LCSD 410-671193/3-A	Lab Control Sample Dup	102	102
MB 410-671193/1-A	Method Blank	101	100

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTCSN1	OTCSN1
Lab Sample ID	Client Sample ID	(53-151)	(53-151)
380-159048-1	Well 15 Step	121	121
LCS 570-594846/2-A	Lab Control Sample	109	109
LCS 570-594846/4-A	Lab Control Sample	113	113
LCSD 570-594846/3-A	Lab Control Sample Dup	112	112
LCSD 570-594846/5-A	Lab Control Sample Dup	107	107
MB 570-594846/1-A	Method Blank	105	105

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015C - Glycols- Direct Injection (GC/FID)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		14BD1
Lab Sample ID	Client Sample ID	(10-130)
380-159048-1	Well 15 Step	10
LCS 410-670970/2-A	Lab Control Sample	97
MB 410-670970/1-A	Method Blank	92

Surrogate Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Surrogate Legend

14BD = 1,4-Butanediol

Tracer/Carrier Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Ba							
Lab Sample ID	Client Sample ID	(30-110)							
380-159048-1	Well 15 Step	86.6							
LCS 160-726866/2-A	Lab Control Sample	94.0							
MB 160-726866/1-A	Method Blank	89.7							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Ba	Y						
Lab Sample ID	Client Sample ID	(30-110)	(30-110)						
380-159048-1	Well 15 Step	86.6	83.0						
LCS 160-726868/2-A	Lab Control Sample	94.0	83.0						
MB 160-726868/1-A	Method Blank	89.7	81.1						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Sr	Y						
Lab Sample ID	Client Sample ID	(30-110)	(30-110)						
380-159048-1	Well 15 Step	82.1	85.2						
LCS 160-727806/2-A	Lab Control Sample	77.2	93.1						
LCSD 160-727806/3-A	Lab Control Sample Dup	77.8	86.4						
MB 160-727806/1-A	Method Blank	73.5	88.2						

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-596358/5
Matrix: Water
Analysis Batch: 596358

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/12/25 14:04	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/12/25 14:04	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/12/25 14:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			07/12/25 14:04	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/12/25 14:04	1
1,1-Dichloroethane	ND		1.0		ug/L			07/12/25 14:04	1
1,1-Dichloroethene	ND		1.0		ug/L			07/12/25 14:04	1
1,1-Dichloropropene	ND		1.0		ug/L			07/12/25 14:04	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/12/25 14:04	1
1,2,3-Trichloropropane	ND		5.0		ug/L			07/12/25 14:04	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/12/25 14:04	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/12/25 14:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/12/25 14:04	1
1,2-Dibromoethane	ND		1.0		ug/L			07/12/25 14:04	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/12/25 14:04	1
1,2-Dichloroethane	ND		0.50		ug/L			07/12/25 14:04	1
1,2-Dichloroethene, Total	ND		1.0		ug/L			07/12/25 14:04	1
1,2-Dichloropropane	ND		1.0		ug/L			07/12/25 14:04	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/12/25 14:04	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/12/25 14:04	1
1,3-Dichloropropane	ND		1.0		ug/L			07/12/25 14:04	1
1,3-Dichloropropene, Total	ND		0.50		ug/L			07/12/25 14:04	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/12/25 14:04	1
2,2-Dichloro-1,1,1-trifluoroethane	ND		10		ug/L			07/12/25 14:04	1
2,2-Dichloropropane	ND		1.0		ug/L			07/12/25 14:04	1
2-Butanone	ND		10		ug/L			07/12/25 14:04	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			07/12/25 14:04	1
2-Chlorotoluene	ND		1.0		ug/L			07/12/25 14:04	1
2-Hexanone	ND		10		ug/L			07/12/25 14:04	1
4-Chlorotoluene	ND		1.0		ug/L			07/12/25 14:04	1
4-Methyl-2-pentanone	ND		10		ug/L			07/12/25 14:04	1
Acetone	ND		12		ug/L			07/12/25 14:04	1
Benzene	ND		0.50		ug/L			07/12/25 14:04	1
Bromobenzene	ND		1.0		ug/L			07/12/25 14:04	1
Bromochloromethane	ND		1.0		ug/L			07/12/25 14:04	1
Bromodichloromethane	ND		1.0		ug/L			07/12/25 14:04	1
Bromoform	ND		1.0		ug/L			07/12/25 14:04	1
Bromomethane	ND		5.0		ug/L			07/12/25 14:04	1
Carbon disulfide	ND		10		ug/L			07/12/25 14:04	1
Carbon tetrachloride	ND		0.50		ug/L			07/12/25 14:04	1
Chlorobenzene	ND		1.0		ug/L			07/12/25 14:04	1
Chloroethane	ND		1.0		ug/L			07/12/25 14:04	1
Chloroform	ND		1.0		ug/L			07/12/25 14:04	1
Chloromethane	ND		1.0		ug/L			07/12/25 14:04	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/12/25 14:04	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/12/25 14:04	1
Dibromochloromethane	ND		1.0		ug/L			07/12/25 14:04	1
Dibromomethane	ND		1.0		ug/L			07/12/25 14:04	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-596358/5
Matrix: Water
Analysis Batch: 596358

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	ug/L			07/12/25 14:04	1
Di-isopropyl ether (DIPE)	ND		2.0	ug/L			07/12/25 14:04	1
Ethanol	ND		100	ug/L			07/12/25 14:04	1
Ethylbenzene	ND		1.0	ug/L			07/12/25 14:04	1
Ethyl-t-butyl ether (ETBE)	ND		2.0	ug/L			07/12/25 14:04	1
Hexachloro-1,3-butadiene	ND		1.0	ug/L			07/12/25 14:04	1
Isopropanol	ND		50	ug/L			07/12/25 14:04	1
Isopropylbenzene	ND		1.0	ug/L			07/12/25 14:04	1
m,p-Xylene	ND		1.0	ug/L			07/12/25 14:04	1
Methylene Chloride	ND		2.0	ug/L			07/12/25 14:04	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			07/12/25 14:04	1
Naphthalene	ND		10	ug/L			07/12/25 14:04	1
n-Butylbenzene	ND		1.0	ug/L			07/12/25 14:04	1
N-Propylbenzene	ND		1.0	ug/L			07/12/25 14:04	1
o-Xylene	ND		1.0	ug/L			07/12/25 14:04	1
p-Isopropyltoluene	ND		1.0	ug/L			07/12/25 14:04	1
sec-Butylbenzene	ND		1.0	ug/L			07/12/25 14:04	1
Styrene	ND		1.0	ug/L			07/12/25 14:04	1
Tert-amyl-methyl ether (TAME)	ND		2.0	ug/L			07/12/25 14:04	1
tert-Butyl alcohol (TBA)	ND		10	ug/L			07/12/25 14:04	1
tert-Butylbenzene	ND		1.0	ug/L			07/12/25 14:04	1
Tetrachloroethene	ND		1.0	ug/L			07/12/25 14:04	1
Tetrahydrofuran	ND		10	ug/L			07/12/25 14:04	1
Toluene	ND		1.0	ug/L			07/12/25 14:04	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			07/12/25 14:04	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			07/12/25 14:04	1
Trichloroethene	ND		1.0	ug/L			07/12/25 14:04	1
Trichlorofluoromethane	ND		5.0	ug/L			07/12/25 14:04	1
Trihalomethanes, Total	ND		1.0	ug/L			07/12/25 14:04	1
Vinyl acetate	ND		10	ug/L			07/12/25 14:04	1
Vinyl chloride	ND		0.50	ug/L			07/12/25 14:04	1
Xylenes, Total	ND		1.0	ug/L			07/12/25 14:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*60 - 140*		*07/12/25 14:04*	*1*
4-Bromofluorobenzene (Surr)	*110*		*60 - 140*		*07/12/25 14:04*	*1*
Dibromofluoromethane	*103*		*60 - 140*		*07/12/25 14:04*	*1*
Toluene-d8 (Surr)	*107*		*60 - 140*		*07/12/25 14:04*	*1*

Lab Sample ID: LCS 570-596358/1002
Matrix: Water
Analysis Batch: 596358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	18.4		ug/L		92	60 - 140
1,1,1-Trichloroethane	20.0	18.0		ug/L		90	70 - 130
1,1,2,2-Tetrachloroethane	20.0	18.0		ug/L		90	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	16.1		ug/L		81	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-596358/1002
Matrix: Water
Analysis Batch: 596358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	20.0	18.4		ug/L		92	70 - 130
1,1-Dichloroethane	20.0	18.9		ug/L		95	70 - 130
1,1-Dichloroethene	20.0	16.4		ug/L		82	50 - 150
1,1-Dichloropropene	20.0	18.9		ug/L		95	60 - 140
1,2,3-Trichlorobenzene	20.0	20.5		ug/L		103	60 - 140
1,2,3-Trichloropropane	20.0	16.9		ug/L		85	60 - 140
1,2,4-Trichlorobenzene	20.0	21.3		ug/L		106	60 - 140
1,2,4-Trimethylbenzene	20.0	19.8		ug/L		99	60 - 140
1,2-Dibromo-3-Chloropropane	20.0	17.2		ug/L		86	60 - 140
1,2-Dibromoethane	20.0	17.9		ug/L		89	60 - 140
1,2-Dichlorobenzene	20.0	19.8		ug/L		99	65 - 135
1,2-Dichloroethane	20.0	17.4		ug/L		87	70 - 130
1,2-Dichloropropane	20.0	19.7		ug/L		99	35 - 165
1,3,5-Trimethylbenzene	20.0	18.9		ug/L		95	60 - 140
1,3-Dichlorobenzene	20.0	19.7		ug/L		98	70 - 130
1,3-Dichloropropane	20.0	18.5		ug/L		92	60 - 140
1,4-Dichlorobenzene	20.0	19.2		ug/L		96	65 - 135
2,2-Dichloro-1,1,1-trifluoroethane	20.0	18.4		ug/L		92	60 - 140
2,2-Dichloropropane	20.0	19.4		ug/L		97	60 - 140
2-Butanone	20.0	15.7		ug/L		78	60 - 140
2-Chloroethyl vinyl ether	20.0	16.4		ug/L		82	1 - 225
2-Chlorotoluene	20.0	18.8		ug/L		94	60 - 140
2-Hexanone	20.0	17.6		ug/L		88	60 - 140
4-Chlorotoluene	20.0	19.8		ug/L		99	60 - 140
4-Methyl-2-pentanone	20.0	18.4		ug/L		92	60 - 140
Acetone	20.0	14.4		ug/L		72	60 - 140
Benzene	20.0	18.5		ug/L		92	65 - 135
Bromobenzene	20.0	18.2		ug/L		91	60 - 140
Bromochloromethane	20.0	19.0		ug/L		95	60 - 140
Bromodichloromethane	20.0	18.7		ug/L		94	65 - 135
Bromoform	20.0	17.4		ug/L		87	70 - 130
Bromomethane	20.0	11.5		ug/L		58	15 - 185
Carbon disulfide	20.0	14.8		ug/L		74	60 - 140
Carbon tetrachloride	20.0	19.9		ug/L		100	70 - 130
Chlorobenzene	20.0	18.6		ug/L		93	65 - 135
Chloroethane	20.0	19.8		ug/L		99	40 - 160
Chloroform	20.0	18.7		ug/L		93	70 - 135
Chloromethane	20.0	11.1		ug/L		55	1 - 205
cis-1,2-Dichloroethene	20.0	19.1		ug/L		95	60 - 140
cis-1,3-Dichloropropene	20.0	19.3		ug/L		97	25 - 175
Dibromochloromethane	20.0	17.8		ug/L		89	70 - 135
Dibromomethane	20.0	18.1		ug/L		91	60 - 140
Dichlorodifluoromethane	20.0	16.9		ug/L		84	60 - 140
Di-isopropyl ether (DIPE)	20.0	18.8		ug/L		94	60 - 140
Ethanol	200	202		ug/L		101	60 - 140
Ethylbenzene	20.0	18.6		ug/L		93	60 - 140
Ethyl-t-butyl ether (ETBE)	20.0	18.6		ug/L		93	60 - 140
Hexachloro-1,3-butadiene	20.0	20.0		ug/L		100	60 - 140
Isopropanol	100	86.7		ug/L		87	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-596358/1002
Matrix: Water
Analysis Batch: 596358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	20.0	18.2		ug/L		91	60 - 140
m,p-Xylene	40.0	36.4		ug/L		91	60 - 140
Methylene Chloride	20.0	18.3		ug/L		91	60 - 140
Methyl-t-Butyl Ether (MTBE)	20.0	18.3		ug/L		92	60 - 140
Naphthalene	20.0	17.4		ug/L		87	60 - 140
n-Butylbenzene	20.0	20.1		ug/L		101	60 - 140
N-Propylbenzene	20.0	18.9		ug/L		94	60 - 140
o-Xylene	20.0	18.9		ug/L		94	60 - 140
p-Isopropyltoluene	20.0	19.9		ug/L		99	60 - 140
sec-Butylbenzene	20.0	19.9		ug/L		100	60 - 140
Styrene	20.0	18.6		ug/L		93	60 - 140
Tert-amyl-methyl ether (TAME)	20.0	17.9		ug/L		89	60 - 140
tert-Butyl alcohol (TBA)	100	104		ug/L		104	60 - 140
tert-Butylbenzene	20.0	19.6		ug/L		98	60 - 140
Tetrachloroethene	20.0	18.3		ug/L		92	70 - 130
Tetrahydrofuran	20.0	17.2		ug/L		86	60 - 140
Toluene	20.0	18.7		ug/L		93	70 - 130
trans-1,2-Dichloroethene	20.0	17.7		ug/L		88	70 - 130
trans-1,3-Dichloropropene	20.0	19.4		ug/L		97	50 - 150
Trichloroethene	20.0	18.4		ug/L		92	65 - 135
Trichlorofluoromethane	20.0	16.8		ug/L		84	50 - 150
Vinyl acetate	20.0	19.9		ug/L		99	60 - 140
Vinyl chloride	20.0	16.6		ug/L		83	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*60 - 140*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*
Dibromofluoromethane	*99*		*60 - 140*
Toluene-d8 (Surr)	*97*		*60 - 140*

Lab Sample ID: LCSD 570-596358/3
Matrix: Water
Analysis Batch: 596358

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	18.0		ug/L		90	60 - 140	2	30
1,1,1-Trichloroethane	20.0	17.4		ug/L		87	70 - 130	4	36
1,1,2,2-Tetrachloroethane	20.0	17.9		ug/L		90	60 - 140	0	61
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	15.1		ug/L		76	60 - 140	6	30
1,1,2-Trichloroethane	20.0	17.9		ug/L		89	70 - 130	3	45
1,1-Dichloroethane	20.0	18.8		ug/L		94	70 - 130	1	40
1,1-Dichloroethene	20.0	15.8		ug/L		79	50 - 150	3	32
1,1-Dichloropropene	20.0	18.0		ug/L		90	60 - 140	5	30
1,2,3-Trichlorobenzene	20.0	20.6		ug/L		103	60 - 140	1	30
1,2,3-Trichloropropane	20.0	17.0		ug/L		85	60 - 140	1	30
1,2,4-Trichlorobenzene	20.0	21.4		ug/L		107	60 - 140	1	30
1,2,4-Trimethylbenzene	20.0	19.6		ug/L		98	60 - 140	1	30
1,2-Dibromo-3-Chloropropane	20.0	16.8		ug/L		84	60 - 140	2	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-596358/3
Matrix: Water
Analysis Batch: 596358

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane	20.0	17.5		ug/L		88	60 - 140	2	30
1,2-Dichlorobenzene	20.0	19.6		ug/L		98	65 - 135	1	57
1,2-Dichloroethane	20.0	17.8		ug/L		89	70 - 130	3	49
1,2-Dichloropropane	20.0	19.1		ug/L		95	35 - 165	3	55
1,3,5-Trimethylbenzene	20.0	19.0		ug/L		95	60 - 140	0	30
1,3-Dichlorobenzene	20.0	19.9		ug/L		100	70 - 130	1	43
1,3-Dichloropropane	20.0	18.3		ug/L		91	60 - 140	1	30
1,4-Dichlorobenzene	20.0	19.0		ug/L		95	65 - 135	1	57
2,2-Dichloro-1,1,1-trifluoroethane	20.0	17.8		ug/L		89	60 - 140	3	30
2,2-Dichloropropane	20.0	18.5		ug/L		92	60 - 140	5	30
2-Butanone	20.0	15.8		ug/L		79	60 - 140	1	30
2-Chloroethyl vinyl ether	20.0	16.9		ug/L		84	1 - 225	3	71
2-Chlorotoluene	20.0	18.9		ug/L		95	60 - 140	1	30
2-Hexanone	20.0	18.0		ug/L		90	60 - 140	2	30
4-Chlorotoluene	20.0	19.5		ug/L		97	60 - 140	2	30
4-Methyl-2-pentanone	20.0	19.1		ug/L		95	60 - 140	3	30
Acetone	20.0	15.1		ug/L		75	60 - 140	5	30
Benzene	20.0	18.4		ug/L		92	65 - 135	0	61
Bromobenzene	20.0	18.5		ug/L		93	60 - 140	2	30
Bromochloromethane	20.0	18.6		ug/L		93	60 - 140	2	30
Bromodichloromethane	20.0	19.1		ug/L		95	65 - 135	2	56
Bromoform	20.0	17.7		ug/L		88	70 - 130	2	42
Bromomethane	20.0	12.9		ug/L		64	15 - 185	11	61
Carbon disulfide	20.0	14.3		ug/L		72	60 - 140	3	30
Carbon tetrachloride	20.0	18.8		ug/L		94	70 - 130	6	41
Chlorobenzene	20.0	18.4		ug/L		92	65 - 135	1	53
Chloroethane	20.0	21.0		ug/L		105	40 - 160	6	78
Chloroform	20.0	18.7		ug/L		93	70 - 135	0	30
Chloromethane	20.0	12.1		ug/L		61	1 - 205	9	60
cis-1,2-Dichloroethene	20.0	19.1		ug/L		95	60 - 140	0	30
cis-1,3-Dichloropropene	20.0	18.7		ug/L		94	25 - 175	3	58
Dibromochloromethane	20.0	17.9		ug/L		90	70 - 135	1	50
Dibromomethane	20.0	18.6		ug/L		93	60 - 140	3	30
Dichlorodifluoromethane	20.0	16.2		ug/L		81	60 - 140	4	30
Di-isopropyl ether (DIPE)	20.0	18.5		ug/L		93	60 - 140	1	30
Ethanol	200	191		ug/L		96	60 - 140	6	30
Ethylbenzene	20.0	18.2		ug/L		91	60 - 140	2	63
Ethyl-t-butyl ether (ETBE)	20.0	17.9		ug/L		90	60 - 140	3	30
Hexachloro-1,3-butadiene	20.0	19.6		ug/L		98	60 - 140	2	30
Isopropanol	100	76.6		ug/L		77	60 - 140	12	30
Isopropylbenzene	20.0	18.1		ug/L		91	60 - 140	0	30
m,p-Xylene	40.0	36.0		ug/L		90	60 - 140	1	30
Methylene Chloride	20.0	18.2		ug/L		91	60 - 140	1	28
Methyl-t-Butyl Ether (MTBE)	20.0	17.8		ug/L		89	60 - 140	3	30
Naphthalene	20.0	17.9		ug/L		89	60 - 140	3	30
n-Butylbenzene	20.0	19.7		ug/L		98	60 - 140	2	30
N-Propylbenzene	20.0	18.6		ug/L		93	60 - 140	2	30
o-Xylene	20.0	18.7		ug/L		94	60 - 140	1	30
p-Isopropyltoluene	20.0	19.3		ug/L		96	60 - 140	3	30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-596358/3
Matrix: Water
Analysis Batch: 596358

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
sec-Butylbenzene			20.0	19.2		ug/L		96	60 - 140	4	30
Styrene			20.0	18.5		ug/L		92	60 - 140	1	30
Tert-amyl-methyl ether (TAME)			20.0	17.9		ug/L		90	60 - 140	0	30
tert-Butyl alcohol (TBA)			100	99.6		ug/L		100	60 - 140	4	30
tert-Butylbenzene			20.0	19.0		ug/L		95	60 - 140	3	30
Tetrachloroethene			20.0	17.3		ug/L		87	70 - 130	6	39
Tetrahydrofuran			20.0	16.5		ug/L		82	60 - 140	5	30
Toluene			20.0	18.4		ug/L		92	70 - 130	1	41
trans-1,2-Dichloroethene			20.0	17.4		ug/L		87	70 - 130	2	45
trans-1,3-Dichloropropene			20.0	19.1		ug/L		95	50 - 150	2	86
Trichloroethene			20.0	18.3		ug/L		91	65 - 135	1	48
Trichlorofluoromethane			20.0	15.8		ug/L		79	50 - 150	6	84
Vinyl acetate			20.0	19.5		ug/L		98	60 - 140	2	30
Vinyl chloride			20.0	16.3		ug/L		82	5 - 195	1	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*60 - 140*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*
Dibromofluoromethane	*100*		*60 - 140*
Toluene-d8 (Surr)	*99*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-594598/1-A
Matrix: Water
Analysis Batch: 597280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 594598

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
1,2-Dichlorobenzene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
1,3-Dichlorobenzene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
1,4-Dichlorobenzene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
1-Methylnaphthalene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2,4,5-Trichlorophenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2,4,6-Trichlorophenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2,4-Dichlorophenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2,4-Dimethylphenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2,4-Dinitrophenol	ND		50		ug/L		07/09/25 05:16	07/15/25 11:14	1
2,4-Dinitrotoluene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2,6-Dichlorophenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2,6-Dinitrotoluene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2-Chloronaphthalene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2-Chlorophenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2-Methylnaphthalene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2-Methylphenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2-Nitroaniline	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
2-Nitrophenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-594598/1-A
Matrix: Water
Analysis Batch: 597280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 594598

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
3/4-Methylphenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
3-Nitroaniline	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		07/09/25 05:16	07/15/25 11:14	1
4-Bromophenyl phenyl ether	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
4-Chloro-3-methylphenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
4-Chloroaniline	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
4-Nitroaniline	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
4-Nitrophenol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Acenaphthene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Acenaphthylene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Acetophenone	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Alpha-Terpineol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Aniline	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Anthracene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Azobenzene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Benzidine	ND		50		ug/L		07/09/25 05:16	07/15/25 11:14	1
Benzo[a]anthracene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Benzo[a]pyrene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Benzo[b]fluoranthene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Benzo[g,h,i]perylene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Benzo[k]fluoranthene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Benzoic acid	ND		50		ug/L		07/09/25 05:16	07/15/25 11:14	1
Benzyl alcohol	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Bis (2-chloroethoxy) methane	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Bis(2-chloroethyl)ether	ND		25		ug/L		07/09/25 05:16	07/15/25 11:14	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Butyl benzyl phthalate	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Carbazole	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Chrysene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Dibenz(a,h)anthracene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Dibenzofuran	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Diethyl phthalate	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Dimethyl phthalate	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Di-n-butyl phthalate	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Di-n-octyl phthalate	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Fluoranthene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Fluorene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Hexachloro-1,3-butadiene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Hexachlorobenzene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Hexachlorocyclopentadiene	ND		25		ug/L		07/09/25 05:16	07/15/25 11:14	1
Hexachloroethane	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Isophorone	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Naphthalene	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
n-Decane	ND		10		ug/L		07/09/25 05:16	07/15/25 11:14	1
Nitrobenzene	ND		25		ug/L		07/09/25 05:16	07/15/25 11:14	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-594598/1-A
Matrix: Water
Analysis Batch: 597280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 594598

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		10	ug/L		07/09/25 05:16	07/15/25 11:14	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		07/09/25 05:16	07/15/25 11:14	1
N-Nitrosodiphenylamine	ND		10	ug/L		07/09/25 05:16	07/15/25 11:14	1
n-Octadecane	ND		10	ug/L		07/09/25 05:16	07/15/25 11:14	1
Pentachlorophenol	ND		10	ug/L		07/09/25 05:16	07/15/25 11:14	1
Phenanthrene	ND		10	ug/L		07/09/25 05:16	07/15/25 11:14	1
Phenol	ND		10	ug/L		07/09/25 05:16	07/15/25 11:14	1
Pyrene	ND		10	ug/L		07/09/25 05:16	07/15/25 11:14	1
Pyridine	ND		10	ug/L		07/09/25 05:16	07/15/25 11:14	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,4,6-Tetrachlorophenol TIC	*ND*		*ug/L*			*58-90-2*	*07/09/25 05:16*	*07/15/25 11:14*	*1*
2,3,4-Trichlorophenol TIC	*ND*		*ug/L*			*15950-66-0*	*07/09/25 05:16*	*07/15/25 11:14*	*1*
2,3,6-Trichlorophenol TIC	*ND*		*ug/L*			*933-75-5*	*07/09/25 05:16*	*07/15/25 11:14*	*1*
3,4,5-Trichlorophenol TIC	*ND*		*ug/L*			*609-19-8*	*07/09/25 05:16*	*07/15/25 11:14*	*1*
Phenylacetic Acid TIC	*ND*		*ug/L*			*103-82-2*	*07/09/25 05:16*	*07/15/25 11:14*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*33 - 139*	*07/09/25 05:16*	*07/15/25 11:14*	*1*
2-Fluorobiphenyl (Surr)	*87*		*33 - 126*	*07/09/25 05:16*	*07/15/25 11:14*	*1*
2-Fluorophenol (Surr)	*57*		*12 - 120*	*07/09/25 05:16*	*07/15/25 11:14*	*1*
Nitrobenzene-d5 (Surr)	*99*		*36 - 120*	*07/09/25 05:16*	*07/15/25 11:14*	*1*
Phenol-d6 (Surr)	*35*		*10 - 120*	*07/09/25 05:16*	*07/15/25 11:14*	*1*
p-Terphenyl-d14 (Surr)	*90*		*47 - 131*	*07/09/25 05:16*	*07/15/25 11:14*	*1*

Lab Sample ID: LCS 570-594598/2-A
Matrix: Water
Analysis Batch: 597280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 594598

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	100	85.1		ug/L		85	57 - 130
1,2-Dichlorobenzene	100	80.4		ug/L		80	50 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	89.4		ug/L		89	57 - 120
1,3-Dichlorobenzene	100	79.5		ug/L		79	46 - 120
1,4-Dichlorobenzene	100	79.3		ug/L		79	47 - 120
1-Methylnaphthalene	100	88.8		ug/L		89	63 - 120
2,4,5-Trichlorophenol	100	93.7		ug/L		94	62 - 120
2,4,6-Trichlorophenol	100	91.8		ug/L		92	52 - 129
2,4-Dichlorophenol	100	94.6		ug/L		95	53 - 122
2,4-Dimethylphenol	100	82.4		ug/L		82	42 - 120
2,4-Dinitrophenol	100	92.5		ug/L		93	1 - 173
2,4-Dinitrotoluene	100	88.7		ug/L		89	48 - 127
2,6-Dichlorophenol	100	92.9		ug/L		93	64 - 120
2,6-Dinitrotoluene	100	91.6		ug/L		92	68 - 137
2-Chloronaphthalene	100	90.8		ug/L		91	65 - 120
2-Chlorophenol	100	100		ug/L		100	36 - 120
2-Methylnaphthalene	100	85.8		ug/L		86	60 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-594598/2-A
Matrix: Water
Analysis Batch: 597280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 594598

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylphenol	100	86.5		ug/L		87	55 - 120
2-Nitroaniline	100	96.4		ug/L		96	53 - 120
2-Nitrophenol	100	91.5		ug/L		92	45 - 167
3,3'-Dichlorobenzidine	100	72.1		ug/L		72	8 - 213
3/4-Methylphenol	200	149		ug/L		75	41 - 120
3-Nitroaniline	100	87.9		ug/L		88	62 - 120
4,6-Dinitro-2-methylphenol	100	90.9		ug/L		91	53 - 130
4-Bromophenyl phenyl ether	100	83.5		ug/L		84	65 - 120
4-Chloro-3-methylphenol	100	93.9		ug/L		94	41 - 128
4-Chloroaniline	100	78.5		ug/L		79	53 - 120
4-Chlorophenyl phenyl ether	100	87.3		ug/L		87	38 - 145
4-Nitroaniline	100	94.6		ug/L		95	61 - 120
4-Nitrophenol	100	43.3		ug/L		43	13 - 129
Acenaphthene	100	87.8		ug/L		88	60 - 132
Acenaphthylene	100	87.5		ug/L		88	54 - 126
Acetophenone	100	88.2		ug/L		88	45 - 120
Alpha-Terpineol	100	88.9		ug/L		89	60 - 140
Aniline	100	38.7	*-	ug/L		39	50 - 120
Anthracene	100	85.4		ug/L		85	43 - 120
Azobenzene	100	89.4		ug/L		89	57 - 120
Benzidine	100	ND	*-	ug/L		0.3	20 - 143
Benzo[a]anthracene	100	90.3		ug/L		90	42 - 133
Benzo[a]pyrene	100	90.8		ug/L		91	32 - 148
Benzo[b]fluoranthene	100	94.3		ug/L		94	42 - 140
Benzo[g,h,i]perylene	100	94.2		ug/L		94	1 - 195
Benzo[k]fluoranthene	100	91.0		ug/L		91	25 - 146
Benzoic acid	100	40.0	J	ug/L		40	20 - 120
Benzyl alcohol	100	82.3		ug/L		82	47 - 120
Bis (2-chloroethoxy) methane	100	90.1		ug/L		90	49 - 165
bis (2-chloroisopropyl) ether	100	95.0		ug/L		95	63 - 139
Bis(2-chloroethyl)ether	100	93.9		ug/L		94	43 - 126
Bis(2-ethylhexyl) phthalate	100	99.3		ug/L		99	29 - 137
Butyl benzyl phthalate	100	92.7		ug/L		93	1 - 140
Chrysene	100	89.5		ug/L		90	44 - 140
Dibenz(a,h)anthracene	100	92.0		ug/L		92	1 - 200
Dibenzofuran	100	92.1		ug/L		92	61 - 120
Diethyl phthalate	100	95.6		ug/L		96	1 - 120
Dimethyl phthalate	100	90.8		ug/L		91	1 - 120
Di-n-butyl phthalate	100	94.7		ug/L		95	8 - 120
Di-n-octyl phthalate	100	94.3		ug/L		94	19 - 132
Fluoranthene	100	87.0		ug/L		87	43 - 121
Fluorene	100	91.1		ug/L		91	70 - 120
Hexachloro-1,3-butadiene	100	80.7		ug/L		81	38 - 120
Hexachlorobenzene	100	87.0		ug/L		87	8 - 142
Hexachlorocyclopentadiene	100	83.9		ug/L		84	46 - 135
Hexachloroethane	100	77.7		ug/L		78	55 - 120
Indeno[1,2,3-cd]pyrene	100	88.6		ug/L		89	1 - 151
Isophorone	100	90.3		ug/L		90	47 - 180
Naphthalene	100	86.5		ug/L		87	36 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-594598/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 597280 — **Prep Batch: 594598**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrobenzene	100	90.2		ug/L		90	54 - 158
N-Nitrosodimethylamine	100	56.4		ug/L		56	38 - 120
N-Nitrosodi-n-propylamine	100	91.0		ug/L		91	14 - 198
N-Nitrosodiphenylamine	100	106		ug/L		106	79 - 127
Pentachlorophenol	100	93.3		ug/L		93	38 - 152
Phenanthrene	100	87.9		ug/L		88	65 - 120
Phenol	100	41.9		ug/L		42	17 - 120
Pyrene	100	94.9		ug/L		95	70 - 120
Pyridine	100	4.16	J *-	ug/L		4	27 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*93*		*33 - 139*
2-Fluorobiphenyl (Surr)	*82*		*33 - 126*
2-Fluorophenol (Surr)	*62*		*12 - 120*
Nitrobenzene-d5 (Surr)	*86*		*36 - 120*
Phenol-d6 (Surr)	*41*		*10 - 120*
p-Terphenyl-d14 (Surr)	*91*		*47 - 131*

Lab Sample ID: LCSD 570-594598/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 597280 — **Prep Batch: 594598**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	55.7	*- *1	ug/L		56	57 - 130	42	30
1,2-Dichlorobenzene	100	49.8	*1	ug/L		50	50 - 120	47	20
1,2-Diphenylhydrazine(as Azobenzene)	100	62.0	*1	ug/L		62	57 - 120	36	20
1,3-Dichlorobenzene	100	49.1	*1	ug/L		49	46 - 120	47	20
1,4-Dichlorobenzene	100	49.8	*1	ug/L		50	47 - 120	46	20
1-Methylnaphthalene	100	60.2	*- *1	ug/L		60	63 - 120	38	20
2,4,5-Trichlorophenol	100	63.7	*1	ug/L		64	62 - 120	38	20
2,4,6-Trichlorophenol	100	63.7	*1	ug/L		64	52 - 129	36	35
2,4-Dichlorophenol	100	65.6	*1	ug/L		66	53 - 122	36	30
2,4-Dimethylphenol	100	62.5		ug/L		62	42 - 120	28	35
2,4-Dinitrophenol	100	58.5		ug/L		59	1 - 173	45	79
2,4-Dinitrotoluene	100	60.8	*1	ug/L		61	48 - 127	37	25
2,6-Dichlorophenol	100	64.7	*1	ug/L		65	64 - 120	36	20
2,6-Dinitrotoluene	100	64.4	*- *1	ug/L		64	68 - 137	35	29
2-Chloronaphthalene	100	60.8	*- *1	ug/L		61	65 - 120	40	15
2-Chlorophenol	100	66.3	*1	ug/L		66	36 - 120	41	37
2-Methylnaphthalene	100	58.0	*- *1	ug/L		58	60 - 120	39	20
2-Methylphenol	100	62.3	*1	ug/L		62	55 - 120	33	20
2-Nitroaniline	100	65.2	*1	ug/L		65	53 - 120	39	20
2-Nitrophenol	100	62.0	*1	ug/L		62	45 - 167	38	33
3,3'-Dichlorobenzidine	100	55.4		ug/L		55	8 - 213	26	65
3/4-Methylphenol	200	107	*1	ug/L		54	41 - 120	33	20
3-Nitroaniline	100	69.1	*1	ug/L		69	62 - 120	24	20
4,6-Dinitro-2-methylphenol	100	60.6		ug/L		61	53 - 130	40	122
4-Bromophenyl phenyl ether	100	57.7	*- *1	ug/L		58	65 - 120	37	26

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-594598/3-A
Matrix: Water
Analysis Batch: 597280

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 594598

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Chloro-3-methylphenol	100	65.9		ug/L		66	41 - 128	35	44
4-Chloroaniline	100	70.2		ug/L		70	53 - 120	11	20
4-Chlorophenyl phenyl ether	100	60.6		ug/L		61	38 - 145	36	36
4-Nitroaniline	100	66.7	*1	ug/L		67	61 - 120	35	20
4-Nitrophenol	100	30.6		ug/L		31	13 - 129	34	79
Acenaphthene	100	58.9	*- *1	ug/L		59	60 - 132	39	29
Acenaphthylene	100	60.2		ug/L		60	54 - 126	37	45
Acetophenone	100	60.6	*1	ug/L		61	45 - 120	37	20
Alpha-Terpineol	100	59.6	*1	ug/L		60	60 - 140	40	30
Aniline	100	49.1	*- *1	ug/L		49	50 - 120	24	20
Anthracene	100	60.1		ug/L		60	43 - 120	35	40
Azobenzene	100	62.0	*1	ug/L		62	57 - 120	36	20
Benzidine	100	ND	*- *1	ug/L		0.2	20 - 143	35	30
Benzo[a]anthracene	100	62.7	*1	ug/L		63	42 - 133	36	32
Benzo[a]pyrene	100	61.1		ug/L		61	32 - 148	39	43
Benzo[b]fluoranthene	100	62.6		ug/L		63	42 - 140	40	43
Benzo[g,h,i]perylene	100	63.6		ug/L		64	1 - 195	39	61
Benzo[k]fluoranthene	100	63.6		ug/L		64	25 - 146	35	38
Benzoic acid	100	26.7	J *1	ug/L		27	20 - 120	40	20
Benzyl alcohol	100	55.7	*1	ug/L		56	47 - 120	39	20
Bis (2-chloroethoxy) methane	100	65.1		ug/L		65	49 - 165	32	32
bis (2-chloroisopropyl) ether	100	62.6		ug/L		63	63 - 139	41	46
Bis(2-chloroethyl)ether	100	58.6		ug/L		59	43 - 126	46	65
Bis(2-ethylhexyl) phthalate	100	66.5		ug/L		66	29 - 137	40	50
Butyl benzyl phthalate	100	64.7		ug/L		65	1 - 140	36	36
Chrysene	100	62.7		ug/L		63	44 - 140	35	53
Dibenz(a,h)anthracene	100	66.3		ug/L		66	1 - 200	33	75
Dibenzofuran	100	62.8	*1	ug/L		63	61 - 120	38	20
Diethyl phthalate	100	65.6		ug/L		66	1 - 120	37	60
Dimethyl phthalate	100	61.8		ug/L		62	1 - 120	38	110
Di-n-butyl phthalate	100	64.9	*1	ug/L		65	8 - 120	37	28
Di-n-octyl phthalate	100	64.9		ug/L		65	19 - 132	37	42
Fluoranthene	100	61.5		ug/L		61	43 - 121	34	40
Fluorene	100	64.5	*- *1	ug/L		64	70 - 120	34	23
Hexachloro-1,3-butadiene	100	51.4	*1	ug/L		51	38 - 120	44	38
Hexachlorobenzene	100	60.8	*1	ug/L		61	8 - 142	35	33
Hexachlorocyclopentadiene	100	52.6	*1	ug/L		53	46 - 135	46	20
Hexachloroethane	100	48.9	*- *1	ug/L		49	55 - 120	46	32
Indeno[1,2,3-cd]pyrene	100	60.6		ug/L		61	1 - 151	38	60
Isophorone	100	62.0		ug/L		62	47 - 180	37	56
Naphthalene	100	54.7	*1	ug/L		55	36 - 120	45	39
Nitrobenzene	100	62.6		ug/L		63	54 - 158	36	37
N-Nitrosodimethylamine	100	36.2	*- *1	ug/L		36	38 - 120	44	20
N-Nitrosodi-n-propylamine	100	60.0		ug/L		60	14 - 198	41	52
N-Nitrosodiphenylamine	100	73.3	*- *1	ug/L		73	79 - 127	36	20
Pentachlorophenol	100	62.8		ug/L		63	38 - 152	39	52
Phenanthrene	100	61.8	*- *1	ug/L		62	65 - 120	35	24
Phenol	100	29.3		ug/L		29	17 - 120	35	39
Pyrene	100	67.2	*- *1	ug/L		67	70 - 120	34	30

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-594598/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 597280 — **Prep Batch: 594598**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Pyridine			100	7.10	J *- *1	ug/L		7	27 - 120	52	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*62*		*33 - 139*
2-Fluorobiphenyl (Surr)	*54*		*33 - 126*
2-Fluorophenol (Surr)	*41*		*12 - 120*
Nitrobenzene-d5 (Surr)	*58*		*36 - 120*
Phenol-d6 (Surr)	*27*		*10 - 120*
p-Terphenyl-d14 (Surr)	*64*		*47 - 131*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 410-669634/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670176 — **Prep Batch: 669634**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.30		ug/L		07/10/25 15:21	07/11/25 17:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*86*		*30 - 187*	*07/10/25 15:21*	*07/11/25 17:30*	*1*
Benzo(a)pyrene-d12 (Surr)	*77*		*32 - 194*	*07/10/25 15:21*	*07/11/25 17:30*	*1*
1-Methylnaphthalene-d10	*74*		*45 - 130*	*07/10/25 15:21*	*07/11/25 17:30*	*1*

Lab Sample ID: LCS 410-669634/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670176 — **Prep Batch: 669634**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			1.00	0.626		ug/L		63	18 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*85*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*78*		*32 - 194*
1-Methylnaphthalene-d10	*69*		*45 - 130*

Lab Sample ID: LCSD 410-669634/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670176 — **Prep Batch: 669634**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			1.00	0.559		ug/L		56	18 - 130	11	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluoranthene-d10 (Surr)	*79*		*30 - 187*
Benzo(a)pyrene-d12 (Surr)	*71*		*32 - 194*
1-Methylnaphthalene-d10	*62*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-598728/53 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 598728

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		50		ug/L			07/17/25 18:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*20 - 144*		*07/17/25 18:57*	*1*

Lab Sample ID: LCS 570-598728/51 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 598728

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			2000	1980		ug/L		99	71 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*20 - 144*

Lab Sample ID: LCSD 570-598728/52 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 598728

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2000	2000		ug/L		100	71 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*20 - 144*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-594401/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 597442 — **Prep Batch: 594401**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.010		ug/L		07/08/25 14:40	07/15/25 14:06	1
4,4'-DDE	ND		0.0050		ug/L		07/08/25 14:40	07/15/25 14:06	1
4,4'-DDT	ND		0.0050		ug/L		07/08/25 14:40	07/15/25 14:06	1
Aldrin	ND		0.0050		ug/L		07/08/25 14:40	07/15/25 14:06	1
alpha-BHC	ND		0.0020		ug/L		07/08/25 14:40	07/15/25 14:06	1
alpha-Chlordane	ND		0.050		ug/L		07/08/25 14:40	07/15/25 14:06	1
beta-BHC	ND		0.0075		ug/L		07/08/25 14:40	07/15/25 14:06	1
Chlordane	ND		0.050		ug/L		07/08/25 14:40	07/15/25 14:06	1
delta-BHC	ND		0.0050		ug/L		07/08/25 14:40	07/15/25 14:06	1
Dieldrin	ND		0.0050		ug/L		07/08/25 14:40	07/15/25 14:06	1
Endosulfan I	ND		0.0020		ug/L		07/08/25 14:40	07/15/25 14:06	1
Endosulfan II	ND		0.010		ug/L		07/08/25 14:40	07/15/25 14:06	1
Endosulfan sulfate	ND		0.0050		ug/L		07/08/25 14:40	07/15/25 14:06	1
Endrin	ND		0.0050		ug/L		07/08/25 14:40	07/15/25 14:06	1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 570-594401/1-A
Matrix: Water
Analysis Batch: 597442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 594401

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		0.050	ug/L		07/08/25 14:40	07/15/25 14:06	1
Endrin ketone	ND		0.0050	ug/L		07/08/25 14:40	07/15/25 14:06	1
gamma-BHC (Lindane)	ND		0.0020	ug/L		07/08/25 14:40	07/15/25 14:06	1
gamma-Chlordane	ND		0.015	ug/L		07/08/25 14:40	07/15/25 14:06	1
Heptachlor	ND		0.0020	ug/L		07/08/25 14:40	07/15/25 14:06	1
Heptachlor epoxide	ND		0.010	ug/L		07/08/25 14:40	07/15/25 14:06	1
Methoxychlor	ND		0.010	ug/L		07/08/25 14:40	07/15/25 14:06	1
Toxaphene	ND		0.10	ug/L		07/08/25 14:40	07/15/25 14:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*93*		*20 - 154*	*07/08/25 14:40*	*07/15/25 14:06*	*1*
Tetrachloro-m-xylene (Surr)	*70*		*20 - 139*	*07/08/25 14:40*	*07/15/25 14:06*	*1*

Lab Sample ID: LCS 570-594401/2-A
Matrix: Water
Analysis Batch: 597442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 594401

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0500	0.0326		ug/L		65	31 - 141
4,4'-DDE	0.0500	0.0298		ug/L		60	30 - 145
4,4'-DDT	0.0500	0.0369		ug/L		74	25 - 160
Aldrin	0.0500	0.0251		ug/L		50	42 - 140
alpha-BHC	0.0500	0.0283		ug/L		57	37 - 140
alpha-Chlordane	0.0500	0.0295	J	ug/L		59	45 - 140
beta-BHC	0.0500	0.0282		ug/L		56	17 - 147
delta-BHC	0.0500	0.0257		ug/L		51	19 - 140
Dieldrin	0.0500	0.0332		ug/L		66	36 - 146
Endosulfan I	0.0500	0.0296		ug/L		59	45 - 153
Endosulfan II	0.0500	0.0331		ug/L		66	1 - 202
Endosulfan sulfate	0.0500	0.0322		ug/L		64	26 - 144
Endrin	0.0500	0.0319		ug/L		64	30 - 147
Endrin aldehyde	0.0500	ND		ug/L		60	50 - 135
Endrin ketone	0.0500	0.0350		ug/L		70	60 - 140
gamma-BHC (Lindane)	0.0500	0.0295		ug/L		59	32 - 140
gamma-Chlordane	0.0500	0.0292		ug/L		58	45 - 140
Heptachlor	0.0500	0.0266		ug/L		53	34 - 140
Heptachlor epoxide	0.0500	0.0300		ug/L		60	37 - 142
Methoxychlor	0.0500	0.0339		ug/L		68	50 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*68*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*56*		*20 - 139*

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCS 570-594401/6-A
Matrix: Water
Analysis Batch: 597442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 594401

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	87		20 - 154
Tetrachloro-m-xylene (Surr)	64		20 - 139

Lab Sample ID: LCSD 570-594401/3-A
Matrix: Water
Analysis Batch: 597442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 594401

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	0.0500	0.0370		ug/L		74	31 - 141	13	39
4,4'-DDE	0.0500	0.0313		ug/L		63	30 - 145	5	35
4,4'-DDT	0.0500	0.0382		ug/L		76	25 - 160	4	42
Aldrin	0.0500	0.0291		ug/L		58	42 - 140	14	35
alpha-BHC	0.0500	0.0328		ug/L		66	37 - 140	15	36
alpha-Chlordane	0.0500	0.0333	J	ug/L		67	45 - 140	12	35
beta-BHC	0.0500	0.0329		ug/L		66	17 - 147	15	44
delta-BHC	0.0500	0.0284		ug/L		57	19 - 140	10	52
Dieldrin	0.0500	0.0358		ug/L		72	36 - 146	7	49
Endosulfan I	0.0500	0.0318		ug/L		64	45 - 153	7	28
Endosulfan II	0.0500	0.0371		ug/L		74	1 - 202	11	53
Endosulfan sulfate	0.0500	0.0382		ug/L		76	26 - 144	17	38
Endrin	0.0500	0.0347		ug/L		69	30 - 147	8	48
Endrin aldehyde	0.0500	0.0364	J	ug/L		73	50 - 135	20	25
Endrin ketone	0.0500	0.0411		ug/L		82	60 - 140	16	30
gamma-BHC (Lindane)	0.0500	0.0332		ug/L		66	32 - 140	12	39
gamma-Chlordane	0.0500	0.0320		ug/L		64	45 - 140	9	35
Heptachlor	0.0500	0.0311		ug/L		62	34 - 140	16	43
Heptachlor epoxide	0.0500	0.0324		ug/L		65	37 - 142	8	26
Methoxychlor	0.0500	0.0417		ug/L		83	50 - 135	20	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	79		20 - 154
Tetrachloro-m-xylene (Surr)	64		20 - 139

Lab Sample ID: LCSD 570-594401/7-A
Matrix: Water
Analysis Batch: 597442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 594401

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	94		20 - 154
Tetrachloro-m-xylene (Surr)	74		20 - 139

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-594401/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 597002 — **Prep Batch: 594401**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		0.10		ug/L		07/08/25 14:40	07/15/25 07:45	1
Aroclor-1221	ND		0.10		ug/L		07/08/25 14:40	07/15/25 07:45	1
Aroclor-1232	ND		0.10		ug/L		07/08/25 14:40	07/15/25 07:45	1
Aroclor-1242	ND		0.10		ug/L		07/08/25 14:40	07/15/25 07:45	1
Aroclor-1248	ND		0.10		ug/L		07/08/25 14:40	07/15/25 07:45	1
Aroclor-1254	ND		0.10		ug/L		07/08/25 14:40	07/15/25 07:45	1
Aroclor-1260	ND		0.10		ug/L		07/08/25 14:40	07/15/25 07:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*85*		*20 - 154*	*07/08/25 14:40*	*07/15/25 07:45*	*1*
Tetrachloro-m-xylene (Surr)	*72*		*20 - 139*	*07/08/25 14:40*	*07/15/25 07:45*	*1*

Lab Sample ID: LCS 570-594401/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 597002 — **Prep Batch: 594401**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			0.200	0.192		ug/L		96	50 - 140		
Aroclor-1260			0.200	0.183		ug/L		92	8 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*84*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*73*		*20 - 139*

Lab Sample ID: LCSD 570-594401/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 597002 — **Prep Batch: 594401**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor-1016			0.200	0.193		ug/L		97	50 - 140	1	36
Aroclor-1260			0.200	0.208		ug/L		104	8 - 140	13	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*94*		*20 - 154*
Tetrachloro-m-xylene (Surr)	*80*		*20 - 139*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-671193/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671514 — **Prep Batch: 671193**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L		07/15/25 04:42	07/15/25 17:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr)	*101*		*46 - 136*	*07/15/25 04:42*	*07/15/25 17:39*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: MB 410-671193/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671514 — **Prep Batch: 671193**

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr)	100		46 - 136	07/15/25 04:42	07/15/25 17:39	1

Lab Sample ID: LCS 410-671193/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671514 — **Prep Batch: 671193**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylene Dibromide	0.129	0.132		ug/L		102	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr)	106		46 - 136
1,1,2,2-Tetrachloroethane (Surr)	104		46 - 136

Lab Sample ID: LCSD 410-671193/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671514 — **Prep Batch: 671193**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide	0.129	0.125		ug/L		97	60 - 140	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr)	102		46 - 136
1,1,2,2-Tetrachloroethane (Surr)	102		46 - 136

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-594846/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606306 — **Prep Batch: 594846**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Crude Oil (C7-C44)	ND		250	ug/L		07/09/25 11:59	08/03/25 16:41	1
Diesel Range Organics [C10-C28]	ND		50	ug/L		07/09/25 11:59	08/03/25 16:41	1
C24-C44	ND		250	ug/L		07/09/25 11:59	08/03/25 16:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	105		53 - 151	07/09/25 11:59	08/03/25 16:41	1

Lab Sample ID: LCS 570-594846/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606306 — **Prep Batch: 594846**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	4000	4250		ug/L		106	65 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane (Surr)	109		53 - 151

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: LCS 570-594846/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606306 — **Prep Batch: 594846**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TPH as Crude Oil (C7-C44)	4000	3910		ug/L		98	43 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*113*		*53 - 151*

Lab Sample ID: LCSD 570-594846/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606306 — **Prep Batch: 594846**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	4000	4010		ug/L		100	65 - 129	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*112*		*53 - 151*

Lab Sample ID: LCSD 570-594846/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606306 — **Prep Batch: 594846**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Crude Oil (C7-C44)	4000	3680		ug/L		92	43 - 131	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*107*		*53 - 151*

Method: 8015C - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 410-670970/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670988 — **Prep Batch: 670970**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		13	mg/L		07/14/25 14:10	07/14/25 18:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*92*		*10 - 130*	*07/14/25 14:10*	*07/14/25 18:45*	*1*

Lab Sample ID: LCS 410-670970/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670988 — **Prep Batch: 670970**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylene glycol	100	96.1		mg/L		96	75 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Butanediol	*97*		*10 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-594637/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 594637

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10		mg/L			07/09/25 07:07	1
Chloride	ND		1.0		mg/L			07/09/25 07:07	1
Sulfate	ND		1.0		mg/L			07/09/25 07:07	1

Lab Sample ID: LCS 570-594637/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 594637

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromide			5.00	4.81		mg/L		96	90 - 110		
Chloride			50.0	49.9		mg/L		100	90 - 110		
Sulfate			50.0	50.1		mg/L		100	90 - 110		

Lab Sample ID: LCSD 570-594637/7 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 594637

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide			5.00	4.72		mg/L		94	90 - 110	2	15
Chloride			50.0	49.9		mg/L		100	90 - 110	0	15
Sulfate			50.0	50.0		mg/L		100	90 - 110	0	15

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-8067/29 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8067

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			07/14/25 13:02	1

Lab Sample ID: MB 350-8067/30 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8067

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			07/14/25 13:07	1

Lab Sample ID: MB 350-8067/31 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8067

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50		ng/L			07/14/25 13:11	1

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: LCS 350-8067/121 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8067

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.57		ng/L		91	77 - 123

Lab Sample ID: LCSD 350-8067/122 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8067

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.60		ng/L		92	77 - 123	1	24

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-8055/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8122 — **Prep Batch: 8055**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.020	ug/L		07/14/25 17:01	07/16/25 00:26	1
Copper	ND		0.50	ug/L		07/14/25 17:01	07/16/25 00:26	1
Lead	ND		0.050	ug/L		07/14/25 17:01	07/16/25 00:26	1
Zinc	ND		1.0	ug/L		07/14/25 17:01	07/16/25 00:26	1
Iron	ND		5.0	ug/L		07/14/25 17:01	07/16/25 00:26	1
Manganese	ND		0.050	ug/L		07/14/25 17:01	07/16/25 00:26	1
Selenium	ND		0.70	ug/L		07/14/25 17:01	07/16/25 00:26	1
Vanadium	ND		1.0	ug/L		07/14/25 17:01	07/16/25 00:26	1
Silver	ND		1.0	ug/L		07/14/25 17:01	07/16/25 00:26	1

Lab Sample ID: LCS 350-8055/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8122 — **Prep Batch: 8055**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	1.25	1.32		ug/L		106	70 - 130
Copper	12.5	13.2		ug/L		105	70 - 130
Lead	2.50	2.57		ug/L		103	70 - 130
Zinc	12.5	14.1		ug/L		113	70 - 130
Iron	62.5	59.2		ug/L		95	70 - 130
Manganese	12.5	16.0		ug/L		128	70 - 130
Selenium	12.5	13.1		ug/L		105	70 - 130
Vanadium	12.5	12.8		ug/L		102	70 - 130
Silver	6.25	5.99		ug/L		96	70 - 130

Lab Sample ID: LCSD 350-8055/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8122 — **Prep Batch: 8055**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	1.25	1.25		ug/L		100	70 - 130	6	20
Copper	12.5	12.3		ug/L		99	70 - 130	6	20
Lead	2.50	2.49		ug/L		99	70 - 130	3	20
Zinc	12.5	13.1		ug/L		105	70 - 130	7	20

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCSD 350-8055/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8122 — **Prep Batch: 8055**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	62.5	61.6		ug/L		99	70 - 130	4	20
Manganese	12.5	14.1		ug/L		113	70 - 130	12	20
Selenium	12.5	13.1		ug/L		105	70 - 130	0	20
Vanadium	12.5	12.5		ug/L		100	70 - 130	2	20
Silver	6.25	5.95		ug/L		95	70 - 130	1	20

Lab Sample ID: MB 350-8462/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	ug/L		07/29/25 14:14	07/30/25 16:26	1
Chromium	ND		1.0	ug/L		07/29/25 14:14	07/30/25 16:26	1
Barium	ND		0.50	ug/L		07/29/25 14:14	07/30/25 16:26	1

Lab Sample ID: MB 350-8462/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	ug/L		07/29/25 14:14	07/30/25 16:40	1
Chromium	ND		1.0	ug/L		07/29/25 14:14	07/30/25 16:40	1
Barium	ND		0.50	ug/L		07/29/25 14:14	07/30/25 16:40	1

Lab Sample ID: LCS 350-8462/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	12.5	12.3		ug/L		98	70 - 130
Chromium	12.5	12.4		ug/L		99	70 - 130
Barium	12.5	11.9		ug/L		95	70 - 130

Lab Sample ID: LCSD 350-8462/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8530 — **Prep Batch: 8462**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	12.1		ug/L		96	70 - 130	2	20
Chromium	12.5	12.5		ug/L		100	70 - 130	1	20
Barium	12.5	11.5		ug/L		92	70 - 130	3	20

Lab Sample ID: MB 350-8663/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		5.0	ug/L		08/06/25 00:00	08/06/25 23:04	1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-8663/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		5.0		ug/L		08/06/25 00:00	08/06/25 23:18	1

Lab Sample ID: LCS 350-8663/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum			125	118		ug/L		94	70 - 130		

Lab Sample ID: LCSD 350-8663/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8697 — **Prep Batch: 8663**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum			125	121		ug/L		97	70 - 130	2	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 350-8058/24-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 8104 — **Prep Batch: 8058**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.50		mg/L		07/14/25 18:59	07/15/25 17:07	1
Iron	ND		0.50		mg/L		07/14/25 18:59	07/15/25 17:07	1
Magnesium	ND		0.50		mg/L		07/14/25 18:59	07/15/25 17:07	1
Potassium	ND		3.3		mg/L		07/14/25 18:59	07/15/25 17:07	1
SiO2, Silica	ND		2.3		mg/L		07/14/25 18:59	07/15/25 17:07	1
Lithium	ND		0.10		mg/L		07/14/25 18:59	07/15/25 17:07	1

Lab Sample ID: MB 350-8058/24-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 8154 — **Prep Batch: 8058**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.50		mg/L		07/14/25 18:59	07/16/25 16:27	1
Iron	ND		0.50		mg/L		07/14/25 18:59	07/16/25 16:27	1
Magnesium	ND		0.50		mg/L		07/14/25 18:59	07/16/25 16:27	1
Potassium	ND		3.3		mg/L		07/14/25 18:59	07/16/25 16:27	1
Sodium	ND		0.60		mg/L		07/14/25 18:59	07/16/25 16:27	1
SiO2, Silica	ND		2.3		mg/L		07/14/25 18:59	07/16/25 16:27	1
Lithium	ND		0.10		mg/L		07/14/25 18:59	07/16/25 16:27	1

Lab Sample ID: LCS 350-8058/25-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 8104 — **Prep Batch: 8058**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium			20.0	18.8		mg/L		94	80 - 120		
Iron			20.0	18.8		mg/L		94	80 - 120		

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 350-8058/25-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 8104 — **Prep Batch: 8058**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	20.0	18.2		mg/L		91	80 - 120
Potassium	20.0	18.0		mg/L		90	80 - 120
SiO2, Silica	21.4	18.6		mg/L		87	80 - 120
Lithium	1.00	0.871		mg/L		87	80 - 120

Lab Sample ID: LCS 350-8058/25-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 8154 — **Prep Batch: 8058**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	20.0	18.7		mg/L		93	80 - 120
Iron	20.0	18.9		mg/L		95	80 - 120
Magnesium	20.0	18.4		mg/L		92	80 - 120
Potassium	20.0	18.6		mg/L		93	80 - 120
Sodium	20.0	18.6		mg/L		93	80 - 120
SiO2, Silica	21.4	18.8		mg/L		88	80 - 120
Lithium	1.00	0.876		mg/L		88	80 - 120

Lab Sample ID: MB 570-607221/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium	ND		0.010	mg/L			08/06/25 14:54	1

Lab Sample ID: LCS 570-607221/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Strontium	0.500	0.507		mg/L		101	80 - 120

Lab Sample ID: LCSD 570-607221/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607956

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Strontium	0.500	0.495		mg/L		99	80 - 120	3	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-607199/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0	ug/L			08/05/25 17:27	1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-607199/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	80.0	80.9		ug/L		101	80 - 120

Lab Sample ID: LCSD 570-607199/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 607416

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium	80.0	84.2		ug/L		105	80 - 120	4	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-597260/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600233 — **Prep Batch: 597260**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0	mg/L		07/15/25 07:50	07/21/25 18:59	1

Lab Sample ID: LCS 570-597260/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600233 — **Prep Batch: 597260**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM: Oil and Grease	40.0	36.30		mg/L		91	78 - 114

Lab Sample ID: LCSD 570-597260/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600233 — **Prep Batch: 597260**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease	40.0	31.60		mg/L		79	78 - 114	14	18

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-594960/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 595605 — **Prep Batch: 594960**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	mg/L		07/09/25 14:50	07/10/25 17:22	1

Lab Sample ID: LCS 570-594960/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 595605 — **Prep Batch: 594960**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	5.00	4.83		mg/L		97	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCSD 570-594960/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 595605 — **Prep Batch: 594960**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen			5.00	4.85		mg/L		97	90 - 110	0	20

Method: 410.4 - COD

Lab Sample ID: MB 570-606240/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L		08/03/25 08:40	08/03/25 08:19	1

Lab Sample ID: LCS 570-606240/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chemical Oxygen Demand			50.0	49.9		mg/L		100	90 - 110		

Lab Sample ID: LCSD 570-606240/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606279 — **Prep Batch: 606240**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand			50.0	49.9		mg/L		100	90 - 110	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 570-598168/12 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 598168

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		5.0		mg/L			07/16/25 15:14	1
Bicarbonate (as CaCO3)	ND		5.0		mg/L			07/16/25 15:14	1
Carbonate (as CaCO3)	ND		5.0		mg/L			07/16/25 15:14	1
Hydroxide (as CaCO3)	ND		5.0		mg/L			07/16/25 15:14	1

Lab Sample ID: LCS 570-598168/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 598168

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity, Total (As CaCO3)			106	99.5		mg/L		94	78 - 110		

Lab Sample ID: LCSD 570-598168/10 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 598168

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)			106	94.3		mg/L		89	78 - 110	5	10

Method: SM 2520B - Salinity

Lab Sample ID: LCS 570-600127/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Salinity	35.0	35.5		psu		101	95 - 105

Lab Sample ID: LCSD 570-600127/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 600127

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Salinity	35.0	36.5		psu		104	95 - 105	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-595082/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 595082

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	mg/L			07/09/25 20:03	1

Lab Sample ID: LCS 570-595082/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 595082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	954		mg/L		95	85 - 110

Lab Sample ID: LCSD 570-595082/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 595082

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	948		mg/L		95	85 - 110	1	10

Method: SM 5310C - TOC

Lab Sample ID: MB 570-603288/37 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603288

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Non-Purgable Organic	ND		0.50	mg/L			07/26/25 12:46	1

Lab Sample ID: LCS 570-603288/38 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon, Non-Purgable Organic	5.03	5.11		mg/L		102	85 - 115

Method: SM 5310C - TOC (Continued)

Lab Sample ID: LCSD 570-603288/39 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603288

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon, Non-Purgable Organic			5.03	5.10		mg/L		101	85 - 115	0	15

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-727048/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 727605 — **Prep Batch: 727048**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Beta	0.1867	U	0.567	0.567	4.00	0.954	pCi/L	07/14/25 07:57	07/16/25 07:37	1

Lab Sample ID: LCSB 160-727048/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 727605 — **Prep Batch: 727048**

Analyte			Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Beta			69.5	72.37		7.76	4.00	0.809	pCi/L	104	75 - 125		

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-726866/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 730567 — **Prep Batch: 726866**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.05416	U	0.191	0.191	1.00	0.402	pCi/L	07/11/25 08:30	08/05/25 15:22	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*30 - 110*	*07/11/25 08:30*	*08/05/25 15:22*	*1*

Lab Sample ID: LCS 160-726866/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 730567 — **Prep Batch: 726866**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	8.447		1.16	1.00	0.351	pCi/L	88	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.0*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-726868/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 730567 — **Prep Batch: 726868**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2446	U	0.349	0.350	1.00	0.587	pCi/L	07/11/25 08:33	08/05/25 11:44	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*30 - 110*	*07/11/25 08:33*	*08/05/25 11:44*	*1*
Y Carrier	*81.1*		*30 - 110*	*07/11/25 08:33*	*08/05/25 11:44*	*1*

Lab Sample ID: LCS 160-726868/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 730567 — **Prep Batch: 726868**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.19	9.515		1.28	1.00	0.530	pCi/L	104	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.0*		*30 - 110*
Y Carrier	*83.0*		*30 - 110*

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-727806/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729769 — **Prep Batch: 727806**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.07886	U	0.174	0.174	3.00	0.181	pCi/L	07/17/25 13:45	07/30/25 14:46	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*73.5*		*30 - 110*	*07/17/25 13:45*	*07/30/25 14:46*	*1*
Y Carrier	*88.2*		*30 - 110*	*07/17/25 13:45*	*07/30/25 14:46*	*1*

Lab Sample ID: LCS 160-727806/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729769 — **Prep Batch: 727806**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Strontium-90			6.95	6.975		0.771	3.00	0.165	pCi/L	100	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*77.2*		*30 - 110*
Y Carrier	*93.1*		*30 - 110*

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: LCSD 160-727806/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729769 — **Prep Batch: 727806**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Strontium-90			6.95	7.379		0.822	3.00	0.179	pCi/L	106	75 - 125	6	25

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Sr Carrier	*77.8*		*30 - 110*
Y Carrier	*86.4*		*30 - 110*

Method: SM7110C - Gross Alpha by Co-Precipitation

Lab Sample ID: MB 160-727051/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 727411 — **Prep Batch: 727051**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.5074	U	0.439	0.443	3.00	0.640	pCi/L	07/14/25 08:02	07/15/25 20:41	1

Lab Sample ID: LCS 160-727051/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 727411 — **Prep Batch: 727051**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Alpha			39.6	43.12		5.78	3.00	0.974	pCi/L	109	80 - 120		

Lab Sample ID: LCSD 160-727051/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 727411 — **Prep Batch: 727051**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Gross Alpha			39.6	39.31		5.35	3.00	0.732	pCi/L	99	80 - 120	9	25

GC/MS VOA

Analysis Batch: 596358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	624.1	
MB 570-596358/5	Method Blank	Total/NA	Water	624.1	
LCS 570-596358/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 570-596358/3	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 594598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	625.1	
MB 570-594598/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-594598/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-594598/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 597280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	625.1	594598
MB 570-594598/1-A	Method Blank	Total/NA	Water	625.1	594598
LCS 570-594598/2-A	Lab Control Sample	Total/NA	Water	625.1	594598
LCSD 570-594598/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	594598

Prep Batch: 669634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	625.1	
MB 410-669634/1-A	Method Blank	Total/NA	Water	625.1	
LCS 410-669634/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 410-669634/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 670176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	625.1 SIM	669634
MB 410-669634/1-A	Method Blank	Total/NA	Water	625.1 SIM	669634
LCS 410-669634/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	669634
LCSD 410-669634/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	669634

GC VOA

Analysis Batch: 598728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	8015B	
MB 570-598728/53	Method Blank	Total/NA	Water	8015B	
LCS 570-598728/51	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-598728/52	Lab Control Sample Dup	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 594401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	608	
MB 570-594401/1-A	Method Blank	Total/NA	Water	608	
LCS 570-594401/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 570-594401/4-A	Lab Control Sample	Total/NA	Water	608	

GC Semi VOA (Continued)

Prep Batch: 594401 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-594401/6-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-594401/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 570-594401/5-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 570-594401/7-A	Lab Control Sample Dup	Total/NA	Water	608	

Prep Batch: 594846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	3510C	
MB 570-594846/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-594846/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 570-594846/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-594846/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 570-594846/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 597002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	608.3	594401
MB 570-594401/1-A	Method Blank	Total/NA	Water	608.3	594401
LCS 570-594401/4-A	Lab Control Sample	Total/NA	Water	608.3	594401
LCSD 570-594401/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	594401

Analysis Batch: 597442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	608.3	594401
MB 570-594401/1-A	Method Blank	Total/NA	Water	608.3	594401
LCS 570-594401/2-A	Lab Control Sample	Total/NA	Water	608.3	594401
LCS 570-594401/6-A	Lab Control Sample	Total/NA	Water	608.3	594401
LCSD 570-594401/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	594401
LCSD 570-594401/7-A	Lab Control Sample Dup	Total/NA	Water	608.3	594401

Analysis Batch: 606306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	8015B	594846
MB 570-594846/1-A	Method Blank	Total/NA	Water	8015B	594846
LCS 570-594846/2-A	Lab Control Sample	Total/NA	Water	8015B	594846
LCS 570-594846/4-A	Lab Control Sample	Total/NA	Water	8015B	594846
LCSD 570-594846/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	594846
LCSD 570-594846/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	594846

Prep Batch: 670970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	8015 DAI Prep	
MB 410-670970/1-A	Method Blank	Total/NA	Water	8015 DAI Prep	
LCS 410-670970/2-A	Lab Control Sample	Total/NA	Water	8015 DAI Prep	

Analysis Batch: 670988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	8015C	670970
MB 410-670970/1-A	Method Blank	Total/NA	Water	8015C	670970
LCS 410-670970/2-A	Lab Control Sample	Total/NA	Water	8015C	670970

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

GC Semi VOA

Prep Batch: 671193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	8011	
MB 410-671193/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-671193/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-671193/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 671514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	8011	671193
MB 410-671193/1-A	Method Blank	Total/NA	Water	8011	671193
LCS 410-671193/2-A	Lab Control Sample	Total/NA	Water	8011	671193
LCSD 410-671193/3-A	Lab Control Sample Dup	Total/NA	Water	8011	671193

HPLC/IC

Analysis Batch: 594637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	300.0	
380-159048-1 - DL	Well 15 Step	Total/NA	Water	300.0	
380-159048-1 - DL2	Well 15 Step	Total/NA	Water	300.0	
MB 570-594637/5	Method Blank	Total/NA	Water	300.0	
LCS 570-594637/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-594637/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 8055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	1640	
MB 350-8055/1-A	Method Blank	Total/NA	Water	1640	
LCS 350-8055/2-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8055/3-A	Lab Control Sample Dup	Total/NA	Water	1640	

Prep Batch: 8058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	3005A	
MB 350-8058/24-A	Method Blank	Total Recoverable	Water	3005A	
LCS 350-8058/25-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 8067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	1631E	
MB 350-8067/29	Method Blank	Total/NA	Water	1631E	
MB 350-8067/30	Method Blank	Total/NA	Water	1631E	
MB 350-8067/31	Method Blank	Total/NA	Water	1631E	
LCS 350-8067/121	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-8067/122	Lab Control Sample Dup	Total/NA	Water	1631E	

Analysis Batch: 8104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	6010D	8058
MB 350-8058/24-A	Method Blank	Total Recoverable	Water	6010D	8058
LCS 350-8058/25-A	Lab Control Sample	Total Recoverable	Water	6010D	8058

Metals

Analysis Batch: 8122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	1640	8055
MB 350-8055/1-A	Method Blank	Total/NA	Water	1640	8055
LCS 350-8055/2-A	Lab Control Sample	Total/NA	Water	1640	8055
LCSD 350-8055/3-A	Lab Control Sample Dup	Total/NA	Water	1640	8055

Analysis Batch: 8154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	6010D	8058
MB 350-8058/24-A	Method Blank	Total Recoverable	Water	6010D	8058
LCS 350-8058/25-A	Lab Control Sample	Total Recoverable	Water	6010D	8058

Analysis Batch: 8184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	6010D	8058

Prep Batch: 8462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	1640	
MB 350-8462/1-A	Method Blank	Total/NA	Water	1640	
MB 350-8462/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-8462/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8462/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	1640	8462
MB 350-8462/1-A	Method Blank	Total/NA	Water	1640	8462
MB 350-8462/2-A	Method Blank	Total/NA	Water	1640	8462
LCS 350-8462/3-A	Lab Control Sample	Total/NA	Water	1640	8462
LCSD 350-8462/4-A	Lab Control Sample Dup	Total/NA	Water	1640	8462

Prep Batch: 8663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	1640	
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 8697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	1640	8663
MB 350-8663/1-A	Method Blank	Total/NA	Water	1640	8663
MB 350-8663/2-A	Method Blank	Total/NA	Water	1640	8663
LCS 350-8663/3-A	Lab Control Sample	Total/NA	Water	1640	8663
LCSD 350-8663/4-A	Lab Control Sample Dup	Total/NA	Water	1640	8663

Filtration Batch: 607199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	Filtration	
MB 570-607199/1-A	Method Blank	Dissolved	Water	Filtration	

Metals (Continued)

Filtration Batch: 607199 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-607199/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-607199/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Filtration Batch: 607221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	Filtration	
MB 570-607221/1-A	Method Blank	Dissolved	Water	Filtration	
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	Filtration	

Analysis Batch: 607416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	6020	607199
MB 570-607199/1-A	Method Blank	Dissolved	Water	6020	607199
LCS 570-607199/2-A	Lab Control Sample	Dissolved	Water	6020	607199
LCSD 570-607199/3-A	Lab Control Sample Dup	Dissolved	Water	6020	607199

Analysis Batch: 607956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-607221/1-A	Method Blank	Dissolved	Water	6010D	607221
LCS 570-607221/2-A	Lab Control Sample	Dissolved	Water	6010D	607221
LCSD 570-607221/3-A	Lab Control Sample Dup	Dissolved	Water	6010D	607221

Analysis Batch: 608021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Dissolved	Water	6010D	607221

General Chemistry

Prep Batch: 594960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	351.2	
MB 570-594960/3-A	Method Blank	Total/NA	Water	351.2	
LCS 570-594960/4-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-594960/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	

Analysis Batch: 595082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	SM 2540C	
MB 570-595082/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-595082/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-595082/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Analysis Batch: 595605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	351.2	594960
MB 570-594960/3-A	Method Blank	Total/NA	Water	351.2	594960
LCS 570-594960/4-A	Lab Control Sample	Total/NA	Water	351.2	594960
LCSD 570-594960/5-A	Lab Control Sample Dup	Total/NA	Water	351.2	594960

General Chemistry

Prep Batch: 597260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	1664A	
MB 570-597260/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-597260/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-597260/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 598168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	SM 2320B	
MB 570-598168/12	Method Blank	Total/NA	Water	SM 2320B	
LCS 570-598168/9	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 570-598168/10	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 600127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	SM 2520B	
LCS 570-600127/3	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 570-600127/4	Lab Control Sample Dup	Total/NA	Water	SM 2520B	

Analysis Batch: 600233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	1664A	597260
MB 570-597260/1-A	Method Blank	Total/NA	Water	1664A	597260
LCS 570-597260/2-A	Lab Control Sample	Total/NA	Water	1664A	597260
LCSD 570-597260/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	597260

Analysis Batch: 603288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	SM 5310C	
MB 570-603288/37	Method Blank	Total/NA	Water	SM 5310C	
LCS 570-603288/38	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 570-603288/39	Lab Control Sample Dup	Total/NA	Water	SM 5310C	

Prep Batch: 606240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	410.4	
MB 570-606240/3-A	Method Blank	Total/NA	Water	410.4	
LCS 570-606240/4-A	Lab Control Sample	Total/NA	Water	410.4	
LCSD 570-606240/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 606279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	410.4	606240
MB 570-606240/3-A	Method Blank	Total/NA	Water	410.4	606240
LCS 570-606240/4-A	Lab Control Sample	Total/NA	Water	410.4	606240
LCSD 570-606240/5-A	Lab Control Sample Dup	Total/NA	Water	410.4	606240

Rad

Prep Batch: 726866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 726866 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 160-726866/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-726866/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 726868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	PrecSep_0	
MB 160-726868/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-726868/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 727048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	Evaporation	
MB 160-727048/1-A	Method Blank	Total/NA	Water	Evaporation	
LCSB 160-727048/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

Prep Batch: 727051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	Coprecipitation	
MB 160-727051/1-A	Method Blank	Total/NA	Water	Coprecipitation	
LCS 160-727051/2-A	Lab Control Sample	Total/NA	Water	Coprecipitation	
LCSD 160-727051/3-A	Lab Control Sample Dup	Total/NA	Water	Coprecipitation	

Prep Batch: 727806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159048-1	Well 15 Step	Total/NA	Water	PrecSep-7	
MB 160-727806/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-727806/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	
LCSD 160-727806/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-7	

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Client Sample ID: Well 15 Step

Date Collected: 07/03/25 10:13
Date Received: 07/08/25 10:04

Lab Sample ID: 380-159048-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	596358	VYF4	EET CAL 4	07/12/25 16:35
Total/NA	Prep	625.1			594598	H1SH	EET CAL 4	07/09/25 05:16
Total/NA	Analysis	625.1		1	597280	AX7Z	EET CAL 4	07/15/25 13:15
Total/NA	Prep	625.1			669634	T9CY	ELLE	07/10/25 15:21
Total/NA	Analysis	625.1 SIM		1	670176	TB8M	ELLE	07/11/25 18:15
Total/NA	Analysis	8015B		1	598728	A9VE	EET CAL 4	07/17/25 19:28
Total/NA	Prep	608			594401	OAJ3	EET CAL 4	07/09/25 07:31
Total/NA	Analysis	608.3		1	597442	N5Y3	EET CAL 4	07/15/25 17:55
Total/NA	Prep	608			594401	OAJ3	EET CAL 4	07/09/25 07:31
Total/NA	Analysis	608.3		1	597002	SP9M	EET CAL 4	07/15/25 07:26
Total/NA	Prep	8011			671193	UMAD	ELLE	07/15/25 04:42
Total/NA	Analysis	8011		1	671514	URS0	ELLE	07/15/25 19:04
Total/NA	Prep	3510C			594846	TVD6	EET CAL 4	07/09/25 11:59
Total/NA	Analysis	8015B		1	606306	H6FE	EET CAL 4	08/03/25 18:30
Total/NA	Prep	8015 DAI Prep			670970	WZ6J	ELLE	07/14/25 14:10
Total/NA	Analysis	8015C		1	670988	LXF2	ELLE	07/14/25 21:25
Total/NA	Analysis	300.0		20	594637	UIP1	EET CAL 4	07/09/25 10:38
Total/NA	Analysis	300.0	DL	100	594637	UIP1	EET CAL 4	07/09/25 12:35
Total/NA	Analysis	300.0	DL2	1000	594637	UIP1	EET CAL 4	07/09/25 13:43
Dissolved	Analysis	1631E		1	8067	CL	EET SSM	07/14/25 20:29
Dissolved	Prep	1640			8055	COW	EET SSM	07/14/25 17:01
Dissolved	Analysis	1640		1	8122	COW	EET SSM	07/16/25 03:58
Dissolved	Prep	1640			8462	V1R	EET SSM	07/29/25 14:14
Dissolved	Analysis	1640		1	8530	V1R	EET SSM	07/30/25 23:02
Dissolved	Prep	1640			8663	V1R	EET SSM	08/06/25 00:00
Dissolved	Analysis	1640		1	8697	CL	EET SSM	08/07/25 01:53
Dissolved	Filtration	Filtration			607221	F4JD	EET CAL 4	08/05/25 12:19
Dissolved	Analysis	6010D		5	608021	P1R	EET CAL 4	08/06/25 16:46
Dissolved	Prep	3005A			8058	RMN	EET SSM	07/14/25 18:59
Dissolved	Analysis	6010D		1	8104	JLS	EET SSM	07/15/25 17:33
Dissolved	Prep	3005A			8058	RMN	EET SSM	07/14/25 18:59
Dissolved	Analysis	6010D		5	8154	JLS	EET SSM	07/16/25 16:49
Dissolved	Prep	3005A			8058	RMN	EET SSM	07/14/25 18:59
Dissolved	Analysis	6010D		100	8184	JLS	EET SSM	07/17/25 17:08
Dissolved	Filtration	Filtration			607199	F4JD	EET CAL 4	08/05/25 12:04
Dissolved	Analysis	6020		20	607416	P1R	EET CAL 4	08/05/25 17:12
Total/NA	Prep	1664A			597260	S7HP	EET CAL 4	07/15/25 08:43
Total/NA	Analysis	1664A		1	600233	LM3A	EET CAL 4	07/21/25 18:59
Total/NA	Prep	351.2			594960	ZL7L	EET CAL 4	07/09/25 14:50
Total/NA	Analysis	351.2		1	595605	ZL7L	EET CAL 4	07/10/25 17:26
Total/NA	Analysis	410.4		1	606279	TP6R	EET CAL 4	08/03/25 08:20
Total/NA	Prep	410.4			606240	TP6R	EET CAL 4	08/03/25 08:40
Total/NA	Analysis	SM 2320B		1	598168	LNW3	EET CAL 4	07/16/25 16:30

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Client Sample ID: Well 15 Step

Date Collected: 07/03/25 10:13
Date Received: 07/08/25 10:04

Lab Sample ID: 380-159048-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2520B		1	600127	GG0B	EET CAL 4	07/21/25 15:13
Total/NA	Analysis	SM 2540C		1	595082	ZL7L	EET CAL 4	07/09/25 20:03
Total/NA	Analysis	SM 5310C		1	603288	U8XP	EET CAL 4	07/27/25 04:24
Total/NA	Prep	Evaporation			727048	MEH	EET SL	07/14/25 07:57
Total/NA	Analysis	900.0		1	727605	SWS	EET SL	07/16/25 07:37
Total/NA	Prep	PrecSep-21			726866	JTR	EET SL	07/11/25 08:30
Total/NA	Analysis	903.0		1	730567	SWS	EET SL	08/05/25 15:22
Total/NA	Prep	PrecSep_0			726868	JTR	EET SL	07/11/25 08:33
Total/NA	Analysis	904.0		1	730567	SWS	EET SL	08/05/25 11:44
Total/NA	Prep	PrecSep-7			727806	TYB	EET SL	07/17/25 13:45
Total/NA	Analysis	905		1	729769	SWS	EET SL	07/30/25 14:46
Total/NA	Analysis	Ra226_Ra228 Pos		1	730462	EMH	EET SL	08/06/25 12:31
Total/NA	Prep	Coprecipitation			727051	MEH	EET SL	07/14/25 08:02
Total/NA	Analysis	SM7110C		1	727415	SWS	EET SL	07/15/25 21:03

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	07-28-25
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-07-25
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	08-10-25
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA011	06-30-26
New York	NELAP	10670	07-15-25
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	07-23-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	07-20-25
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	07-24-25
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-08-26
Florida	NELAP	E87575	06-30-26
Louisiana (All)	NELAP	03073	07-01-26
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-26
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167-008	07-08-26
US Fish & Wildlife	US Federal Programs	A20571	06-30-26
USDA	US Federal Programs	525-23-4-22573	01-24-28

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25 *
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-25 *
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-25 *
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-25 *
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	08-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25 *
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	ELLE
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
608.3	Organochlorine Pesticides in Water	EPA	EET CAL 4
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CAL 4
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
8015C	Glycols- Direct Injection (GC/FID)	SW846	ELLE
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1640	Metals (ICPMS)	EPA	EET SSM
6010D	Metals (ICP)	SW846	EET CAL 4
6010D	Metals (ICP)	SW846	EET SSM
6020	Metals (ICP/MS)	SW846	EET CAL 4
1664A	HEM and SGT-HEM	1664A	EET CAL 4
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
410.4	COD	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EET CAL 4
SM 2520B	Salinity	SM	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
SM 5310C	TOC	SM	EET CAL 4
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
SM7110C	Gross Alpha by Co-Precipitation	SM	EET SL
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SSM
351.2	Nitrogen, Total Kjeldahl	EPA	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
410.4	COD	EPA	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
625.1	Liquid-Liquid Extraction	40CFR136A	ELLE
8011	Microextraction	SW846	ELLE
8015 DAI Prep	Preparation, Direct Aqueous Injection	SW846	ELLE
Coprecipitation	Preparation, Coprecipitation	None	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
Filtration	Sample Filtration	None	EET CAL 4
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Method	Method Description	Protocol	Laboratory

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater ", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159048-1
SDG: Well 15 Step

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-159048-1	Well 15 Step	Water	07/03/25 10:13	07/08/25 10:04	Hawaii

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

380-159048 COC

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s)	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: INTERA	PWSID			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI, 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #			
Email: jordanm@intera.com	WO #			
Project Name: Kalaeloa Desalination	Project #:			
Site	SSOW#			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B, 300, SM2520B, SM4500_SiO2, Br, Cl, F, SO4, Si, Salinity, Alkalinity	351.2- Total Kjeldahl Nitrogen (TKN)	410.4_LL - Low Level Chemical Oxygen Demand (COD)	SM5310D - Total Organic Carbon (TOC)	SM7110C - Gross Alpha by Co-Precip	900.0 - Gross Beta Only	903.0 Ra226, 905_Sr90	904.0 - Radium-228	Ra226_228GFPC_P - Local Method	1640 - dissolved Metals (15) Al, As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Se, Sr, Ag, U, V, Zn	1631E - Dissolved Mercury Total	6010D - Dissolved Metals (6) Ca, Fe, Li, Mg, K, Na	Total Number of containers	Special Instructions/Note x = testing comes from another container.
			Preservation Code:				N	S	S	S	D	D	D	D	N	D	A	D		
Well 15 Step	7/3/25	10:13	G	Saltwater			2	1	1	3	1	1	2	1	0	1	1	1	33	Samples not field filtered. Please filter in lab.

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4 5
L	EDA	Y	Trizma
Other		Z	other (specify)

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Fed Ex. 390765207415

Empty Kit Relinquished by	Date	Time	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7/7/25 2:00	INTERA Inc	[signature] Mark Ulrutia	7/8/25 1004	EEAP
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: (63/A) S 7+0.0:5.7 ice-thawed

Ver: 01/16/2019

8/12/2025

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez Maria	Carrier Tracking No(s):	COC No
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID			Job #
Address: 74 Kihapai St	Due Date Requested:			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #			
Email: jordanm@intera.com	WO #			
Project Name: Kalaeloa Desalination	Project #			
Site	SSOW#			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_CALCD-Total Dissolved Solids (TDS)	624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	625.1 SVOCs	8015B/8260D_Hawaii GRO C4-12	8015B_Hawaii DRO C8-24, CRO C24-44	1664A Oil and Grease	608.3 Organochlorine Pesticides	608.3 PCBs	625.1 Sim 1,4-dioxane	8011 Ethylene Dibromide	[illegible]	8015C Ethylene Glycol	Total Number of containers	Special Instructions/Note: x = testing comes from another container
			Preservation Code:				N	A	N	A	N	S	N	N	N	A	N	N		
Well 15 Step	7/3/25	10:13	G	Saltwater			1	3	1	2	2	1	1	1	2	2	1	2	23	Samples not field filtered Please filter in lab.

Preservation Codes

A HCL	M - Hexane
B NaOH	N None
C - Zn Acetate	O AsNaO2
D Nitric Acid	P Na2O4S
E NaHSO4	Q Na2SO3
F MeOH	R Na2S2O3
G Amchlor	S H2SO4
H Ascorbic Acid	T TSP Dodecahydrate
I Ice	U Acetone
J DI Water	V - MCAA
K EDTA	W pH 4-5
L EDA	Y Trizma
Other	Z - other (specify)

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III, IV, Other (specify)

Special Instructions/QC Requirements: FedEx 3907 6520 7415

Empty Kit Relinquished by	Date	Time	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7/7/25 2:00	INTERA Inc	[signature] Mark Urratia	7/8/25 1004	EEAP
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: (63/A) 5.7 + 0.0 5.7 ice-thawed

Ver: 01/16/2019

8/12/2025

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-228985.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-159048-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/4/2025			Preservation Codes: -
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			Other: N/A
Site: N/A	SSOW#: N/A			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM7110C/COPRECIPGross Alpha by Co-Precip	900.0/EvaporationGross Beta Only	903.0/PrecSep_21Radium-226	904.0/PrecSep_0Radium-228	Ra226_228GFPC_P	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
Well 15 Step (380-159048-1)	7/3/25	10:13 Hawaiian	G	Water			X	X	X	X	X	5	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 7.9.25 9:32	Company	Received by: Cheyenne Forrest	Date/Time: 0910 JUL 10 2025	Company
Relinquished by:	Date/Time:	Company	Received by: Cheyenne Forrest	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-228984.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest L		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-159048-1
Address: 5755 8th Street East, ,	Due Date Requested: 8/4/2025			Preservation Codes: -
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1640/1640_Prep(MOD) Custom List 7: 19+ Metals	1631EMercury, Total	6010D/3005A(MOD) Custom List 4: 6-7 Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 15 Step (380-159048-1)	7/3/25	10:13 Hawaiian	G	Water			X	X	X		High TDS sample, dilute accordingly

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: 0.2 / 0.0 °C
Delivery: UPS / FedEx / Other: ____
Ice Type: Blue / Dry / Wet / None
Label Ver.: R2 Packing: B

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification 4612 8634 8305
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Cullen	Date/Time: 7-9-25 8:40	Company	Received by:	Date/Time: 7/10/25 9:45	Company PEIN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-228981.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-159048-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/4/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kaleaioa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011/8011_Prep(MOD) Custom Analyte List	625.1_SIM_PREC/625_Prep_LVI(MOD) Local Method	8015C_DAI_GLY/8015_DAI_Prep(MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well 15 Step (380-159048-1)	7/3/25	10:13 Hawaiian	G	Water			X	X	X	7	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Guillermo	7.9.25 8:50				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
			Anthony Ma	07/10/25 0950	ELLIOT

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		2: 4.5 C: 4.3

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | En

Loc: 380
159048

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-228949.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-159048-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/4/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1/624_Prep_3D(MOD) Routine w/Adds w/ A/A w/2-CEVE (3-	625.1/625_Prep(MOD) Routine Semivolatiles List	608.3_Pest/608_PrepRoutine Pesticides List	608.3_PCB/608_Prep_PCBRoutine PCB Aroclor List	300_ORGFM_28DAnions Full List	351.2/351.2_PrepTotal Kjeldahl Nitrogen (TKN)	SM5310DTotal Organic Carbon (TOC)	1664A/1664A_P_WOil & Grease	2320BAlkalinity - All Forms	410.4_LL/410.4_PrepLow Level Chemical Oxygen Demand (COD)	SM2520_BSalinity	8015B_GRO/5030CGasoline Range Organics	8015B_DRO/3510C_LVIDRO (C10-C28)	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
Well 15 Step (380-159048-1)	7/3/25	10:13 Hawaiian	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X	14	High TDS sample, dilute accordingly

380-159048 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Mark Urrutia	7/8/25 1500	EEAP		7-8-25 1500	WP
	7-8-25 1700	WP		7/8/25 1700	EC

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.1/1.4, 4.1/4.4 SC6

Ver: 10/10/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-228949.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-159048-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 8/4/2025			Preservation Codes: -
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3510C_LVICrude Oil (C7-C44)	2540C_CalcdTotal Dissolved Solids (TDS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Well 15 Step (380-159048-1)	7/3/25	10:13 Hawaiian	G	Water			X	X	14	High TDS sample, dilute accordingly

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:
Relinquished by: Mark Urrutia	Date/Time: 7/8/25 1550	Company: EEAP	Received by:	Date/Time: 7-8-25 1550	Company: WB	
Relinquished by:	Date/Time: 7-8-2 1700	Company: EAP	Received by:	Date/Time: 7/8/25 1700	Company: EC	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

8/12/2025

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Date:	7/10/2025
End Time:	1414
KI Paper Lot:	14-860
Analyst:	R
Pipette:	ND

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0 2N)	88441
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
380-159048-N-1	A	Y	5 2	ND

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Date:	7/10/2025
End Time:	15:10
pH Paper Lot:	hc457271
Analyst:	[illegible]
Pipette:	MB_TM06

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	83147
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ
ZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZZZZZZZZZZZZZZZZZ	ZZZZZZZZZZ

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
380-159048-M-1	<2	NA	NA	NA	NA

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-159048-1
SDG Number: Well 15 Step

Login Number: 159048
List Number: 1
Creator: Sanchez Velasquez, Gustavo

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-159048-1
SDG Number: Well 15 Step

Login Number: 159048
List Number: 2
Creator: Mills, Mary

List Source: Eurofins Calscience
List Creation: 07/08/25 08:50 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4, 4.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-159048-1
SDG Number: Well 15 Step

Login Number: 159048
List Number: 6
Creator: Le, Sunny

List Source: Eurofins Calscience
List Creation: 08/05/25 09:55 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-159048-1
SDG Number: Well 15 Step

Login Number: 159048
List Number: 3
Creator: Arroyo, Haley

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 07/10/25 12:12 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-159048-1
SDG Number: Well 15 Step

Login Number: 159048
List Number: 5
Creator: Miller, Darren R

List Source: Eurofins Seattle Specialty Metals
List Creation: 07/10/25 02:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-159048-1
SDG Number: Well 15 Step

Login Number: 159048
List Number: 4
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 07/10/25 11:18 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jordan Moniuszko
INTERA Inc
74 Kihapai Steet
Kailua, Hawaii 96734

Generated 7/31/2025 5:58:05 AM

JOB DESCRIPTION

Kalealoa Desalination Project
PFAS - Well 15 Step

JOB NUMBER

380-159002-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Eurofins Eaton Analytical Pomona

Job Notes

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Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
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5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Authorized for release by
Maria Lopez, Project Manager
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Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Isotope Dilution Summary 9
QC Sample Results 10
QC Association Summary 18
Lab Chronicle 19
Certification Summary 20
Method Summary 21
Sample Summary 22
Chain of Custody 23
Receipt Checklists 25

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-159002-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 7/8/2025 10:04 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C.

PFAS
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159002-1
SDG: PFAS - Well 15 Step

Client Sample ID: Well 15 Step

Lab Sample ID: 380-159002-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	8.8		3.0		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.6		1.5		ng/L	1		1633	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159002-1
SDG: PFAS - Well 15 Step

Client Sample ID: Well 15 Step

Date Collected: 07/03/25 10:13
Date Received: 07/08/25 10:04

Lab Sample ID: 380-159002-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0		ng/L		07/28/25 04:01	07/29/25 16:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0		ng/L		07/28/25 04:01	07/29/25 16:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**8.8**		3.0		ng/L		07/28/25 04:01	07/29/25 16:04	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.6		ng/L		07/28/25 04:01	07/29/25 16:04	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.6		ng/L		07/28/25 04:01	07/29/25 16:04	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0		ng/L		07/28/25 04:01	07/29/25 16:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.1		ng/L		07/28/25 04:01	07/29/25 16:04	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.6		ng/L		07/28/25 04:01	07/29/25 16:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.6		ng/L		07/28/25 04:01	07/29/25 16:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorobutanoic acid (PFBA)	ND		3.0		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorodecanoic acid (PFDA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorododecanoic acid (PFDoA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorohexanoic acid (PFHxA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorononanoic acid (PFNA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1

Client Sample ID: Well 15 Step

Date Collected: 07/03/25 10:13
Date Received: 07/08/25 10:04

Lab Sample ID: 380-159002-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**1.6**		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorooctanoic acid (PFOA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluoropentanoic acid (PFPeA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 16:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*112*		*40 - 200*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C2 6:2 FTS	*114*		*40 - 200*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C2 8:2 FTS	*109*		*40 - 300*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C2 PFDoA	*89.2*		*10 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C2 PFTeDA	*95.7*		*10 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C3 HFPO-DA	*104*		*40 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C3 PFBS	*98.7*		*40 - 135*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C3 PFHxS	*103*		*40 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C4 PFBA	*103*		*5 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C4 PFHpA	*91.1*		*40 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C5 PFHxA	*97.7*		*40 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C5 PFPeA	*89.7*		*40 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C6 PFDA	*108*		*40 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C7 PFUnA	*101*		*30 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C8 FOSA	*84.2*		*40 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C8 PFOA	*98.5*		*40 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C8 PFOS	*98.2*		*40 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
13C9 PFNA	*91.9*		*40 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
d3-NMeFOSAA	*96.5*		*40 - 170*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
d3-NMePFOSA	*68.5*		*10 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
d5-NEtFOSAA	*92.1*		*25 - 135*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
d5-NEtPFOSA	*79.2*		*10 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
d7-N-MeFOSE-M	*71.5*		*10 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*
d9-N-EtFOSE-M	*68.2*		*10 - 130*	*07/28/25 04:01*	*07/29/25 16:04*	*1*

Isotope Dilution Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159002-1
SDG: PFAS - Well 15 Step

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	PFDoA	PFTDA	HFPODA	C3PFBS	C3PFHS
Lab Sample ID	Client Sample ID	(40-200)	(40-200)	(40-300)	(10-130)	(10-130)	(40-130)	(40-135)	(40-130)
380-159002-1	Well 15 Step	112	114	109	89.2	95.7	104	98.7	103
LCS 320-866126/3-A	Lab Control Sample	103	80.0	75.9	61.7	56.3	93.0	79.5	78.5
LCSD 320-866126/4-A	Lab Control Sample Dup	109	90.9	92.6	83.2	80.5	98.3	98.1	97.1
LLCS 320-866126/2-A	Lab Control Sample	105	97.6	95.0	73.1	65.4	101	93.8	100
MB 320-866126/1-A	Method Blank	111	98.9	102	81.4	75.6	96.9	94.4	106

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	C4PFHA	13C5PHA	PFPeA	C6PFDA	13C7PUA	PFOSA	C8PFOA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)	(40-130)	(40-130)
380-159002-1	Well 15 Step	103	91.1	97.7	89.7	108	101	84.2	98.5
LCS 320-866126/3-A	Lab Control Sample	89.3	84.8	94.0	113	75.5	72.4	66.0	75.8
LCSD 320-866126/4-A	Lab Control Sample Dup	90.9	96.5	98.0	113	102	100	78.8	103
LLCS 320-866126/2-A	Lab Control Sample	92.3	94.1	101	116	98.7	89.7	73.9	97.2
MB 320-866126/1-A	Method Blank	97.5	94.4	95.2	111	98.6	95.5	75.0	104

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C8PFOS	C9PFNA	d3NMFOS	d3NMFSA	d5NEFOS	d5NPFSA	NMFM	NEFM
Lab Sample ID	Client Sample ID	(40-130)	(40-130)	(40-170)	(10-130)	(25-135)	(10-130)	(10-130)	(10-130)
380-159002-1	Well 15 Step	98.2	91.9	96.5	68.5	92.1	79.2	71.5	68.2
LCS 320-866126/3-A	Lab Control Sample	67.4	69.8	62.4	54.5	68.2	52.5	53.0	58.1
LCSD 320-866126/4-A	Lab Control Sample Dup	96.8	96.8	81.7	70.8	86.6	69.6	63.7	65.3
LLCS 320-866126/2-A	Lab Control Sample	89.7	90.4	71.6	64.7	80.8	62.3	56.8	59.0
MB 320-866126/1-A	Method Blank	95.4	98.5	75.8	61.2	83.1	58.8	59.6	62.5

Surrogate Legend

M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
HFPODA = 13C3 HFPO-DA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
13C5PHA = 13C5 PFHxA
PFPeA = 13C5 PFPeA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
C9PFNA = 13C9 PFNA
d3NMFOS = d3-NMeFOSAA
d3NMFSA = d3-NMePFOSA
d5NEFOS = d5-NEtFOSAA
d5NPFSA = d5-NEtPFOSA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 320-866126/1-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 866126

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10		ng/L		07/28/25 04:01	07/29/25 03:07	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10		ng/L		07/28/25 04:01	07/29/25 03:07	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5		ng/L		07/28/25 04:01	07/29/25 03:07	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10		ng/L		07/28/25 04:01	07/29/25 03:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10		ng/L		07/28/25 04:01	07/29/25 03:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		07/28/25 04:01	07/29/25 03:07	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 320-866126/1-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 866126

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorooctanoic acid (PFOA)	ND		2.0	ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	ng/L		07/28/25 04:01	07/29/25 03:07	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	ng/L		07/28/25 04:01	07/29/25 03:07	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 4:2 FTS	*111*		*40 - 200*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C2 6:2 FTS	*98.9*		*40 - 200*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C2 8:2 FTS	*102*		*40 - 300*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C2 PFDoA	*81.4*		*10 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C2 PFTeDA	*75.6*		*10 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C3 HFPO-DA	*96.9*		*40 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C3 PFBS	*94.4*		*40 - 135*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C3 PFHxS	*106*		*40 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C4 PFBA	*97.5*		*5 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C4 PFHpA	*94.4*		*40 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C5 PFHxA	*95.2*		*40 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C5 PFPeA	*111*		*40 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C6 PFDA	*98.6*		*40 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C7 PFUnA	*95.5*		*30 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C8 FOSA	*75.0*		*40 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C8 PFOA	*104*		*40 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C8 PFOS	*95.4*		*40 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
13C9 PFNA	*98.5*		*40 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
d3-NMeFOSAA	*75.8*		*40 - 170*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
d3-NMePFOSA	*61.2*		*10 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
d5-NEtFOSAA	*83.1*		*25 - 135*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
d5-NEtPFOSA	*58.8*		*10 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
d7-N-MeFOSE-M	*59.6*		*10 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*
d9-N-EtFOSE-M	*62.5*		*10 - 130*	*07/28/25 04:01*	*07/29/25 03:07*	*1*

Lab Sample ID: LCS 320-866126/3-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 866126

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	31.7		ng/L		84	55 - 160
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	77.5		ng/L		101	60 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	70.6		ng/L		94	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	82.0		ng/L		108	65 - 155

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-866126/3-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 866126

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	174		ng/L		87	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	190		ng/L		95	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	71.4		ng/L		89	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	37.3		ng/L		99	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	31.7		ng/L		85	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	33.5		ng/L		112	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	42.1		ng/L		105	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	197		ng/L		99	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.8		ng/L		97	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	43.2		ng/L		108	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	228		ng/L		114	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	40.3		ng/L		101	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	37.9		ng/L		95	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	31.7		ng/L		89	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.1		ng/L		95	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	37.8		ng/L		94	60 - 150
Perfluorobutanesulfonic acid (PFBS)	35.5	34.2		ng/L		96	60 - 145
Perfluorobutanoic acid (PFBA)	80.0	93.0		ng/L		116	70 - 140
Perfluorodecanesulfonic acid (PFDS)	38.6	36.3		ng/L		94	60 - 145
Perfluorodecanoic acid (PFDA)	40.0	40.6		ng/L		101	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	38.8	30.3		ng/L		78	50 - 145
Perfluorododecanoic acid (PFDoA)	40.0	40.6		ng/L		101	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	38.2	38.2		ng/L		100	70 - 150
Perfluoroheptanoic acid (PFHpA)	40.0	41.9		ng/L		105	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.6		ng/L		92	65 - 145
Perfluorohexanoic acid (PFHxA)	40.0	35.7		ng/L		89	70 - 145
Perfluorononanesulfonic acid (PFNS)	38.5	36.0		ng/L		94	65 - 145
Perfluorononanoic acid (PFNA)	40.0	40.9		ng/L		102	70 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	39.6		ng/L		99	70 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-866126/3-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 866126

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	37.2	37.0		ng/L		100	55 - 150
Perfluorooctanoic acid (PFOA)	40.0	42.7		ng/L		107	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	37.6	36.8		ng/L		98	65 - 140
Perfluoropentanoic acid (PFPeA)	40.0	41.4		ng/L		104	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	40.0	39.6		ng/L		99	60 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	39.1		ng/L		98	65 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	39.0		ng/L		98	70 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 4:2 FTS	*103*		*40 - 200*
13C2 6:2 FTS	*80.0*		*40 - 200*
13C2 8:2 FTS	*75.9*		*40 - 300*
13C2 PFDoA	*61.7*		*10 - 130*
13C2 PFTeDA	*56.3*		*10 - 130*
13C3 HFPO-DA	*93.0*		*40 - 130*
13C3 PFBS	*79.5*		*40 - 135*
13C3 PFHxS	*78.5*		*40 - 130*
13C4 PFBA	*89.3*		*5 - 130*
13C4 PFHpA	*84.8*		*40 - 130*
13C5 PFHxA	*94.0*		*40 - 130*
13C5 PFPeA	*113*		*40 - 130*
13C6 PFDA	*75.5*		*40 - 130*
13C7 PFUnA	*72.4*		*30 - 130*
13C8 FOSA	*66.0*		*40 - 130*
13C8 PFOA	*75.8*		*40 - 130*
13C8 PFOS	*67.4*		*40 - 130*
13C9 PFNA	*69.8*		*40 - 130*
d3-NMeFOSAA	*62.4*		*40 - 170*
d3-NMePFOSA	*54.5*		*10 - 130*
d5-NEtFOSAA	*68.2*		*25 - 135*
d5-NEtPFOSA	*52.5*		*10 - 130*
d7-N-MeFOSE-M	*53.0*		*10 - 130*
d9-N-EtFOSE-M	*58.1*		*10 - 130*

Lab Sample ID: LCSD 320-866126/4-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 866126

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	35.0		ng/L		93	55 - 160	10	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	73.0		ng/L		95	60 - 150	6	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	66.3		ng/L		88	70 - 145	6	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-866126/4-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 866126

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	78.9		ng/L		104	65 - 155	4	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	165		ng/L		82	50 - 145	5	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	176		ng/L		88	70 - 135	8	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	68.7		ng/L		86	65 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	33.9		ng/L		90	65 - 145	10	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	37.0		ng/L		99	70 - 155	15	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	29.8		ng/L		99	70 - 140	12	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	40.8		ng/L		102	65 - 145	3	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	205		ng/L		102	70 - 135	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	37.5		ng/L		94	70 - 145	3	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	40.8		ng/L		102	60 - 150	6	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	211		ng/L		105	70 - 145	8	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.1		ng/L		103	50 - 140	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	43.4		ng/L		108	50 - 150	13	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	34.8		ng/L		97	70 - 140	9	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.4		ng/L		96	55 - 140	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	37.4		ng/L		94	60 - 150	1	30
Perfluorobutanesulfonic acid (PFBS)	35.5	32.9		ng/L		93	60 - 145	4	30
Perfluorobutanoic acid (PFBA)	80.0	92.8		ng/L		116	70 - 140	0	30
Perfluorodecanesulfonic acid (PFDS)	38.6	32.4		ng/L		84	60 - 145	11	30
Perfluorodecanoic acid (PFDA)	40.0	43.7		ng/L		109	70 - 140	7	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	27.9		ng/L		72	50 - 145	8	30
Perfluorododecanoic acid (PFDoA)	40.0	40.5		ng/L		101	70 - 140	0	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	36.4		ng/L		95	70 - 150	5	30
Perfluoroheptanoic acid (PFHpA)	40.0	39.2		ng/L		98	70 - 150	7	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.5		ng/L		92	65 - 145	0	30
Perfluorohexanoic acid (PFHxA)	40.0	40.5		ng/L		101	70 - 145	12	30
Perfluorononanesulfonic acid (PFNS)	38.5	34.4		ng/L		89	65 - 145	4	30
Perfluorononanoic acid (PFNA)	40.0	37.5		ng/L		94	70 - 150	9	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-866126/4-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 866126

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonamide (PFOSA)			40.0	38.8		ng/L		97	70 - 145	2	30
Perfluorooctanesulfonic acid (PFOS)			37.2	35.1		ng/L		94	55 - 150	5	30
Perfluorooctanoic acid (PFOA)			40.0	36.2		ng/L		90	70 - 150	16	30
Perfluoropentanesulfonic acid (PFPeS)			37.6	37.0		ng/L		98	65 - 140	0	30
Perfluoropentanoic acid (PFPeA)			40.0	39.4		ng/L		98	65 - 135	5	30
Perfluorotetradecanoic acid (PFTeDA)			40.0	37.6		ng/L		94	60 - 140	5	30
Perfluorotridecanoic acid (PFTrDA)			40.0	39.9		ng/L		100	65 - 140	2	30
Perfluoroundecanoic acid (PFUnA)			40.0	38.5		ng/L		96	70 - 145	1	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2 4:2 FTS	*109*		*40 - 200*
13C2 6:2 FTS	*90.9*		*40 - 200*
13C2 8:2 FTS	*92.6*		*40 - 300*
13C2 PFDoA	*83.2*		*10 - 130*
13C2 PFTeDA	*80.5*		*10 - 130*
13C3 HFPO-DA	*98.3*		*40 - 130*
13C3 PFBS	*98.1*		*40 - 135*
13C3 PFHxS	*97.1*		*40 - 130*
13C4 PFBA	*90.9*		*5 - 130*
13C4 PFHpA	*96.5*		*40 - 130*
13C5 PFHxA	*98.0*		*40 - 130*
13C5 PFPeA	*113*		*40 - 130*
13C6 PFDA	*102*		*40 - 130*
13C7 PFUnA	*100*		*30 - 130*
13C8 FOSA	*78.8*		*40 - 130*
13C8 PFOA	*103*		*40 - 130*
13C8 PFOS	*96.8*		*40 - 130*
13C9 PFNA	*96.8*		*40 - 130*
d3-NMeFOSAA	*81.7*		*40 - 170*
d3-NMePFOSA	*70.8*		*10 - 130*
d5-NEtFOSAA	*86.6*		*25 - 135*
d5-NEtPFOSA	*69.6*		*10 - 130*
d7-N-MeFOSE-M	*63.7*		*10 - 130*
d9-N-EtFOSE-M	*65.3*		*10 - 130*

Lab Sample ID: LLCS 320-866126/2-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 866126

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			3.78	3.27		ng/L		87	55 - 160		
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			7.68	7.61		ng/L		99	60 - 150		

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-866126/2-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 866126

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	8.25		ng/L		110	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	8.17		ng/L		107	65 - 155
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	15.7		ng/L		78	50 - 145
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	17.4		ng/L		87	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	7.12		ng/L		89	65 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.63		ng/L		96	65 - 145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	3.50		ng/L		94	70 - 155
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.99		ng/L		100	70 - 140
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.95		ng/L		99	65 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	20.2		ng/L		101	70 - 135
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.85		ng/L		96	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.74		ng/L		94	60 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	22.5		ng/L		112	70 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.59		ng/L		115	50 - 140
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.59		ng/L		115	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.66		ng/L		103	70 - 140
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.88		ng/L		97	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.68		ng/L		92	60 - 150
Perfluorobutanesulfonic acid (PFBS)	3.55	3.66		ng/L		103	60 - 145
Perfluorobutanoic acid (PFBA)	8.00	10.0		ng/L		125	70 - 140
Perfluorodecanesulfonic acid (PFDS)	3.86	3.14		ng/L		82	60 - 145
Perfluorodecanoic acid (PFDA)	4.00	4.45		ng/L		111	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.74		ng/L		71	50 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.45		ng/L		111	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.57		ng/L		93	70 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	4.12		ng/L		103	70 - 150
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.39		ng/L		93	65 - 145
Perfluorohexanoic acid (PFHxA)	4.00	4.00		ng/L		100	70 - 145
Perfluorononanesulfonic acid (PFNS)	3.85	3.50		ng/L		91	65 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-866126/2-A
Matrix: Water
Analysis Batch: 866343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 866126

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanoic acid (PFNA)	4.00	4.16		ng/L		104	70 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.04		ng/L		101	70 - 145
Perfluorooctanesulfonic acid (PFOS)	3.72	3.86		ng/L		104	55 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.31		ng/L		108	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.49		ng/L		93	65 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.20		ng/L		105	65 - 135
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.70		ng/L		93	60 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.20		ng/L		105	65 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.22		ng/L		106	70 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 4:2 FTS	*105*		*40 - 200*
13C2 6:2 FTS	*97.6*		*40 - 200*
13C2 8:2 FTS	*95.0*		*40 - 300*
13C2 PFDoA	*73.1*		*10 - 130*
13C2 PFTeDA	*65.4*		*10 - 130*
13C3 HFPO-DA	*101*		*40 - 130*
13C3 PFBS	*93.8*		*40 - 135*
13C3 PFHxS	*100*		*40 - 130*
13C4 PFBA	*92.3*		*5 - 130*
13C4 PFHpA	*94.1*		*40 - 130*
13C5 PFHxA	*101*		*40 - 130*
13C5 PFPeA	*116*		*40 - 130*
13C6 PFDA	*98.7*		*40 - 130*
13C7 PFUnA	*89.7*		*30 - 130*
13C8 FOSA	*73.9*		*40 - 130*
13C8 PFOA	*97.2*		*40 - 130*
13C8 PFOS	*89.7*		*40 - 130*
13C9 PFNA	*90.4*		*40 - 130*
d3-NMeFOSAA	*71.6*		*40 - 170*
d3-NMePFOSA	*64.7*		*10 - 130*
d5-NEtFOSAA	*80.8*		*25 - 135*
d5-NEtPFOSA	*62.3*		*10 - 130*
d7-N-MeFOSE-M	*56.8*		*10 - 130*
d9-N-EtFOSE-M	*59.0*		*10 - 130*

QC Association Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159002-1
SDG: PFAS - Well 15 Step

LCMS

Prep Batch: 866126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159002-1	Well 15 Step	Total/NA	Water	1633	
MB 320-866126/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-866126/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-866126/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-866126/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 866343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-866126/1-A	Method Blank	Total/NA	Water	1633	866126
LCS 320-866126/3-A	Lab Control Sample	Total/NA	Water	1633	866126
LCSD 320-866126/4-A	Lab Control Sample Dup	Total/NA	Water	1633	866126
LLCS 320-866126/2-A	Lab Control Sample	Total/NA	Water	1633	866126

Analysis Batch: 866581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-159002-1	Well 15 Step	Total/NA	Water	1633	866126

Lab Chronicle

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159002-1
SDG: PFAS - Well 15 Step

Client Sample ID: Well 15 Step

Date Collected: 07/03/25 10:13
Date Received: 07/08/25 10:04

Lab Sample ID: 380-159002-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			866126	RMF	EET SAC	07/28/25 04:01
Total/NA	Analysis	1633		1	866581	K1D	EET SAC	07/29/25 16:04

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159002-1
SDG: PFAS - Well 15 Step

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA00044	06-30-26
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468.03	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-26
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-26
Georgia	State	4040	01-29-26
Illinois	NELAP	200060	03-31-26
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-26
Louisiana (All)	NELAP	01944	06-30-26
Maine	State	CA00004	04-14-26
Massachusetts	State	M-CA044	06-30-26
Michigan	State	9947	01-29-26
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	07-31-25
New Jersey	NELAP	CA005	06-30-26
New York	NELAP	11666	04-01-26
Ohio	State	41252	01-29-26
Oregon	NELAP	4040	01-29-26
Texas	NELAP	T104704399-23-17	05-31-26
US Fish & Wildlife	US Federal Programs	A22139	04-30-26
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-26
Virginia	NELAP	460278	03-14-26
Washington	State	C581	05-05-26
West Virginia (DW)	State	9930C	02-01-26
West Virginia DEP	State	422	03-28-26
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159002-1
SDG: PFAS - Well 15 Step

Method	Method Description	Protocol	Laboratory
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET SAC
1633	Solid-Phase Extraction (SPE)	EPA	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: INTERA Inc
Project/Site: Kalealoa Desalination Project

Job ID: 380-159002-1
SDG: PFAS - Well 15 Step

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-159002-1	Well 15 Step	Water	07/03/25 10:13	07/08/25 10:04

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona CA 91768

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jordan Moniuszko	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Jordan Moniuszko	Phone: 808 284 3204	E-Mail: Maria.Lopez@et.eurofinus.com	State of Origin: Hawaii	Page: Page 2 of 2
Company: INTERA	PWSID			Job #:
Address: 74 Kihapai St	Due Date Requested			
City: Kailua	TAT Requested (days): Standard			
State, Zip: HI 96734	Compliance Project: Δ Yes Δ No			
Phone: 808 284 3204	PO #:			
Email: jordanm@intera.com	WO #:			
Project Name: Kalaeloa Desalination	Project #:			
Site	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	~~2540C_CALCD_Total Dissolved Solids (TDS)~~	624.1 VOCs w/HCl Preservation (can omit acrolein and acrylonitrile to avoid hold time flag)	~~625.1 SVOCs~~	~~8015B/8260B_Hawaii GRO C4-12~~	~~8015B_Hawaii DRO C8-24; ORO C24-44~~	~~1664A Oil and Grease~~	~~608.3 Organochlorine Pesticides~~	~~608.3 PCBs~~	625.1 Sim 1,4-dioxane	~~8011 Ethylene Dibromide~~	1633 PFAs	~~8015C Ethylene Glycol~~	Total Number of containers	Special Instructions/Note x = testing comes from another container.
			Preservation Code:				N	A	N	A	N	S	N	N	N	A	N	N		
Well 15 Step	7/3/25	10:13	G	Saltwater			1										2		2	

380-159002 COC

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Fedex 3907 6520 7426

Empty Kit Relinquished by	Date	Time	Method of Shipment: FEDEX Priority Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7/7/25 2:00	INTERA Inc	Moses Bean	7/8/25 10:04	EAP

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		40LA 1.2-6.2 = 1.0 ice pack

Ver: 01/16/2019

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-228982.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): ISO/IEC 17025 - A2LA		Job #: 380-159002-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 8/4/2025			Preservation Codes: -
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Kalealoa Desalination Project	Project #: 38009251			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final/1633_SPE_125Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Well 15 Step (380-159002-1)	7/3/25	10:13 Hawaiian	G	Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:	Method of Shipment:	
Relinquished by: Guillermo V	Date/Time: 7.9.25 8:22	Company	Received by:		Date/Time: 7.10.25 900	Company ~~EEAL~~
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.8c			

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-159002-1
SDG Number: PFAS - Well 15 Step

Login Number: 159002
List Number: 1
Creator: Leon, Mosses

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: INTERA Inc

Job Number: 380-159002-1
SDG Number: PFAS - Well 15 Step

Login Number: 159002
List Number: 2
Creator: Simmons, Jason C

List Source: Eurofins Sacramento
List Creation: 07/10/25 12:16 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Docusign Envelope ID: EED88EE9-F6D1-418F-A475-9259AE6B3DB9

ICA Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.radiocdating.com

Jordan Moniuszko
Intera
74 Kihapai St
Kailua, HI 96734
USA

Dear Jordan,

Shipment sent for radiocarbon (^{14}C) dating analysis arrived at ICA on July 16th, 2025. The sample was processed through the 3 main steps required to prepare a sample for AMS analysis: Pretreatment, Combustion or Acid Digestion, and Reduction (Graphitization). Accelerator Mass Spectrometry was used for radiocarbon analysis, and results are provided in this Report.

The first section of the Report includes the results for the sample submitted and for the Quality Control samples analyzed in parallel with the sample. Quality Control results in this report met acceptance criteria. The later part of the Report includes a Summary of Methods that provides some context on protocols used.

The radiocarbon results were reported on August 5th without the stable isotope results. This report is the amended report containing the $\Delta^{13}C$ results.

The Team at ICA appreciates you for trusting us with your samples. Please reach out if there are any questions.

Sincerely,

Signed by:
Ricky Diaz
8ACC8E1173CD446...
8/6/2025

Docusign Envelope ID: EED88EE9-F6D1-418F-A475-9259AE6B3DB9

ICA Inc.
12358 Parklawn Dr. STE 282
North Bethesda, MD 20852
1-240-957-1414
www.radiocdating.com

^{14}C AMS Report

Submitter Name: Jordan Moniuszko
Company Name: Intera
Address: 74 Kihapai St
Kailua, HI 96734
USA
Date Received: July 16th, 2025
Date Reported: August 4th, 2025
Project #: Kalaeloa Desalination

ICA ID	Submitter ID	Material Type	Pretreatment	δ13C (o/oo)	Conventional Age	Calibrated Age
14C-10238	Well 15 Step	Water	DIC	**-17.02**	**4310 +/- 30 BP**	**Cal 3020 - 2880 BC**

Quality Control Results

QC #	Quality Control Material	Acceptance Criteria	Measured Value
Wheel QC 1	**IAEA C7**	49.53 +/- 0.70 pMC	49.44 +/- 0.20 pMC
Wheel QC 2	**IAEA C5**	23.05 +/- 0.70 pMC	22.78 +/- 0.10 pMC
All Quality Control Analyses Pass Acceptance Criteria			

- AMS = Accelerator Mass Spectrometry.
- pMC = Percent Modern Carbon.
- IAEA = International Atomic Energy Agency.
- Calibrated ages are attained using IntCal20 or Bomb 21 NH1.
- Unless otherwise stated, the error reported is two sigma standard deviation (95.4%).
- Conventional ages are given in BP (BP=Before Present, 1950 AD) or F14C when samples are post-1950, and have been corrected for natural isotope fractionation.

Summary of Methods

Pretreatment

- **Acid/Alkali/Acid (AAA):** Also known as ABA (Acid/Base/Acid), this pretreatment protocol is applied to most organic material types. A hot hydrochloric acid (HCl) wash is applied to remove any carbonates (if present), and then hot sodium hydroxide (NaOH) washes is performed for removal of secondary humic acids. A final hot HCl wash is applied prior to rinsing the sample solution neutral, then dried to prepare for combustion.
- **Acid Etched (AE):** This pretreatment protocol is applied to most carbonates, such as shells and corals. Material is first rinsed with water and mechanically cleaned to remove any debris if present, then exposed to a dilute HCl wash. The sample solution is then rinsed neutral and dried to prepare for acid digestion.
- **Acid Only (AO):** This pretreatment protocol is typically applied to organic sediments. Sample is mechanically sieved, then a HCl wash is applied to remove any carbonates that may be present. The sample solution is then rinsed neutral and dried to prepare for combustion.
- **Collagen Extraction With Acid/Alkali/Acid (Col-AAA)**: This protocol is applied to bones. The sample surface is cleaned, then the AAA process & extraction the protein component of the bone (collagen) through the removal of the mineral portion of the bone (calcium hydroxyapatite) is performed. The treated collagen extracted is rinsed neutral and dried to prepare for combustion.
- **Carbonate Extraction:** This protocol is typically applied to cremated bones. These bones have been heated to temperatures above 600°C and as a result, the bioapatite forms larger and better structure crystals that are typically not susceptible to contamination over time. After cleaning the external surface of the sample, it is treated with NaClO for 48 hours, then CH_3COOH for 24 hours. The sample is then rinsed neutral and dried to prepare for acid digestion.
- **Dissolved Inorganic Carbon (DIC)**: Strontium Chloride (SrCl) is added to ~250 mL of water under slightly basic conditions. Over time, carbon in the water precipitates as $SrCO_3$. The precipitate is dried and prepared for acid digestion.

Combustion

For each sample, some of it is weighed and placed in quartz tube. The tube containing the sample is subsequently brought to vacuum, then an oxygen source is introduced into the tube. The tube is then sealed and exposed to heat (800°C) for at least 30 minutes to drive the reaction, which causes the carbon in the sample to be converted to CO_2 gas. The other product in the reaction is H_2O. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Acid Digestion

Carbonate samples go through the acid digestion process after pretreatment. This involves crushing some of the pretreated material, then placing it in a tube that is subsequently evacuated. The acid digestion reaction is then started by adding H_3PO_4 to the sample in the vacuum environment. This reaction releases the carbon in the sample as CO_2 gas. The sample (CO_2 gas) is then converted into graphite in the Reduction (Graphitization) step.

Reduction (Graphitization)

The evolved CO_2 is distilled through a cold (-78°C) solid CO_2/C_3H_8O slush to remove water as it is transferred under a vacuum to a reduction reaction vessel via a cryogenic pump using liquid N_2 (-195°C). The reduction reaction vessel contains Co as the catalyst and $Mg(ClO_4)_2$ as a drying agent. Hydrogen gas is added to the reduction reaction vessel and then heat is introduced (550°C) to drive the reaction. An unbalanced summary of the 2-step reduction reaction is as follows:

$$CO_2 + H_2 \xrightarrow[550^{o}C,\ Co]{\blacktriangle} CO + H_2O$$

$$CO + H_2 \xrightarrow[550^{o}C,\ Co]{\blacktriangle} C_{(graphite)} + H_2O$$

Accelerator Mass Spectrometry (AMS) Analysis

The graphite obtained for each sample is pressed into an aluminum cathode, and then placed into a sample wheel that is loaded into one of the ion sources in the AMS. The sample wheel includes QC samples of known values in addition to unknowns so that accuracy & precision can be verified. Percent Modern Carbon and a Conventional Age is then determined for each sample.

FQ Labs

3170 Ualena Street, Unit A
Honolulu, HI 96819
Phone: 808-839-9444, Fax: 808-839-9744

Intera Incorporated
74 Kihapai Street
Kailua, HI, 96734
Attn: Jordan Moniuszko
Project Name: Kalaeloa Desalination

CERTIFICATE OF ANALYSIS

Received: 07/03/2025 @ 1:53 PM
Completed: 07/14/2025 @ 11:02 AM
Project Number: 250703-4007-003
Temperature: 1.3 °C

Sample ID: 250703-4007-003-01 | **Water Sample- Lab # 7 Well 15 Step** | **Sampled: 7/3/2025 @ 10:13 AM** | **Sampler: Jordan Moniuszko**

Analysis	Results	Units	MDL	Test Method	Analyzed		By
Biochemical Oxygen Demand	<1.0	mg/L	1.0	SM 5210 B	07/03/2025	3:36 PM	AA
Phosphate, Ortho	0.065	mg/L	0.001	EPA 365.3	07/03/2025	4:00 PM	GK
Nitrogen, Nitrate	0.146	mg/L	0.008	EPA 353.1, Rev2.0	07/03/2025	2:58 PM	GK
Nitrogen, Nitrite	<0.004	mg/L	0.004	EPA 353.2,Rev2.0	07/03/2025	2:37 PM	GK
Hexavalent Chromium	<0.001	mg/L	0.001	SM 3500-Cr-B	07/03/2025	4:04 PM	GK
Phosphorus, Total	1.13	mg/L	0.003	EPA 365.1, Rev2.0	07/14/2025	10:14 AM	AA
Revised:					07/14/2025		

Approved By: Gregg Kawamoto
Monday, July 14, 2025

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Analysts of Excellence
3170-A Ualena Street • Honolulu, HI 96819 • Tel: (808) 839-9444 • Fax: (808) 839-9744 • fql@fqlab.com

FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

Intera Incorporated
74 Kihapai Street
Kailua, HI 96734
Attn: Jordan Moniuszko
Project Name: Kalaeloa Desalination

Received: 7/3/2025
Completed: 7/14/2025
Project Number: 250703-4007-003

Analysis	QC Test	Results	MDL	Units	Spike Level	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
Glucose-Glutamic Acid Check (GGA) 7/03/2025											
BOD	Blank	<1.0	1.00	mg/L	-	-	-	-	-	-	
BOD	GGA	190	1.00	mg/L	198±30.5	-	-	-	-	-	Pass
The results are within the control limit range of 198 ± 30.5											
Ortho Phos	Blank	0.069	0.001	mg/L	-	-	-	-	-	-	
Ortho Phos	LCS	0.97	0.001	mg/L	1.00	-	97	80-120%	-	-	
Ortho Phos	Duplicate	0.07	0.001	mg/L	-	0.08	-	-	15.60	20%	
Ortho Phos	Matrix Spike	0.55	0.001	mg/L	0.50	0.03	104.3	80-120%	-	-	
Nitrate	Blank	<0.008	0.008	mg/L	-	-	-	-	-	-	
Nitrate	LCS	1.02	0.008	mg/L	1.00	-	102.0	90-110%	-	-	
Nitrate	Duplicate	0.145	0.008	mg/L	-	0.15	-	-	3.39	20%	
Nitrate	Matrix Spike	0.637	0.008	mg/L	0.50	0.10875	105.7	90-110%	-	-	
Nitrite	Blank	<0.004	0.004	mg/L	-	-	-	-	-	-	
Nitrite	LCS	0.53	0.004	mg/L	0.50	-	105	90-110%	-	-	
Nitrite	Duplicate	0.00	0.004	mg/L	-	0.00	-	-	0.00	20%	
Nitrite	Matrix Spike	0.49	0.004	mg/L	0.50	0.00	98	90-110%	-	-	
Chromium VI	Blank	<0.001	0.001	mg/L	-	.	-	-	-	-	
Chromium VI	LCS	1.05	0.001	mg/L	1.00	-	105	85-115%	-	-	
Chromium VI	Duplicate	<0.001	0.001	mg/L	-	<0.001	-	-		20%	
Chromium VI	Matrix Spike	0.51	0.001	mg/L	0.50	0.00	101	85-115%	-	-	
Batch Prepared and Analyzed 7/14/2025											
Total Phos	Blank	<0.003	0.003	mg/L	-	-	-	-	-	-	
Total Phos	LCS	1.10	0.003	mg/L	1.00	-	110	90-110%	-	-	
Total Phos	Duplicate	6.89	0.003	mg/L	-	7.02	-	-	1.82	20%	
Total Phos	Matrix Spike	4.02	0.003	mg/L	0.50	3.51	102	90-110%	-	-	

Notes:

B1	Target Analyte detected in method blank was above the method detection limit.
D8	The duplicate exceeded the acceptance limit due to sample matrix effects.
dry	Sample results reported on a dry weight basis.
LCS	Laboratory Control Standard
M8	The matrix spike was below the acceptance limits. See Blank Spike (LFB)
M9	The matrix spike was above the acceptance limits. See Blank Spike (LFB)
MDL	Method Detection Levels are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
ND	Not Detected

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FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

Intera Incorporated
74 Kihapai Street
Kailua, HI 96734
Attn: Jordan Moniuszko
Project Name: Kalaeloa Desalination

Received: 7/3/2025
Completed: 7/14/2025
Project Number: 250703-4007-003

Analysis	QC Test	Results	MDL	Units	Spike Level	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
NR	Not Reported										
R8	The LCS recovery was below the acceptance limits.										
R9	The LCS recovery was above the acceptance limits.										
REC	Recovery										
RPD	Relative Percent Difference										

FQLabs

3170-A Ualena Street
Honolulu, HI 96819

Invoice

Date	Invoice #
7/14/2025	33749

Bill To
Intera Incorporated 74 Kihapai St. Kailua, HI 96734 Attn:Jordan Moniuszko

P.O. No.	Terms	Contract #	Lab #
			7

Description	Qty	Rate	Amount
Phosphorus-Total Added on test for Total Phos wasn't on the Chain of Custody Samples Received on 07/03/25	1	73.00	73.00T

Make Check Payable To:FQLabs

Subtotal	$73.00
Sales Tax (4.712%)	$3.44
Total	$76.44

FQLabs

3170-A Ualena St.
Honolulu, HI 96819
Tel: 808-839-9444 Fax: 808-839-9744 website: www.fqlabs.com

CHAIN OF CUSTODY AND ANALYSIS REQUEST

DATE: _____ PAGE _____ OF _____
CUSTOMER NO. _____ LAB NO. _____

CLIENT NAME: Intera Incorporated EMAIL: jmoniuszko@intera.com

ADDRESS: 74 Kihapai Street Kailua, HI 96734

PROJECT NAME: Kalaeloa Desalination PROJECT NO: LSBRG.Kalaelo P.O. NO:

PROJECT MANAGER: PHONE NO: 808.284.3204 FAX NO:

SAMPLER NAME: (Printed) Jordan Moniuszko (Signature)

TAT (Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N= Normal

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other:

ANALYSES REQUESTED

LAB USE ONLY SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX WATER	MATRIX OTHER	CONTAINER #	CONTAINER TYPE	GRAB/ COMP.	5210B- BOD-5	353.2 Nitrogen, Nitrate	353.1 Nitrogen, Nitrite	365.1 Total Phosphorus	7196A Hexavalent Chromiu			AIRBILL NO: / COOLER NO: / SAMPLE TEMP: / REMARKS: / SAMPLE CONDITION/ COMMENTS:
7	7/3/25	10:13	Well 15 Step	✔		3		G	✔	✔	✔	✔	✔			SAMPLE TEMP: 1-3°C

Relinquished By: (Signature and Printed Name)	Date:	Time:	Received By: (Signature and Printed Name)	Date:	Time:
Jordan Moniuszko	7/3/25		Lorene Hign	7/3/25	1353
Relinquished By: (Signature and Printed Name)	Date:	Time:	Received By: (Signature and Printed Name)	Date:	Time:
Is this a compliance drinking water sample? Yes No			Sign and Print	Date:	Time:

SPECIAL INSTRUCTIONS:

SAMPLE DISPOSITION:

1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless additional storage time is requested.
3. Storage time requested: _____ days.

By _____ Date _____

Outlook

RE: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

From Jordan Moniuszko <jmoniuszko@intera.com>
Date Tue 7/15/2025 7:50 PM
To Eric Anderson <eric@fqlabs.com>; Renee Higa <renee@fqlabs.com>
Cc Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>; Arun Wahi <AWahi@intera.com>

Yes please

From: Eric Anderson <eric@fqlabs.com>
Sent: Tuesday, July 15, 2025 11:30 AM
To: Jordan Moniuszko <jmoniuszko@intera.com>; Renee Higa <renee@fqlabs.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>; Arun Wahi <AWahi@intera.com>
Subject: Re: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Aloha Jordan,

The sample we received on July 3rd was not preserved because none of the original analysis required it. Total Phosphorus requires preservation, and it was not added until after our conversation. Do you still want us to proceed with analyzing the sample for Total Phosphorus?

Eric Anderson
Chemistry Supervisor
FQLabs
3170-A Ualena Street
Honolulu, HI. 96819

From: Jordan Moniuszko <jmoniuszko@intera.com>
Sent: Friday, July 11, 2025 1:31 PM
To: Eric Anderson <eric@fqlabs.com>; Renee Higa <renee@fqlabs.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>; Arun Wahi <AWahi@intera.com>
Subject: RE: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Thank you Eric.

I realize there was some confusion surrounding what to do with the phosphorus species analysis for this project. We are asking that you please exercise consistency in the way the samples these samples are analyzed. For the samples delivered in May you changed the species on the CoC from 365.1 Orthophosphate to reporting 365.1 Total Phosphorus. For the

first July sample it looks like you changed the requested 365.1 Orthophosphate to reporting 365.3 Orthophosphate.

After consulting with my team, it looks like we will want to stick with the method from the May sample for all remaining samples. Please confirm the May sampling method and then analyze according to that, presumably 365.1 for Total Phosphorus.

Attached is the revised CoC sheet for the 7/3/25 sample. If additional invoices are produced, please send separately. Mahalo,

photo

Jordan Moniuszko PE CCM
Senior Water Resources Engineer
INTERA Incorporated

icon 808.284.3204 icon
www.INTERA.com

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From: Eric Anderson <eric@fqlabs.com>
Sent: Friday, July 11, 2025 1:09 PM
To: Jordan Moniuszko <jmoniuszko@intera.com>; Renee Higa <renee@fqlabs.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>; Arun Wahi <AWahi@intera.com>
Subject: Re: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Aloha Jordan,

Could you send us a revised COC reflecting that you also want Total Phosphorus ran on the sample received 7/3? Also, do you want us to amend the invoice to reflect the additional analysis or send over a new one entirely after we are finished?

Eric Anderson
Chemistry Supervisor
FQLabs
3170-A Ualena Street
Honolulu, HI. 96819

From: Jordan Moniuszko <jmoniuszko@intera.com>
Sent: Friday, July 11, 2025 1:01 PM
To: Eric Anderson <eric@fqlabs.com>; Renee Higa <renee@fqlabs.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>; Arun Wahi <AWahi@intera.com>
Subject: RE: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Hi Eric,

Yes, let's please run Total Phosphorus for the July 3 sample please. It's OK if that is outside of hold time. Mahalo,

photo

Jordan Moniuszko PE CCM
Senior Water Resources Engineer
INTERA Incorporated

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From: Eric Anderson <eric@fqlabs.com>
Sent: Friday, July 11, 2025 11:12 AM
To: Jordan Moniuszko <jmoniuszko@intera.com>; Renee Higa <renee@fqlabs.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>
Subject: Re: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Aloha Jordan,

We do have the sample we received on July 3 but do not have the sample received in May. However, the sample is outside of the holding time for any analysis. We can run an analysis with your consent as long as you are aware that it is outside the recommended testable window. Let us know if you want to proceed with an analysis and which analysis you would like.

Mahalo,
Eric Anderson
Chemistry Supervisor
FQLabs
3170-A Ualena Street
Honolulu, HI. 96819

From: Jordan Moniuszko <jmoniuszko@intera.com>
Sent: Thursday, July 10, 2025 5:40 PM
To: Renee Higa <renee@fqlabs.com>; Eric Anderson <eric@fqlabs.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>
Subject: RE: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Thank you all,

Would you happen to retain either of the submitted samples so we could run an additional analysis? I'll run this by my team if it is an option. Mahalo,

photo

Jordan Moniuszko PE CCM
Senior Water Resources Engineer

INTERA Incorporated

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From: Renee Higa <renee@fqlabs.com>
Sent: Thursday, July 10, 2025 3:51 PM
To: Jordan Moniuszko <jmoniuszko@intera.com>; Eric Anderson <eric@fqlabs.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>
Subject: Re: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Hi Jordan,
I've attached a fillable COC for you to use.
Thank you,

Renee Higa
FQLabs
3170-A Ualena Street
Honolulu, HI. 96819
Ph: 808-839-9444, Fax: 808-839-9744
www.fqlabs.com

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From: Jordan Moniuszko <jmoniuszko@intera.com>
Sent: Thursday, July 10, 2025 3:35 PM
To: Eric Anderson <eric@fqlabs.com>; Renee Higa <renee@fqlabs.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>
Subject: RE: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Thank you Eric,

That answers the question. I'm happy to use the FQ CoC if you send that over. Mahalo,

photo

Jordan Moniuszko PE CCM
Senior Water Resources Engineer
INTERA Incorporated

icon 808.284.3204 icon
www.INTERA.com

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From: Eric Anderson <eric@fqlabs.com>
Sent: Thursday, July 10, 2025 3:28 PM
To: Jordan Moniuszko <jmoniuszko@intera.com>; Renee Higa <renee@fqlabs.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>
Subject: Re: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Aloha Jordan,

I have attached the COC for the samples we received on 5/27/25. We do not edit the COC without express approval from the client and the individual delivering the samples crossed out the orthophosphate and requested Total phosphate (they initialed underneath the change). They just did not update the method on your prefilled COC. Orthophosphate is EPA 365.3 while Total Phosphate is EPA 365.1. They are not the same analysis and were done because that was what was requested when the sample was dropped off.

As far as the results, orthophosphate measures the readily useable form of phosphorus, and total phosphorus measures all forms of phosphorus including those that need to be converted. Moving forward, we would prefer if you used our COC when delivering samples. We could send a blank copy of our COC if you prefer.

I hope I have answered your questions and provided some clarification. Please feel free to reach out with any further questions you may have.

Eric Anderson
Chemistry Supervisor
FQLabs
3170-A Ualena Street
Honolulu, HI. 96819

From: Jordan Moniuszko <jmoniuszko@intera.com>
Sent: Thursday, July 10, 2025 2:40 PM
To: Renee Higa <renee@fqlabs.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Eric Anderson <eric@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>
Subject: RE: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Hi Renee,

Quick question on the first two rounds of samples:
-For the 5/27/25 sample you had recommended Total Phosphorus for 365.1 and the report shows an MDL of 0.003 mg/L

-For the 7/3/25 sample it looks like 365.1 was analyzed perhaps differently for Orthophosphate with an MDL of 0.001 mg/L

Is there any practical difference between the analyses or are the results fully comparable? Do you recommend any changes to the CoC for the future samples?

Mahalo,

photo

Jordan Moniuszko PE CCM
Senior Water Resources Engineer
INTERA Incorporated

icon 808.284.3204 icon
www.INTERA.com

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tpx

From: Renee Higa <renee@fqlabs.com>
Sent: Wednesday, July 9, 2025 9:45 AM
To: Jordan Moniuszko <jmoniuszko@intera.com>
Cc: Tai Khan <tai@fqlabs.com>; Tashiana Khan <tashiana@fqlabs.com>; Gregg Kawamoto <gregg@fqlabs.com>; Eric Anderson <eric@fqlabs.com>; Jaiden Marbury <jaiden@fqlabs.com>; Lauren Moorhead <LMoorhead@intera.com>
Subject: Intera Incorporated- Lab Report, QC, Invoice, and COC for sample received on 07/03/25

Hi,
Attached is your report, QC, invoice, and COC.
Thank you,

Renee Higa
FQLabs
3170-A Ualena Street
Honolulu, HI. 96819
Ph: 808-839-9444, Fax: 808-839-9744
www.fqlabs.com

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Oxygen, Hydrogen isotopic analysis of waters
Instrumentation: Picarro L2130-i High Precision 18O and D Isotopic Wat

	Average		Standard Deviation	
Sample Name	**$\delta^{18}O$ (‰)**	**$\delta^{2}H$ (‰)**	**$\delta^{18}O$**	**$\delta^{2}H$**
Well 14 EB 1	***-9.0***	***-60.0***	***0.03***	***0.06***
Well 14 EB 2	***-9.0***	***-59.7***	***0.03***	***0.12***
MW 2 1	***-3.7***	***-19.5***	***0.03***	***0.29***
MW 2 2	***-3.7***	***-19.1***	***0.04***	***0.19***
MW 1 1	***-3.2***	***-15.8***	***0.08***	***0.37***
MW 1 2	***-3.1***	***-15.5***	***0.02***	***0.1***
Well 15 Step 1	***0.2***	***1.9***	***0.03***	***0.16***
Well 15 120Hr 1	***0.2***	***1.8***	***0.04***	***0.18***
Well 15 120Hr 2	***0.1***	***1.4***	***0.06***	***0.16***
Well 15 120Hr Dup 1	***0.1***	***1.6***	***0.11***	***0.34***
Well 14 Step 1	***0.4***	***3.7***	***0.08***	***0.23***
Well 14 Step 2	***0.3***	***3.4***	***0.02***	***0.10***

Comments:
Isotopic corrections are calculated using standards prepared by our labo
All samples were analyzed in at least triplicate, and isotopic values are re
The software Chemcorrect was used to flag for organic contamination; a
otherwise noted.

er Analyzer via A0211 High Precision Vaporizer and Picarro A0325 Autosampler

notes

Evian Water as a check standard:

	δ18O	δ2H
Accuracy	**0.05**	**-0.32**
Precision	**0.14**	**0.4**

ratory and run along with your samples.
eported in δ-notation relative to V-SMOW.
ll samples clear of contamination unless

University of Utah, Dissolved Gas Lab

Tritium Data Summary Sheet

Sample Name	Lab ID	Run ID	Primary Extraction Date	Analysis Date	TU concentration	1 Sigma Error
Ocean Samples						
Event 3	T25-0329	Trit09232504.prc	6/19/2025	9/23/2025	0.311	0.019
Event 2	T25-0328	Trit09232505.prc	6/19/2025	9/23/2025	0.262	0.024
Event 1	T25-0327	Trit11252509.prc	9/26/2025	11/25/2025	0.259	0.039

University of Utah, Dissolved Gas Lab

Tritium Data Summary Sheet

Sample Name	Lab ID	Run ID	Primary Extraction Date	Analysis Date	TU concentration	1 Sigma Error
MW1	T25-0609	Trit12052509.prc	10/30/2025	12/5/2025	1.07	0.12
MW2	T25-0610	Trit12052511.prc	10/30/2025	12/5/2025	0.98	0.21
Well 15 120 Hr DUP	T25-0608	Trit12052512.prc	10/30/2025	12/5/2025	0.07	0.05
Well 15 Step	T25-0497	Trit12082503.prc	10/27/2025	12/8/2025	Below Detection (<0.05)	N/A
Well 15 120 Hr	T25-0607	Trit12082504.prc	10/30/2025	12/8/2025	0.21	0.07
Well 14 EB	T25-0613	Trit12182503.prc	11/11/2025	12/18/2025	0.33	0.07
Well 13 Step	T25-0614	Trit12182504.prc	11/11/2025	12/18/2025	0.04	0.06
Well 13 Step DUP	T25-0615	Trit12182506.prc	11/11/2025	12/18/2025	0.05	0.03
Well 13 120 Hr	T25-0623	Trit12182507.prc	11/11/2025	12/18/2025	0.09	0.06
Well 14 Step	T25-0611	Trit12182509.prc	11/11/2025	12/18/2025	0.29	0.05
Well 14 120 Hr	T25-0612	Trit12182511.prc	11/11/2025	12/18/2025	0.28	0.07

University of Utah, Dissolved Gas Lab

Water Sample Raw Data Summary Sheet

RESULTS: ALL VALUES ARE ccSTP per Amount. Amount is typically g for water samples

Sample Name	Name	RID	He3	He4	R/Ra	HeTotal	NeTotal	ArTotal	KrTotal	XeTotal
Well 15 Step	Cu25-0497	10102502.prc	5.69E-14	2.91E-08	1.41	2.91E-08	1.77E-07	3.51E-04	8.90E-08	1.30E-08
Well 15 120 HR	Cu25-0607	11042503.prc	7.64E-14	4.50E-08	1.23	4.50E-08	1.76E-07	3.43E-04	8.93E-08	1.32E-08
Well 15 120 HR Dup	Cu25-0608	10272502.prc	4.96E-14	2.87E-08	1.25	2.87E-08	1.82E-07	3.55E-04	8.68E-08	1.31E-08
MW1	Cu25-0609	10262504.prc	4.27E-14	3.00E-08	1.03	3.00E-08	3.44E-07	3.31E-04	6.42E-08	7.84E-09
MW2	Cu25-0610	10272501.prc	4.06E-14	2.77E-08	1.06	2.77E-08	2.37E-07	2.87E-04	5.84E-08	7.61E-09
Well 14 Step	Cu25-0611	11042504.prc	6.02E-14	3.68E-08	1.18	3.68E-08	1.53E-07	2.21E-04	5.11E-08	7.02E-09
Well 14 120	Cu25-0612	11132501.prc	6.18E-14	3.85E-08	1.16	3.85E-08	8.24E-08	1.60E-03	5.03E-08	7.25E-09
Well 14 EB	Cu25-0613	11052501.prc	5.67E-14	4.30E-08	0.95	4.30E-08	1.88E-07	2.67E-04	6.12E-08	7.72E-09
Well 13 Step	Cu25-0614	11052502.prc	7.42E-14	4.51E-08	1.19	4.51E-08	1.78E-07	3.47E-04	8.52E-08	1.29E-08
Well 13 Step DUP	Cu25-0615					Analysis was not successful				
Well 13 120 HR	Cu25-0623	11132503.prc	7.43E-14	4.45E-08	1.21	4.45E-08	1.07E-07	2.33E-03	8.54E-08	1.35E-08

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SF6 Data Summary Sheet

Sample Name	ID No.	Sample No.	Sampling Date	Sample Mass	Bottle Headspace (cc)	Uncorrected SF6 (pptv)	Uncorrected SF6 (fMol/Kg)	Maximum % headspace uncertainty
Well 15 Step	SF6-091125-15	SF625-0497	7/3/2025	0.856	3	0.21	0.08	3.87
Well 15 120 Hr	SF6-091125-16	SF625-0607	7/17/2025	0.865	3	0.8	0.31	3.87
Well 15 120 Hr DUP	SF6-091125-17	SF625-0608	7/17/2025	0.863	3	0.4	0.15	3.87
MW-1	SF6-091125-18	SF625-0609	7/22/2025	0.859	3	1.97	0.76	3.87
MW-2	SF6-091125-19	SF625-0610	7/22/2025	0.86	3	2.5	0.97	3.87
Well 14 Step	SF6-091125-20	SF625-0611	7/28/2025	0.863	3	0.62	0.24	3.87
Well 14 120 Hr	SF6-091125-21	SF625-0612	8/4/2025	0.847	9	5.23	2.03	11.61
Well 14 EB	SF6-091825-11	SF625-0613	8/4/2025	0.862	2	3.24	1.26	2.58
Well 13 Step	SF6-091825-12	SF625-0614	8/11/2025	0.864	2	-0.02	-0.01	2.58
Well 13 Step MSD	SF6-091825-16	SF625-0615	8/11/2025	0.859	2	1.23	0.48	2.58
Well 13 120 Hr	SF6-091825-17	SF625-0623	8/21/2025	0.863	2	0.12	0.05	2.58