LANDAU ASSOCIATES

2023 ANNUAL REPORT

North Marina Ameron/Hulbert Site
Everett, Washington

September 6, 2023

Prepared for

Port of Everett

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2023 Annual Report
North Marina Ameron/Hulbert Site
1130 West Marine View Drive
Everett, Washington

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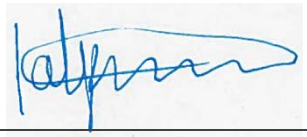
Document prepared by:  Kalpana Prasad, GIT
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Date:	September 6, 2023
Project No.:	0147029.510
File path:	P:\147\029\510\R\1Q23 Annual Report\Landau Ameron_Hulbert 2023 Annual Report FINAL 090623.docx
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LIST OF ABBREVIATIONS AND ACRONYMS

°C ..... degrees Celsius
µg/L ..... micrograms per liter
µS/cm ..... microSiemens per centimeter
1,1-DCE 1,1-dichloroethene
BEHP ..... bis(2-ethylhexyl) phthalate
bgs ..... below ground surface
CAP ..... cleanup action plan
CMP ..... compliance monitoring plan
CUL ..... cleanup levels
Ecology ..... Washington State Department of Ecology
EDR ..... engineering design report
EPA ..... US Environmental Protection Agency
ft ..... feet, foot
Holt ..... Holt Services, Inc.
Landau ..... Landau Associates, Inc.
mg/L ..... milligrams per liter
mV ..... millivolts
NTU ..... nephelometric turbidity units
ORP ..... oxidation reduction potential
PLP ..... potentially liable persons
Port ..... Port of Everett
PVC ..... polyvinyl chloride
RI ..... remedial investigation
RL ..... reporting limit
RPD ..... relative percent difference
sf ..... square feet
SGC ..... silica gel cleanup
Site ..... North Marina Ameron/Hulbert Site
SVOC ..... semivolatile organic compound
TPH ..... total petroleum hydrocarbons
TPH-D ..... diesel-range total petroleum hydrocarbons
TPH-O ..... oil-range total petroleum hydrocarbons
VOC ..... volatile organic compound

1.0 INTRODUCTION

Landau Associates, Inc. (Landau) has prepared this report to present an annual summary of compliance monitoring conducted June 2022 through March 2023 at the North Marina Ameron/Hulbert Site located in Everett, Washington (Site; Figure 1). The Site is owned by the Port of Everett (Port), which is implementing the final cleanup action for the Site. Activities presented in this report include decommissioning and re-installation of a monitoring well, monitoring well development/ redevelopment, and groundwater compliance monitoring.

1.1 Background

The Port is implementing the approved Cleanup Action Plan (CAP) under Consent Decree No. 15 2 01720 7 between Site Potentially Liable Persons (PLPs) and the Washington State Department of Ecology (Ecology; Ecology 2014). As documented in the Cleanup Action Report, cleanup activities conducted to date included soil excavation and disposal in two areas (Cleanup Areas G-2 and G-4), and capping and institutional controls in the remaining cleanup areas (Landau 2022). Groundwater compliance monitoring is being completed in accordance with the Compliance Monitoring Plan (CMP; Landau 2021a). The CMP was submitted as an attachment to the Engineering Design Report (EDR), which describes the final cleanup action (Landau 2021b). The CMP and associated Consent Decree and CAP require confirmational groundwater monitoring to demonstrate that Site groundwater achieves the groundwater cleanup standards established for the Site.

1.2 Site Description

The Site is owned by the Port and is located at 1130 West Marine View Drive, Everett, Washington, as shown on Figure 1. The Site is relatively flat and generally bounded to the east by West Marine View Drive, to the north by the TC Systems Site, to the west by the North Marina, and to the south by the Hotel Indigo. The surrounding area consists of commercial and industrial development.

1.3 Capping Status

Containment and institutional controls are utilized as aspects of the cleanup in areas other than Cleanup Areas G-2 and G-4, which were addressed by excavation. Cleanup areas addressed by excavation and containment/institutional controls are shown on Figure 2. As described in the CAP, containment in these areas is accomplished by utilizing existing pavement and/or buildings that serve as a cap, except for a small area in the northeast portion of Cleanup Area J-3a which will be paved as a part of Site redevelopment. As shown on Figure 2, a portion of the previously unpaved J-3a area (approximately 350 square feet [sf]) has been paved; approximately 350 sf remain unpaved. The remaining unpaved area will be capped in conjunction with additional redevelopment activities by the Port and will be documented to demonstrate compliance with the CAP.

2.0 GROUNDWATER COMPLIANCE MONITORING

Quarterly groundwater compliance monitoring was conducted at nine wells identified in the CMP: RI-MW-1, RI-MW-2, RI-MW-3, RI-MW-4, RI-MW-6, RI-MW-7, P-10, SEE-EC-3, and ECI-MW-3. Well locations are shown on Figure 2. As discussed in Section 2.1, monitoring well P-10 was decommissioned and replaced before initiating compliance monitoring activities.

2.1 P-10 Reinstallation

Monitoring well P-10 (Figure 2) was decommissioned in May 2022 due to its location in the path of a planned ramp. It was replaced by monitoring well P-10R in June 2022 after construction ended and was developed prior to the June 2022 groundwater monitoring event. Activities for the replacement of well P-10 were communicated to Ecology by email prior to and following replacement activities.

2.1.1 Monitoring Well Decommissioning

Monitoring well P-10 was decommissioned by Holt Services, Inc. (Holt) on May 6, 2022, and decommissioning activities were observed and documented by Landau. The well was filled with bentonite chips from 0 to 8 feet (ft) below ground surface (bgs) and hydrated. The former well monument was removed, and the surface was sealed with concrete. The well decommissioning report submitted by Holt to Ecology can be found in Appendix A.

2.1.2 Monitoring Well Installation

Monitoring well P-10 was replaced by P-10R on June 13, 2022. The well was installed outside the area of the newly constructed ramp, and approximately 40 ft northeast of the former location of P-10. Prior to drilling, the proposed location was cleared for utilities by the public one-call system and a private utility locator service. Cascade Environmental installed the well using direct-push drilling equipment to 8 ft bgs. The well was constructed of 2-inch diameter, schedule 40 polyvinyl chloride (PVC) pipe and a 5-ft pre-packed screen from 3 to 8 ft bgs with a 0.020 slot size. The sand pack was created with 12-2 sand, and hydrated bentonite chips created the seal. The soil boring log and detailed well log are provided in Appendix A. During installation, a slight sheen and slight to moderate petroleum-like odor was observed in soil cuttings at approximately 7–8 ft bgs. As discussed below in Section 2.2, the Port conservatively added analysis of total petroleum hydrocarbons (TPH) to the list of analytes for the first quarter groundwater monitoring.

2.1.3 Monitoring Well Development

Eight of the nine monitoring wells identified in the CMP to be sampled as part of the compliance monitoring needed to be re-developed before sampling due to their lack of use for several years. The newly installed P-10R also needed to be developed for the first time. The well depths were measured and compared to records to determine sediment build-up and then wells were developed using an electric submersible pump and stainless-steel bailer or a Honda pump with dedicated tubing. Based on the well depth measurements before and after development, up to approximately 1.05 ft of sediment were removed from the wells during development. The wells were bailed and pumped at a high velocity

until the water ran clear or 10 well casing volumes had been removed. No odor or sheen was observed during the development activities, including at new monitoring well P-10R.

2.2 Groundwater Sampling and Analysis

Quarterly groundwater monitoring was conducted in June 2022, September 2022, December 2022, and March 2023.

2.2.1 Groundwater Elevation Survey

During the December and March monitoring events, a groundwater elevation survey was conducted prior to sampling the wells. The depth to water for the following nine wells was measured: RI-MW-1, RI-MW-2, RI-MW-3, RI-MW-4, RI-MW-6, RI-MW-7, P-10R, SEE-EC-3, and ECI-MW-3. Due to the tidal influence at some wells, the elevation survey was conducted within an approximately 1-hour window, and in particular, measurements at shoreline wells RI-MW-1, RI-MW-2, and RI-MW-3 were collected within an approximately 10-minute window to minimize the tidal influence between wells. Depth to groundwater data is presented in Table 1.

2.2.2 Groundwater Sampling

Groundwater samples were collected using a peristaltic pump following low-flow groundwater procedures. The depth to water was first measured before the well was purged with field parameters (temperature in degrees Celsius [°C], conductivity in microSiemens per centimeter [µS/cm], dissolved oxygen in milligrams per liter [mg/L], pH, oxidation reduction potential [ORP] in millivolts [mV] and turbidity in nephelometric turbidity units [NTU]) were recorded every 3 minutes until stabilization. Once stabilization occurred, groundwater was sampled and stored on ice. Monitoring wells RI-MW 1, RI-MW-2 and RI-MW-3 were sampled within +/- 1 hour of low tide to avoid influence by marine surface water.

2.2.3 Laboratory Analysis

Compliance monitoring groundwater samples were analyzed by ALS Laboratory in Everett, Washington. In accordance with the CAP, the wells listed below were analyzed for the following:

- RI-MW-1—dissolved arsenic, dissolved copper
- RI-MW-2—dissolved arsenic, dissolved copper
- RI-MW-3—dissolved arsenic, dissolved copper, semivolatile organic compounds (SVOCs; bis[2-ethylhexyl] phthalate [BEHP] only)
- RI-MW-4—diesel- and oil-range TPH (TPH-D and TPH-O, respectively)
- RI-MW-6—dissolved arsenic, TPH-D, and TPH-O
- RI-MW-7—SVOCs (BEHP only)
- P-10R—dissolved arsenic, dissolved copper, TPH-D, and TPH-O (June 2022 only)
- SEE-EC-3—dissolved arsenic

- ECI-MW-3—dissolved arsenic, volatile organic compounds (VOCs; 1,1-dichloroethene [1,1-DCE] only).

Dissolved metals were analyzed by US Environmental Protection Agency (EPA) Method 6020, SVOCs (BEHP) by EPA Method 8270D, VOCs (1,1-DCE only) by EPA Method 8260, and TPH-D and TPH-O by Method NWTPH-Dx both with and without the acid/silica gel cleanup (SGC) preparation method. Use of the SGC preparation method is consistent with analytical procedures used during the remedial investigation.

As indicated above, TPH-D and TPH-O were analyzed at P-10R in June 2022, the quarter immediately following well installation. This analysis was not required by the CMP but was conservatively added based on the observation of sheen and odor during well installation. Based on the lack of TPH detected in the sample (discussed below), TPH analysis at P-10R did not continue after this one monitoring event.

A summary of groundwater sample chemical analyses, analytical methods, cleanup levels (CULs), and analytical results are presented in Table 2.

2.3 Quality Assurance/Quality Control

In accordance with the CMP, field, and laboratory quality control samples were used to evaluate data precision, accuracy, representativeness, completeness, and comparability of the analytical results. The quality control samples included analysis of laboratory control samples, method blanks, and trip blanks, and collection and analysis of one field duplicate for each analysis performed.

Validation of the analytical data was performed by Landau following the guidelines in applicable sections of the EPA Contract Laboratory Program National Functional Guidelines for Organic and Inorganic Data Review (EPA 2020a, b).

Based on the validation, all the data were determined to be acceptable for use. No qualification of the data was necessary, except for one dissolved arsenic result and one TPH-D/O result, which were marked as estimated values due to high relative percent difference (RPD) between the parent and duplicate samples.

3.0 RESULTS

This section presents the results of the quarterly groundwater monitoring events conducted from June 2022 through March 2023, consisting of groundwater quality and elevation data.

3.1 Groundwater Elevations and Flow Direction

Groundwater contour maps were based on depth to water measurements taken in December 2022 (Figure 3) and March 2023 (Figure 4). As shown on these figures, groundwater flows generally to the west toward the three shoreline wells (RI-MW-1, RI-MW-2, and RI-MW-3). This flow direction is consistent with flow direction data from previous investigation at the Site.

3.2 Analytical Results

The Site CULs and laboratory data from all four quarters are presented in Table 2, the laboratory analytical reports are included in Appendix B, and are summarized as follows:

- Dissolved arsenic results indicated concentrations less than the laboratory reporting limit (RL) or the CUL at interior wells P-10R and RI-MW-6, and at shoreline wells RI-MW-1, RI-MW-2, and RI-MW-3 during the four quarters of monitoring. Results indicated dissolved arsenic exceedances of the Site CUL at interior wells ECI-MW-3 and SEE-EC-3 during compliance monitoring events.
  - At ECI-MW-3 concentrations of dissolved arsenic range between 16 micrograms per liter (µg/L) and 96 µg/L. Previous data at this well collected during the remedial investigation (RI; Landau 2014) ranged from 18.2 µg/L to 65.8 µg/L. The concentration at ECI-MW-3 in March 2023 was slightly lower (16 µg/L) than the previous three quarters, but still greater than the CUL.
  - At SEE-EC-3, the dissolved arsenic concentration was lower and below the CUL in the March 2023 monitoring event (4.0 µg/L), but concentrations in the previous quarters ranged from 17 µg/L to 80 µg/L. For comparison, these concentrations were generally less than dissolved arsenic concentrations detected during the RI, which ranged between 34.6 µg/L and 256 µg/L.
- Dissolved copper was not detected at concentrations greater than the laboratory RL and/or the CUL at P-10R or RI-MW-2 during any quarterly events, or at RI-MW-1 and RI-MW-3 during the June 2022 or September 2022 events. Dissolved copper was detected at concentrations slightly greater than the CUL at RI-MW-1 and RI-MW-3 during the December 2022 and March 2023 monitoring events.
  - At P-10R, the dissolved copper was only detected at a concentration greater than the laboratory RL during the March 2023 monitoring event (2.1 µg/L); this concentration was less than the CUL.
  - At RI-MW-1, dissolved copper was detected at concentrations slightly greater than the CUL of 3 µg/L in December of 2022 (4.0 µg/L) and in March 2023 (3.2 µg/L). Results during the two previous monitoring events indicated dissolved copper concentration less than the laboratory RL (and CUL).
  - At RI-MW-2, dissolved copper results were less than the RL or the CUL during all four quarters.

  - At RI-MW-3, results were less than the RL or the CUL in all samples except the field duplicate sample in December 2022 (3.2 µg/L; the parent sample concentration was 2.4 µg/L) and the parent sample in March 2023 (3.6 µg/L; the duplicate sample concentration was less than the RL.

- TPH-D and TPH-O concentrations were consistently less than the RLs and/or CULs.
  - At P-10R, TPH-D and TPH-O were analyzed in June 2022 only (immediately following installation of P-10R), and concentrations were less than the RL for both analytes, both with and without SGC.
  - At RI-MW-4, TPH-D and TPH-O concentrations were all less than the RL for all samples except one detection of TPH-D without SGC of 160 µg/L, which is well below the CUL.
  - At RI-MW6, TPH-D concentrations without SGC are consistently just below the CUL of 500 µg/L (ranging from 300 µg/L to 480 µg/L). With SGC, concentrations are below the RL or detected at concentrations just above the RL. TPH-O was detected at a concentration greater than the RL in only three samples; all results were less than the CUL.
- SVOCs (1,1 DCE) and VOCs (BEHP) were not detected at concentrations greater than the RL during any monitoring event.

4.0 CONCLUSIONS

Groundwater compliance monitoring was conducted quarterly from June 2022 through March 2023 in accordance with the CMP. Results of the four quarters of groundwater monitoring indicate the following:

- Groundwater flow direction at the Site is generally to the west toward the three shoreline monitoring wells RI-MW-1, RI-MW-2, and RI-MW-3. These wells are interpreted to be downgradient wells, and groundwater at these wells is representative of groundwater discharging from the Site to surface water.
- TPH-D, TPH-O, SVOCs (1,1-DCE), and VOCs (BEHP) were not detected at concentrations greater than their CULs in any well.
- Dissolved arsenic concentrations were less than CULs at all wells during all four quarters, except at ECI-MW-3 and SEE-EC-3.
- Dissolved copper concentrations were less than CULs at all wells during all four quarters except at RI-MW-1 and RI-MW-3. These detections were generally just slightly greater than the CUL (detections of 4.0 µg/L or less as compared to a CUL of 3.0 µg/L).

Overall, groundwater cleanup standards for the Site are being achieved except for four exceedances of the dissolved arsenic and dissolved copper CULs at RI-MW-1, RI-MW-3, ECI-MW-3, and SEE-EC-3. Two of these wells (ECI-MW-3 and SEE-EC-3) are interior wells with exceedance of dissolved arsenic; dissolved arsenic concentrations at shoreline wells indicate compliance with cleanup standards at the point of discharge.

Based on the results summarized above, the Port recommends continued quarterly groundwater compliance monitoring at the Site beginning with the June 2023 event. The scope of continued monitoring will be modified from the original scope presented in the CMP and will include analysis of dissolved copper at shoreline wells RI-MW-1 and RI-MW-3 to further evaluate compliance at these wells where groundwater discharges to surface water from the Site. The Port also conservatively recommends continued analysis of dissolved arsenic at ECI-MW-3 and SEE-EC-3 to collect additional data from these interior locations.

5.0 USE OF THIS REPORT

This report has been prepared for the exclusive use of the Port for specific application to the North Marina Ameron/Hulbert Site. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau, shall be at the user's sole risk. Landau warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

6.0 REFERENCES

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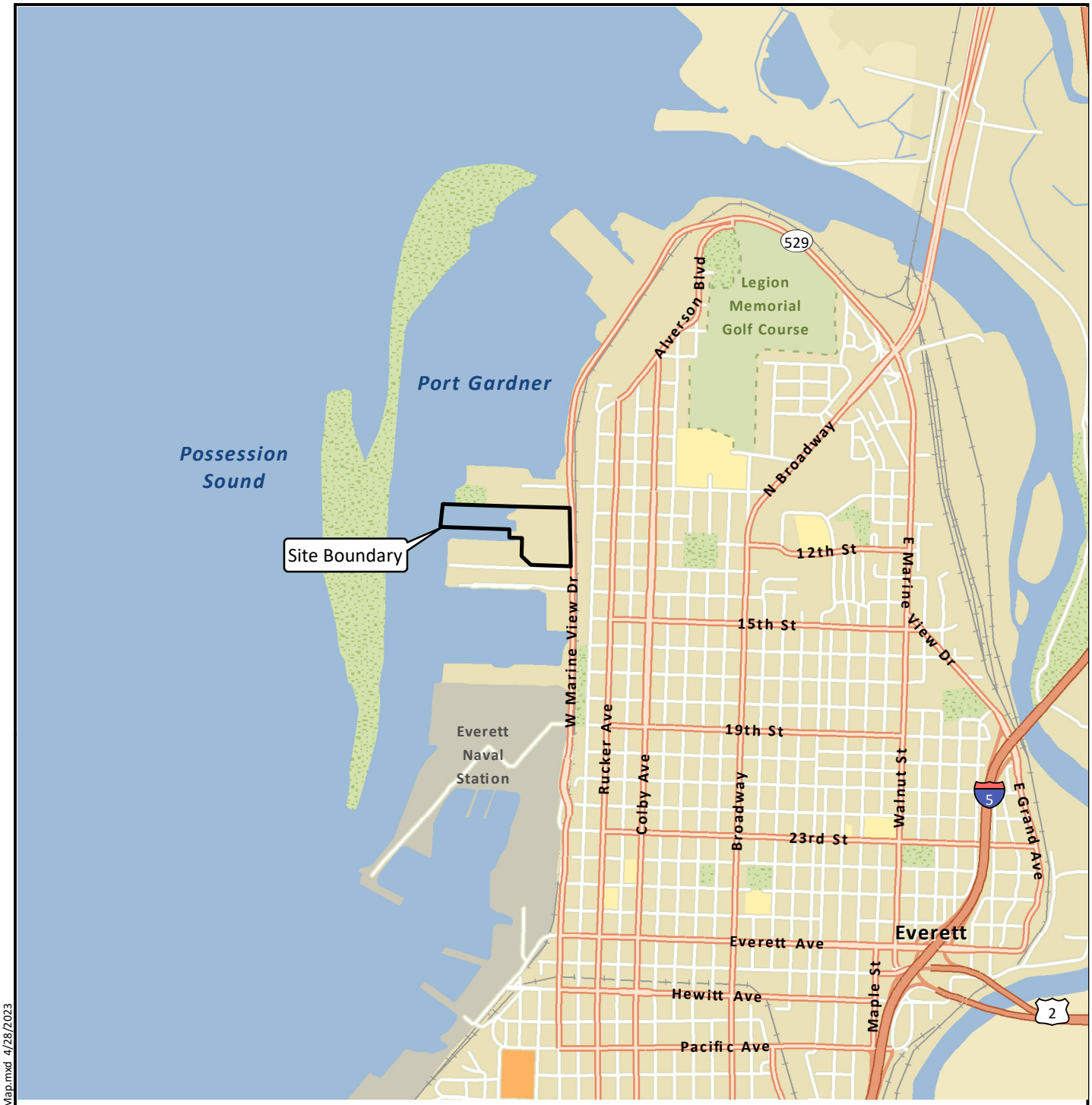

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Data Source: Esri.

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2023 Annual Report North Marina Ameron/Hulbert Site Everett, Washington	**Vicinity Map**	Figure 1

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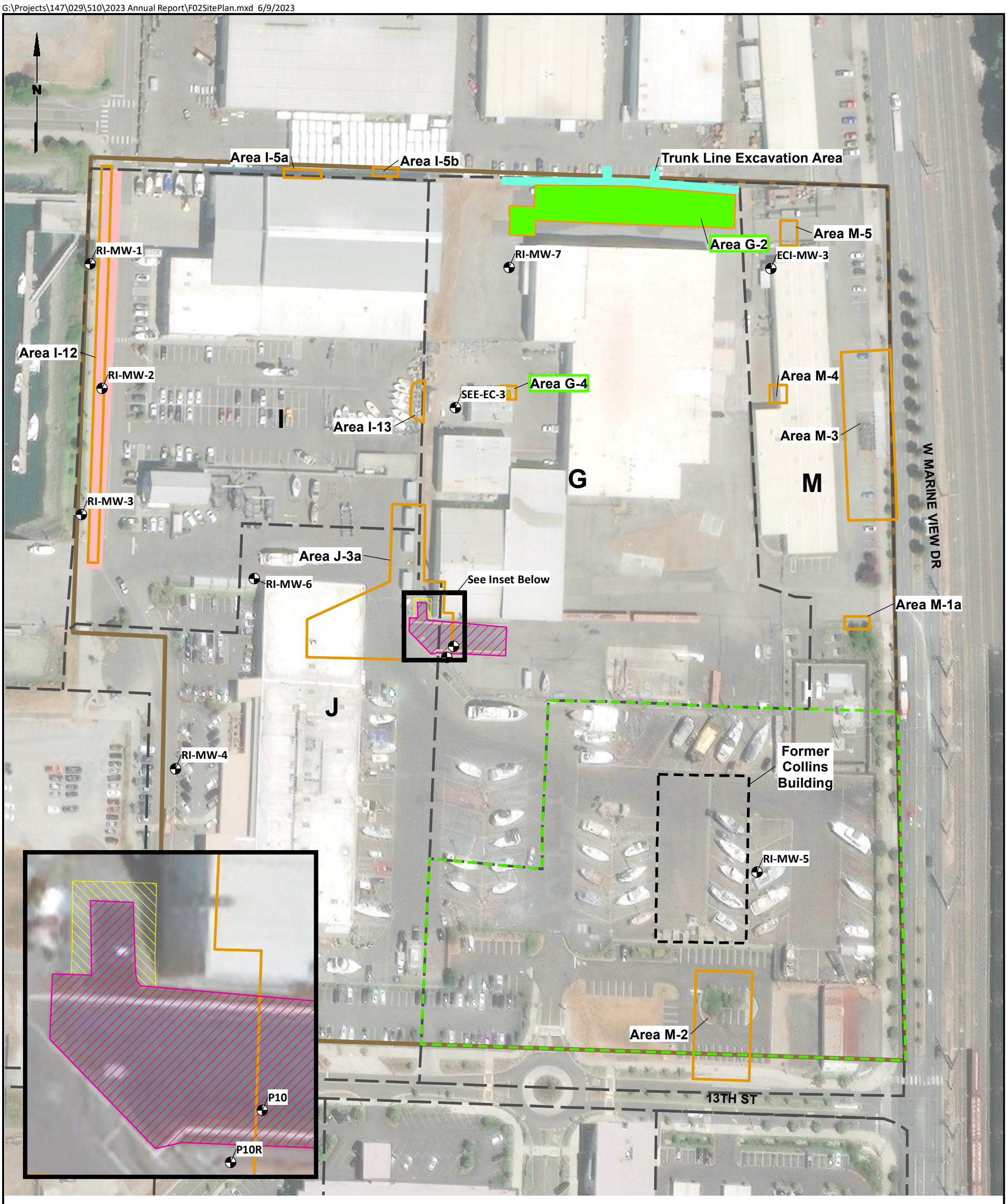

Legend

- North Marina Ameron/Hulbert Site Boundary (Determined in the RI/FS)
- G - Area Designation
- Statistical Compliance Area for Arsenic and Lead in Soil (Excluding Samples Containing Sandblast Grit within Area M-2)
- Area of Arsenic-Affected Crushed Rock (No Analytical Data Available for Crushed Rock Remaining in this Area)
- Cleanup Area to be Addressed by Containment and Institutional Controls
- Cleanup Area Addressed by Excavation
- Trunk Line Excavation
- Newly Paved Area
- Unpaved Area

Notes

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: Snohomish County GIS; Esri World Imagery; Google Earth Pro.

0 120 240

Scale in Feet

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North Marina Ameron/Hulbert Site 2023 Annual Report Everett, Washington	**Site Plan**	Figure 2

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Legend

- Monitoring Well
- Groundwater Elevation Contour
- North Marina Ameron/Hulbert Site Boundary (Determined in the RI/FS)
- G - Area Designation
- Groundwater Flow Direction

Notes

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

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Scale in Feet

Data Source: Snohomish County GIS.

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North Marina Ameron/Hulbert Site
2023 Annual Report
Everett, Washington

Groundwater Elevation Contours December 2022

Figure 3

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Legend

- Monitoring Well
- Groundwater Elevation Contour
- North Marina Ameron/Hulbert Site Boundary (Determined in the RI/FS)
- G - Area Designation
- Groundwater Flow Direction

Notes

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

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Scale in Feet

Data Source: Snohomish County GIS.

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North Marina Ameron/Hulbert Site
2023 Annual Report
Everett, Washington

Groundwater Elevation Contours March 2023

Figure 4

Table 1
Groundwater Elevations
North Marina Ameron/Hulbert Site
Everett, Washington

Monitoring Well	Sample Date	TOC Elevation (ft)*	Depth to Groundwater (ft from TOC)*	Groundwater Elevation (ft)*	Tide Elevation at Time of Measurement (ft)	Sample Date	Depth to Groundwater (ft from TOC)*	Groundwater Elevation (ft)*	Tide Elevation at Time of Measurement (ft)
RI-MW-1	12/9/2022	17.23	7.1	10.13	~ 8.5	3/9/2023	7.07	10.16	~ 9.8
RI-MW-2	12/9/2022	17.66	7.12	10.54	~ 8.5	3/9/2023	7.21	10.45	~ 9.8
RI-MW-3	12/9/2022	18.07	8.27	9.8	~ 8.5	3/9/2023	8.67	9.4	~ 9.8
RI-MW-4	12/9/2022	18.1	6.56	11.54	~ 8.5	3/9/2023	6.31	11.79	~ 9.8
RI-MW-6	12/9/2022	17.42	6.76	10.66	~ 8.5	3/9/2023	6.15	11.27	~ 9.8
RI-MW-7	12/9/2022	15.05	2.88	12.17	~ 8.5	3/9/2023	3.08	11.97	~ 9.8
ECI-MW-3	12/9/2022	15.07	2.2	12.87	~ 8.5	3/9/2023	1.92	13.15	~ 9.8
P10R	12/9/2022	16.41	4.33	12.08	~ 8.5	3/9/2023	4.2	12.21	~ 9.8
SEE-EC-3	12/9/2022	16.48	4.52	11.96	~ 8.5	3/9/2023	4.66	11.82	~ 9.8

Notes:

* Elevations are in mean lower low water.

Tide elevation from NOAA .

Abbreviations and Acronyms:

ft = feet

TOC = top of casing (2-inch diameter polyvinyl chloride well casing)

Table 2
Groundwater Analytical Results
North Marina Ameron/Hulbert Site
Everett, Washington

				Analytical Method, Unit of Measurement, Analyte, Site-Specific Cleanup Level (a)					
				EPA 200.8 (µg/L)		NWTPH-Dx/-DXSG (µg/L)		SW-846 8260D (µg/L)	SW-846 8270E (µg/L)
				Dissolved Arsenic	Dissolved Copper	Diesel Range Organics (b)	Oil Range Organics (b)	1,1-Dichloroethene	bis(2-Ethylhexyl) Phthalate
Sample Location	**Sample Date**	**Laboratory SDG**	**Sample Type**	5	3	500	500	3.2	2.2
ECI-MW-3	6/23/2022	EV22060151	N	**65**	--	--	--	2.0 U	--
ECI-MW-3	6/23/2022	EV22060151	FD	**64**	--	--	--	2.0 U	--
ECI-MW-3	9/19/2022	EV22090083	N	**96**	--	--	--	2.0 U	--
ECI-MW-3	9/19/2022	EV22090083	FD	**--**	--	--	--	2.0 U	--
ECI-MW-3	12/8/2022	EV22120069	N	**60**	--	--	--	2.0 U	--
ECI-MW-3	12/8/2022	EV22120069	FD	**--**	--	--	--	2.0 U	--
ECI-MW-3	3/9/2023	EV23030073	N	**16**	--	--	--	2.0 U	--
ECI-MW-3	3/9/2023	EV23030073	FD	**--**	--	--	--	2.0 U	--
P-10R-2	6/23/2022	EV22060151	N	**1.6**	2.0 U	130 UJ/130 UJ	250 UJ/250 UJ	--	--
P-10R-2	9/20/2022	EV22090083	N	**1.9**	2.0 U	--	--	--	--
P-10R-2	12/8/2022	EV22120069	N	**1.1**	2.0 U	--	--	--	--
P-10R-2	3/9/2023	EV23030073	N	1.0 U	**2.1**	--	--	--	--
RI-MW1	6/23/2022	EV22060151	N	1.0 U	2.0 U	--	--	--	--
RI-MW1	9/19/2022	EV22090083	N	1.0 U	2.0 U	--	--	--	--
RI-MW1	12/9/2022	EV22120069	N	1.0 U	**4.0**	--	--	--	--
RI-MW1	3/9/2023	EV23030073	N	1.0 U	**3.2**	--	--	--	--
RI-MW2	6/23/2022	EV22060151	N	1.0 U	**2.3**	--	--	--	--
RI-MW2	9/19/2022	EV22090083	N	1.0 U	2.0 U	--	--	--	--
RI-MW2	12/8/2022	EV22120069	N	1.0 U	**2.3**	--	--	--	--
RI-MW2	3/9/2023	EV23030073	N	1.0 U	2.0 U	--	--	--	--

Table 2
Groundwater Analytical Results
North Marina Ameron/Hulbert Site
Everett, Washington

				Analytical Method, Unit of Measurement, Analyte, Site-Specific Cleanup Level (a)					
				EPA 200.8 (µg/L)		NWTPH-Dx/-DXSG (µg/L)		SW-846 8260D (µg/L)	SW-846 8270E (µg/L)
				Dissolved Arsenic	Dissolved Copper	Diesel Range Organics (b)	Oil Range Organics (b)	1,1-Dichloroethene	bis(2-Ethylhexyl) Phthalate
Sample Location	**Sample Date**	**Laboratory SDG**	**Sample Type**	5	3	500	500	3.2	2.2
RI-MW3	6/24/2022	EV22060161	N	1.0 U	2.0 U	--	--	--	2.0 U
RI-MW3	9/19/2022	EV22090083	N	1.0 UJ	2.0 U	--	--	--	2.0 U
RI-MW3	9/19/2022	EV22090083	FD	**4.7 J**	2.0 U	--	--	--	--
RI-MW3	12/8/2022	EV22120069	N	1.0 U	**2.4**	--	--	--	2.0 U
RI-MW3	12/8/2022	EV22120069	FD	**1.0**	**3.2**	--	--	--	2.0 U
RI-MW3	3/10/2023	EV23030073	N	1.0 U	**3.6**	--	--	--	2.0 U
RI-MW3	3/10/2023	EV23030073	FD	1.0 U	2.0 U	--	--	--	2.0 U
RI-MW4	6/24/2022	EV22060161	N	--	--	130 U/130 U	250 U/250 U	--	--
RI-MW4	9/19/2022	EV22090083	N	--	--	130 U/130 U	250 U/ 250 U	--	--
RI-MW4	12/8/2022	EV22120069	N	--	--	**160**/130 U	250 U/250 U	--	--
RI-MW4	3/9/2023	EV23030073	N	--	--	130 U/130 U	250 U/250 U	--	--
RI-MW-6	6/24/2022	EV22060161	N	**2.6**	--	**300**/130 U	250 U/250 U	--	--
RI-MW-6	6/24/2022	EV22060161	FD	**3.3**	--	**340**/130 U	250 U/250 U	--	--
RI-MW-6	9/20/2022	EV22090083	N	**4.6**	--	**430/150**	250 U/ 250 U	--	--
RI-MW-6	9/20/2022	EV22090083	FD	--	--	**420/140**	**250 J**/ 250 U	--	--
RI-MW-6	12/9/2022	EV22120069	N	**3.5**	--	**480/170**	**320**/250 U	--	--
RI-MW-6	12/9/2022	EV22120069	FD	--	--	**440/140**	**300**/250 U	--	--
RI-MW-6	3/9/2023	EV23030073	N	**2.5**	--	**300/130 U**	250 U/250 U	--	--
RI-MW-6	3/9/2023	EV23030073	FD	--	--	**330/130 U**	250 U/250 U	--	--
RI-MW-7	6/23/2022	EV22060151	N	--	--	--	--	--	2.0 U
RI-MW-7	6/23/2022	EV22060151	FD	--	--	--	--	--	2.0 U
RI-MW-7	9/19/2022	EV22090083	N	--	--	--	--	--	2.0 U
RI-MW-7	9/19/2022	EV22090083	FD	--	--	--	--	--	2.0 U
RI-MW-7	12/8/2022	EV22120069	N	--	--	--	--	--	2.0 U
RI-MW-7	3/9/2023	EV23030073	N	--	--	--	--	--	2.0 UJ

Table 2
Groundwater Analytical Results
North Marina Ameron/Hulbert Site
Everett, Washington

				Analytical Method, Unit of Measurement, Analyte, Site-Specific Cleanup Level (a)					
				EPA 200.8 (µg/L)		NWTPH-Dx/-DXSG (µg/L)		SW-846 8260D (µg/L)	SW-846 8270E (µg/L)
Sample Location	Sample Date	Laboratory SDG	Sample Type	Dissolved Arsenic	Dissolved Copper	Diesel Range Organics (b)	Oil Range Organics (b)	1,1-Dichloroethene	bis(2-Ethylhexyl) Phthalate
				5	3	500	500	3.2	2.2
SEE-EC-3	6/23/2022	EV22060151	N	**63**	--	--	--	--	--
SEE-EC-3	9/19/2022	EV22090083	N	**80**	--	--	--	--	--
SEE-EC-3	12/8/2022	EV22120069	N	**17**	--	--	--	--	--
SEE-EC-3	3/9/2023	EV23030073	N	**4.0**	--	--	--	--	--

Notes:

(a) Cleanup levels from Final Compliance Monitoring Plan, North Marina Ameron/Hulbert Site, Everett, Washington (Landau. 2021. Final Compliance Monitoring Plan, North Marina Ameron/Hulbert Site, Everett, Washington. Landau Associates, Inc. January 20.).

(b) Results reported without and with silica gel cleanup, respectively.

Bold text indicates detected analyte

Green shading indicates detected analyte exceeds applicable cleanup level

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Abbreviations and Acronyms:

-- = not analyzed
µg/L = micrograms per liter
EPA = US Environmental Protection Agency
FD = field duplicate
N = primary sample
NWTPH = Northwest Total Petroleum Hydrocarbon
SDG = sample delivery group

APPENDIX A

Monitoring Well Decommissioning Report/ Reinstallation Logs

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE79746

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* R65419

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm Landau

Property Owner PORT OF EVERETT

Site Address 410 14th Street

City Everett County Snohomish

Unique Ecology Well ID Tag No. AHN 538

Location 1/4 NW 1/4 SW Sec 18 TWN 29N R 5E ☐ EWM ☐ WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg n/a Lat Min/Sec n/a Long Deg n/a Long Min/Sec n/a

Tax Parcel No.

☑ Driller ☐ Trainee Name (Print) Henderson, Cody

Driller/Trainee Signature

Driller/Trainee License No. 3269

Cased or Uncased Diameter 2.25" Static Level 4'

Work/Decommision Start Date 2/11/2004

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date 5/6/2022

Construction/Design	Well Data	Formation Description
CONCRETE SURFACE SEAL	0 - ____ FT	0 - ____ FT
BACKFILL	TOC - 8' FT	0 - ____ FT
3/8" MEDIUM BENTONITE CHIPS		
DEPTH OF BORING	8' FT	

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : AHN 538

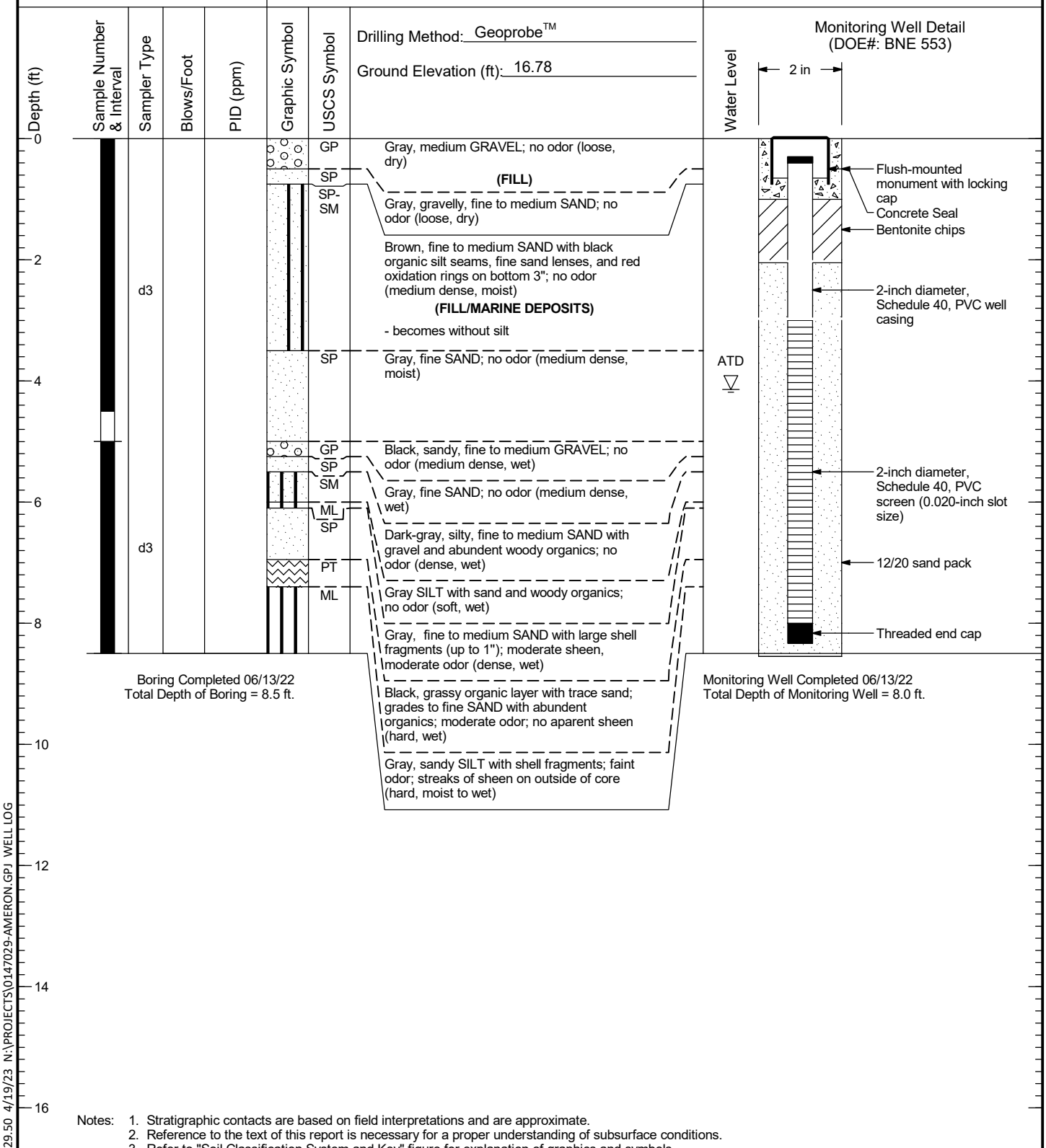
CLIENT WELL ID #:

Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2/01)

P10R



Boring Completed 06/13/22
Total Depth of Boring = 8.5 ft.

Monitoring Well Completed 06/13/22
Total Depth of Monitoring Well = 8.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

147029.50 4/19/23 N:\PROJECTS\0147029-AMERON.GPJ WELL LOG

LANDAU ASSOCIATES

Port of Everett/Ameron-Hulbert Everett, WA	Log of Monitoring Well P10R	Figure A-1

APPENDIX B

Laboratory Data Reports

July 14, 2022

Mr. Dylan Frazer
Landau Associates, Inc.
155 NE 100th St, Ste 302
Seattle, WA 98125

Dear Mr. Frazer,

On June 23rd, 9 samples were received by our laboratory and assigned our laboratory project number EV22060151. The project was identified as your Ameron / 147029.510. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	7/14/2022
		ALS JOB#:	EV22060151
		ALS SAMPLE#:	EV22060151-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/23/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/23/2022 7:30:00 AM
CLIENT SAMPLE ID	R1-MW-2-220623	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	06/27/2022	RAL
Copper (Dissolved)	EPA-200.8	**2.3**	2.0	1	UG/L	06/27/2022	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	7/14/2022 EV22060151 EV22060151-02
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/23/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/23/2022 8:35:00 AM
CLIENT SAMPLE ID	R1-MW-1-220623	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	06/27/2022	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	06/27/2022	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	7/14/2022 EV22060151 EV22060151-03
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/23/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/23/2022 10:10:00 AM
CLIENT SAMPLE ID	P-10R-2-220623	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U, H	130	1	UG/L	07/12/2022	JNF
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U, H	130	1	UG/L	07/13/2022	JNF
TPH-Oil Range (C24-C40)	NWTPH-DX	U, H	250	1	UG/L	07/12/2022	JNF
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U, H	250	1	UG/L	07/13/2022	JNF
Arsenic (Dissolved)	EPA-200.8	**1.6**	1.0	1	UG/L	06/27/2022	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	06/27/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**76.5**	07/12/2022	JNF
C25	NWTPH-DX w/ SGA	**88.1**	07/13/2022	JNF

U - Analyte analyzed for but not detected at level above reporting limit.
H - Sample analyzed outside of hold time.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	7/14/2022 EV22060151 EV22060151-04
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/23/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/23/2022 11:50:00 AM
CLIENT SAMPLE ID	SEE-EC-3-220623	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	**63**	1.0	1	UG/L	06/27/2022	RAL

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	7/14/2022
		ALS JOB#:	EV22060151
		ALS SAMPLE#:	EV22060151-05
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/23/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/23/2022 1:05:00 PM
CLIENT SAMPLE ID	R1-MW-7-220623	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	07/01/2022	JMK

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**95.3**	07/01/2022	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	7/14/2022
		ALS JOB#:	EV22060151
		ALS SAMPLE#:	EV22060151-06
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/23/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/23/2022 12:30:00 PM
CLIENT SAMPLE ID	DUP -220623	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	07/01/2022	JMK

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**95.4**	07/01/2022	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	7/14/2022 EV22060151 EV22060151-07
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/23/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/23/2022 2:50:00 PM
CLIENT SAMPLE ID	ECI-MW-3-220623	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/06/2022	DLC
Arsenic (Dissolved)	EPA-200.8	**65**	1.0	1	UG/L	06/27/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**98.4**	07/06/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	7/14/2022 EV22060151 EV22060151-08
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/23/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/23/2022 4:00:00 PM
CLIENT SAMPLE ID	DUP3-220623	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/06/2022	DLC
Arsenic (Dissolved)	EPA-200.8	**64**	1.0	1	UG/L	06/27/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**99.2**	07/06/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	7/14/2022
		ALS JOB#:	EV22060151
		ALS SAMPLE#:	EV22060151-09
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/23/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/23/2022
CLIENT SAMPLE ID	Tripblanks	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/06/2022	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**99.4**	07/06/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	7/14/2022
		ALS SDG#:	EV22060151
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Ameron / 147029.510		

LABORATORY BLANK RESULTS

MB-070822W - Batch 181166 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U	UG/L	130	07/12/2022	JNF
TPH-Oil Range (C24-C40)	NWTPH-DX	U	UG/L	250	07/12/2022	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-070522W - Batch 180861 - Water by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	UG/L	2.0	07/05/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-063022W - Batch 180753 - Water by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/L	3.2	07/01/2022	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MB-062422W - Batch 180484 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	06/27/2022	RAL
Copper (Dissolved)	EPA-200.8	U	UG/L	2.0	06/27/2022	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
155 NE 100th St, Ste 302
Seattle, WA 98125

CLIENT CONTACT: Dylan Frazer
CLIENT PROJECT: Ameron / 147029.510

DATE: 7/14/2022
ALS SDG#: EV22060151
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 181166 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	**85.1**			67	125.2	07/12/2022	JNF
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	**84.2**	**1**		67	125.2	07/12/2022	JNF

ALS Test Batch ID: 180861 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	**121**			72.5	136	07/05/2022	DLC
1,1-Dichloroethene - BSD	EPA-8260	**114**	**6**		72.5	136	07/05/2022	DLC

ALS Test Batch ID: 180753 - Water by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**104**			20	150	06/30/2022	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**108**	**4**		20	150	07/01/2022	JMK

ALS Test Batch ID: 180484 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-200.8	**98.6**			89.1	110	06/27/2022	RAL
Arsenic (Dissolved) - BSD	EPA-200.8	**99.7**	**1**		89.1	110	06/27/2022	RAL
Copper (Dissolved) - BS	EPA-200.8	**101**			85.4	109	06/27/2022	RAL
Copper (Dissolved) - BSD	EPA-200.8	**103**	**1**		85.4	109	06/27/2022	RAL

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

EV2206 0151

LANDAU ASSOCIATES — Chain-of-Custody Record

☒ North Seattle (206) 631-8660 ☐ Spokane (509) 327-9737
☐ Tacoma (253) 926-2493 ☐ Portland (503) 542-1080
☐ Olympia (360) 791-3178 ☐ _____

Date 6/23/22
Page 1 of 1

Turnaround Time: Standard X Accelerated _____

Project Name Ameron Project No. 147029.510
Project Location/Event North Manna Ameron/Hulbert GW Q2-June 2022
Sampler's Name Kalpana Prasad
Project Contact Dylan Frazer Devan Brandt
Send Results To Dylan Frazer, Devan Brandt, and Elise Granewald

Special Handling Requirements: _____
Shipment Method: drop off
Stored on ice: (Yes) / No

Testing Parameters

	Sample I.D.	Date	Time	Matrix	No. of Containers	TPH-D/TPH-O	SVOCs*	Dissolved Ferrous Iron	VOCs**	Dissolved As	Dissolved Cu	Observations/Comments
(1)	RI-MW-2-220623	6/23/22	730	AQ	1		X		X	X		
(2)	RI MW-1-220623	6/23/22	835	AQ	1		X		X	X		
(3)	P-10R-220623	6/23/22	1010	AQ	2	(X)	X		X	X		
(4)	SEE-EC-3-220623	6/23/22	1150	Aa	1		X		X			
(5)	RI-MW-7-220623	6/23/22	1305	AQ	1	X						
(6)	Dup2-220623	6/23/22	1230	Aa	1	X						
(7)	ECL-MW-3-220623	6/23/22	1450	AQ	4		X	X	X			
(8)	Dup3-220623	6/23/22	1600	AQ	4		X	X	X			
(9)	Tripblanks	--	--	AQ	2			X				

Allow water samples to settle, collect aliquot from clear portion ☐
NWTPH-Dx - Acid wash cleanup ☐
- Silica gel cleanup ☐
X Dissolved metal samples were field filtered

Other Hold P-10R-220623 TPH-dx bottle for potential analysis

Changes in red by DSB 6/24/22

* bis[ethylhexyl]phthalate (BEHP) ONLY

** 1,1-dichloroethylene ONLY

(X) Dylan added Dx w/WO sga BAP 7/6/22

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name Kalpana Prasad	Printed Name Shannon Huffman	Printed Name	Printed Name
Company Landau	Company ALS	Company	Company
Date 6/23/22 Time 1635	Date 6/23/2022 Time 1635	Date Time	Date Time

WHITE COPY - Laboratory YELLOW COPY - Project File PINK COPY - Client Representative

10/2018

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: Landau ALS Job #: EV220 60151

Project: Ameron

Received Date: 6/23/2022 Received Time: 1640 By: SMH

Type of shipping container: Cooler X Box ____ Other ____

Shipped via: FedEx Ground ____ UPS ____ Mail ____ Courier ____ Hand Delivered SO
FedEx Express ____

	Yes	No	N/A
Were custody seals on outside of shipping container?	____	X	____
If yes, how many? ____ Where? ____			
Custody seal date: ____ Seal name: ____			
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	X	____	____
Did all bottles have labels?	X	____	____
Did all bottle labels and tags agree with Chain of Custody?	X	____	____
Were samples received within hold time?	X	____	____
Did all bottles arrive in good condition (unbroken, etc.)?	X	____	____
Was sufficient amount of sample sent for the tests indicated?	X	____	____
Was correct preservation added to samples?	~~X~~	(X)	____

If no, Sample Control added preservative to the following:

Sample Number	Reagent	Analyte

(Field-filtered waters preserved w/ HNO_3 upon sample receipt) - SMH

Were VOA vials checked for absence of air bubbles?	X	____	____
Bubbles present in sample #: none			

Temperature of cooler upon receipt: 4.6°C on ice (Cold) Cool Ambient N/A

Explain any discrepancies: ____

Was client contacted? ____ Who was called? ____ By whom? ____ Date: ____

Outcome of call: ____

July 1, 2022

Mr. Dylan Frazer
Landau Associates, Inc.
155 NE 100th St, Ste 302
Seattle, WA 98125

Dear Mr. Frazer,

On June 24th, 4 samples were received by our laboratory and assigned our laboratory project number EV22060161. The project was identified as your Ameron / 147029.510. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	7/1/2022 EV22060161 EV22060161-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/24/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/24/2022 8:40:00 AM
CLIENT SAMPLE ID	R1-MW-3-220624	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	07/01/2022	JMK
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	06/27/2022	EBS
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	06/27/2022	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**113**	07/01/2022	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	7/1/2022 EV22060161 EV22060161-02
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/24/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/24/2022 10:40:00 AM
CLIENT SAMPLE ID	R1-MW-4-220624	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U	130	1	UG/L	06/30/2022	JNF
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	130	1	UG/L	06/30/2022	JNF
TPH-Oil Range (C24-C40)	NWTPH-DX	U	250	1	UG/L	06/30/2022	JNF
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	06/30/2022	JNF

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**77.6**	06/30/2022	JNF
C25	NWTPH-DX w/ SGA	**80.8**	06/30/2022	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	7/1/2022 EV22060161 EV22060161-03
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/24/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/24/2022 12:40:00 PM
CLIENT SAMPLE ID	R1-MW-6-220624	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	**300**	130	1	UG/L	06/30/2022	JNF
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	130	1	UG/L	06/30/2022	JNF
TPH-Oil Range (C24-C40)	NWTPH-DX	U	250	1	UG/L	06/30/2022	JNF
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	06/30/2022	JNF
Arsenic (Dissolved)	EPA-200.8	**2.6**	1.0	1	UG/L	06/27/2022	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**79.2**	06/30/2022	JNF
C25	NWTPH-DX w/ SGA	**85.6**	06/30/2022	JNF

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	7/1/2022 EV22060161 EV22060161-04
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	06/24/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	6/24/2022 5:00:00 PM
CLIENT SAMPLE ID	DUP1-220624	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	**340**	130	1	UG/L	06/30/2022	JNF
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	130	1	UG/L	06/30/2022	JNF
TPH-Oil Range (C24-C40)	NWTPH-DX	U	250	1	UG/L	06/30/2022	JNF
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	06/30/2022	JNF
Arsenic (Dissolved)	EPA-200.8	**3.3**	1.0	1	UG/L	06/27/2022	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**80.4**	06/30/2022	JNF
C25	NWTPH-DX w/ SGA	**89.2**	06/30/2022	JNF

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	7/1/2022
		ALS SDG#:	EV22060161
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Ameron / 147029.510		

LABORATORY BLANK RESULTS

MB2-062922W - Batch 180743 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U	UG/L	130	06/30/2022	JNF
TPH-Oil Range (C24-C40)	NWTPH-DX	U	UG/L	250	06/30/2022	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-063022W - Batch 180753 - Water by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/L	3.2	07/01/2022	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MB-062722W - Batch 180501 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	06/27/2022	EBS
Copper (Dissolved)	EPA-200.8	U	UG/L	2.0	06/27/2022	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	7/1/2022
		ALS SDG#:	EV22060161
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Ameron / 147029.510		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 180743 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	**100**			67	125.2	06/30/2022	JNF
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	**101**	**1**		67	125.2	06/30/2022	JNF

ALS Test Batch ID: 180753 - Water by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**104**			20	150	06/30/2022	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**108**	**4**		20	150	07/01/2022	JMK

ALS Test Batch ID: 180501 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-200.8	**94.7**			89.1	110	06/27/2022	EBS
Arsenic (Dissolved) - BSD	EPA-200.8	**96.6**	**2**		89.1	110	06/27/2022	EBS
Copper (Dissolved) - BS	EPA-200.8	**99.2**			85.4	109	06/27/2022	EBS
Copper (Dissolved) - BSD	EPA-200.8	**101**	**2**		85.4	109	06/27/2022	EBS

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

EV2206161

LANDAU ASSOCIATES — Chain-of-Custody Record

- [x] North Seattle (206) 631-8660
- [ ] Tacoma (253) 926-2493
- [ ] Olympia (360) 791-3178
- [ ] Spokane (509) 327-9737
- [ ] Portland (503) 542-1080
- [ ] _____

Date 6/24/2022

Page 1 of 1

Turnaround Time:
Standard _____
Accelerated _____

Project Name Ameron
Project No. 147029.510
Project Location/Event North Marina Ameron/Hulbert GW Q2-June 2022
Sampler's Name Kalpana Prasad
Project Contact Dylan Frazer, Devan Brandt
Send Results To Dylan Frazer, Devan Brandt, Elise Grotewald

Special Handling Requirements: _____
Shipment Method: Drop off
Stored on ice: (Yes) / No

	Sample I.D.	Date	Time	Matrix	No. of Containers	Dissolved Arsenic (SW6020B)	Dissolved Lead (SW6020B)	5 VOCs (EDB & EDC only by SW8260D)	NWTPH-Dx and TPH-G (with silica gel cleanup)	VOCs (1,1-DCE Only by SW8260D)	Observations/Comments
1	RI-MW-3-220624	6/24/22	840	AQ	2	X	X	X			
2	RI-MW-4-220624	6/24/22	1040	AQ	~~2~~ 1				X		
3	RI-MW-6-220624	6/24/22	1240	AQ	2	X			X		
4	DUP1-220624	6/24/22	1700	AQ	2	X			X		

Testing Parameters

Observations/Comments

- ___ Allow water samples to settle, collect aliquot from clear portion ☐
- ___ NWTPH-Dx - Acid wash cleanup ☐
  - Silica gel cleanup ☐
- ___ Dissolved metal samples were field filtered

Other _____

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name Kalpana Prasad	Printed Name Ken Perry	Printed Name	Printed Name
Company Landau	Company ALS	Company	Company
Date 6/24/22 Time 1700	Date 6/24/22 Time 17:00	Date Time	Date Time

WHITE COPY - Laboratory YELLOW COPY - Project File PINK COPY - Client Representative

10/2018

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: Landau ALS Job #: EV2206161

Project: Ameron

Received Date: 6/24/22 Received Time: 17:00 By: BAP

Type of shipping container: Cooler X Box ____ Other ____

Shipped via: FedEx Ground ____ UPS ____ Mail ____ Courier ____ Hand Delivered X
FedEx Express ____

	Yes	No	N/A
Were custody seals on outside of shipping container?	____	X	____
If yes, how many? ____ Where? ____			
Custody seal date: ____ Seal name: ____			
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	X	____	____
Did all bottles have labels?	X	____	____
Did all bottle labels and tags agree with Chain of Custody?	X	____	____
Were samples received within hold time?	X	____	____
Did all bottles arrive in good condition (unbroken, etc.)?	X	____	____
Was sufficient amount of sample sent for the tests indicated?	X	____	____
Was correct preservation added to samples?	X	____	____

If no, Sample Control added preservative to the following:

Sample Number	Reagent	Analyte

Were VOA vials checked for absence of air bubbles?	____	____	X
Bubbles present in sample #: ____			

Temperature of cooler upon receipt: 5.9°C on Ice Cold Cool Ambient N/A

Explain any discrepancies: ____

Was client contacted? ____ Who was called? ____ By whom? ____ Date: ____

Outcome of call: ____

October 3, 2022

Mr. Dylan Frazer
Landau Associates, Inc.
155 NE 100th St, Ste 302
Seattle, WA 98125

Dear Mr. Frazer,

On September 20th, 14 samples were received by our laboratory and assigned our laboratory project number EV22090083. The project was identified as your Ameron / 147029.510. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	10/3/2022
		ALS JOB#:	EV22090083
		ALS SAMPLE#:	EV22090083-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022 5:57:00 AM
CLIENT SAMPLE ID	R1-MW-1-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	09/23/2022	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	09/23/2022	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	10/3/2022
		ALS JOB#:	EV22090083
		ALS SAMPLE#:	EV22090083-02
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022 6:30:00 AM
CLIENT SAMPLE ID	R1-MW-2-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	09/23/2022	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	09/23/2022	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	10/3/2022
		ALS JOB#:	EV22090083
		ALS SAMPLE#:	EV22090083-03
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022 7:00:00 AM
CLIENT SAMPLE ID	R1-MW-3-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	09/26/2022	JMK
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	09/23/2022	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	09/23/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**95.0**	09/26/2022	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	10/3/2022
		ALS JOB#:	EV22090083
		ALS SAMPLE#:	EV22090083-04
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022 9:15:00 AM
CLIENT SAMPLE ID	R1-MW-4-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U	130	1	UG/L	09/26/2022	DHM
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	130	1	UG/L	09/27/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	09/27/2022	DHM

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**68.3**	09/26/2022	DHM
C25	NWTPH-DX w/ SGA	**69.0**	09/27/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	10/3/2022 EV22090083 EV22090083-05
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/20/2022 9:55:00 AM
CLIENT SAMPLE ID	R1-MW-6-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	**430**	130	1	UG/L	09/26/2022	DHM
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	**150**	130	1	UG/L	09/27/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	09/27/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**4.6**	1.0	1	UG/L	09/23/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**78.2**	09/26/2022	DHM
C25	NWTPH-DX w/ SGA	**89.6**	09/27/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	10/3/2022
		ALS JOB#:	EV22090083
		ALS SAMPLE#:	EV22090083-06
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022 12:30:00 PM
CLIENT SAMPLE ID	R1-MW-7-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	09/26/2022	JMK

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**69.5**	09/26/2022	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	10/3/2022
		ALS JOB#:	EV22090083
		ALS SAMPLE#:	EV22090083-07
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/20/2022 8:40:00 AM
CLIENT SAMPLE ID	P-10R-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	**1.9**	1.0	1	UG/L	09/23/2022	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	09/23/2022	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	10/3/2022 EV22090083 EV22090083-08
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022 1:50:00 PM
CLIENT SAMPLE ID	SEE-EC-3-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	**80**	1.0	1	UG/L	09/23/2022	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	10/3/2022
		ALS JOB#:	EV22090083
		ALS SAMPLE#:	EV22090083-09
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022 10:55:00 AM
CLIENT SAMPLE ID	ECI-MW-3-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/22/2022	DLC
Arsenic (Dissolved)	EPA-200.8	**96**	1.0	1	UG/L	09/23/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**103**	09/22/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	10/3/2022
		ALS JOB#:	EV22090083
		ALS SAMPLE#:	EV22090083-10
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022 5:00:00 AM
CLIENT SAMPLE ID	DUP-1-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	**4.7**	1.0	1	UG/L	09/23/2022	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	09/23/2022	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	10/3/2022 EV22090083 EV22090083-11
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/20/2022 8:00:00 AM
CLIENT SAMPLE ID	DUP-2-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	**420**	130	1	UG/L	09/27/2022	DHM
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	**140**	130	1	UG/L	09/27/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	**250**	250	1	UG/L	09/27/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	09/27/2022	DHM

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**81.0**	09/27/2022	DHM
C25	NWTPH-DX w/ SGA	**85.0**	09/27/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product.
Oil range product results biased high due to diesel range product overlap.

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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	10/3/2022 EV22090083 EV22090083-12
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022 12:00:00 PM
CLIENT SAMPLE ID	DUP-3-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/22/2022	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**104**	09/22/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	10/3/2022 EV22090083 EV22090083-13
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022
CLIENT SAMPLE ID	Trip Blanks	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/22/2022	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**104**	09/22/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	10/3/2022 EV22090083 EV22090083-14
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/20/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	9/19/2022 2:00:00 PM
CLIENT SAMPLE ID	DUP-4-2209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	09/26/2022	JMK

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**67.1**	09/26/2022	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	10/3/2022
		ALS SDG#:	EV22090083
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Ameron / 147029.510		

LABORATORY BLANK RESULTS

MB-092322W - Batch 184011 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U	UG/L	130	09/26/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	U	UG/L	250	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

MB-092222W - Batch 183981 - Water by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	UG/L	2.0	09/22/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-092622W - Batch 184075 - Water by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/L	3.2	09/26/2022	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MB-092322W - Batch 184130 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	09/23/2022	RAL
Copper (Dissolved)	EPA-200.8	U	UG/L	2.0	09/23/2022	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
155 NE 100th St, Ste 302
Seattle, WA 98125
CLIENT CONTACT: Dylan Frazer
CLIENT PROJECT: Ameron / 147029.510

DATE: 10/3/2022
ALS SDG#: EV22090083
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 184011 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	**99.5**			67	125.2	09/26/2022	DHM
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	**106**	**6**		67	125.2	09/26/2022	DHM

ALS Test Batch ID: 183981 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	**115**			72.5	136	09/22/2022	DLC
1,1-Dichloroethene - BSD	EPA-8260	**116**	**1**		72.5	136	09/22/2022	DLC

ALS Test Batch ID: 184075 - Water by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**106**			20	150	09/26/2022	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**112**	**5**		20	150	09/26/2022	JMK

ALS Test Batch ID: 184130 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-200.8	**101**			89.1	110	09/23/2022	RAL
Arsenic (Dissolved) - BSD	EPA-200.8	**102**	**1**		89.1	110	09/23/2022	RAL
Copper (Dissolved) - BS	EPA-200.8	**104**			85.4	109	09/23/2022	RAL
Copper (Dissolved) - BSD	EPA-200.8	**105**	**1**		85.4	109	09/23/2022	RAL

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

EV2209083

Chain-of-Custody Record

LANDAU ASSOCIATES

- [x] North Seattle (206) 631-8660
- [ ] Tacoma (253) 926-2493
- [ ] Olympia (360) 791-3178
- [ ] Spokane (509) 327-9737
- [ ] Portland (503) 542-1080
- [ ] _____

Date 9/20/22

Page 1 of 1

Turnaround Time: Standard X / Accelerated

Project Name Ameron

Project No. 147029.510

Project Location/Event North Marina Ameron/Hulbert GW Q3-September 2022

Sampler's Name Kalpana Prasad

Project Contact Dylan Frazer, Devan Brandt

Send Results To Dylan Frazer, Devan Brandt, Elise Grorcwald

Special Handling Requirements:

Shipment Method: drop off

Stored on ice: (Yes) / No

Testing Parameters

	Sample I.D.	Date	Time	Matrix	No. of Containers	Dissolved As (6020)*	Dissolved Cu (6020)*	SVOCs (BEH Acidy 8270D)**	TPH-D w/o SG NWTPH-Dx**	VOCs (1,1-DCE only 8260)**	Observations/Comments
1	R1-MW-1-2209	9/19/22	557	AQ	1	X	X				1
2	R1-MW-2-2209	9/19/22	630		1	X	X				2
3	R1-MW-3-2209	9/19/22	760		2	X	X	X			3
4	R1-MW-4-2209	9/19/22	915		1				X		4
5	R1-MW-6-2209	9/20/22	955		2	X			X		5
6	R1-MW-7-2209	9/19/22	1230		1			X			6
7	P-10R-2209	9/20/22	840		1	X	X				7
8	SEE-EC-3-2209	9/19/22	1350		1	X					8
9	EE-MW-3-2209	9/19/22	1055		4	X				X	9
10	DUP-1-2209	9/19/22	500		1 KVP	X	X	KVP			10
11	DUP-2-2209	9/20/22	900		1				X		11
12	DUP-3-2209	9/19/22	1200		3					X	12
13	Trip Blanks	—	—		4					X	13
14	DUP-4-220919	9/19/22	1400		1				X		14

Other * field filtered

** with and without SGC

*** VOAs with HCl

- ___ Allow water samples to settle, collect aliquot from clear portion ☐
- ___ NWTPH-Dx - Acid wash cleanup ☐
  - Silica gel cleanup ☐
- ___ Dissolved metal samples were field filtered

Relinquished by	Received by	Relinquished by	Received by
Signature [signature]	Signature [signature]	Signature	Signature
Printed Name Kalpana Prasad	Printed Name Meg Houghton	Printed Name	Printed Name
Company LAI	Company ALS	Company	Company
Date 9/20/22 Time 11:25	Date 9-20-22 Time 11:25	Date Time	Date Time

WHITE COPY - Laboratory YELLOW COPY - Project File PINK COPY - Client Representative

10/2018

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: Landau Associates ALS Job #: Ev2209083

Project: Ameron

Received Date: 9-20-22 Received Time: 11:25 By: MH

Type of shipping container: Cooler X Box ____ Other ____

Shipped via: FedEx Ground ____ UPS ____ Mail ____ Courier ____ Hand Delivered X
FedEx Express ____

	Yes	No	N/A
Were custody seals on outside of shipping container?			X
If yes, how many? ____ Where? ____			
Custody seal date: ____ Seal name: ____			
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	X		
Did all bottles have labels?	X		
Did all bottle labels and tags agree with Chain of Custody?	X		
Were samples received within hold time?	X		
Did all bottles arrive in good condition (unbroken, etc.)?	X		
Was sufficient amount of sample sent for the tests indicated?	X		
Was correct preservation added to samples?	X		

If no, Sample Control added preservative to the following:

Sample Number	Reagent	Analyte

Were VOA vials checked for absence of air bubbles?	X		
Bubbles present in sample #: None			

Temperature of cooler upon receipt: 2.9 °C Ice Cold Cool Ambient N/A

Explain any discrepancies: ____

Was client contacted? ____ Who was called? ____ By whom? ____ Date: ____

Outcome of call: ____

December 27, 2022

Mr. Dylan Frazer
Landau Associates, Inc.
155 NE 100th St, Ste 302
Seattle, WA 98125

Dear Mr. Frazer,

On December 9th, 13 samples were received by our laboratory and assigned our laboratory project number EV22120069. The project was identified as your Ameron / 147029.510. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	12/27/2022
		ALS JOB#:	EV22120069
		ALS SAMPLE#:	EV22120069-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/8/2022 8:00:00 AM
CLIENT SAMPLE ID	DUP-1-221208	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	12/16/2022	GAP
Arsenic (Dissolved)	EPA-200.8	**1.0**	1.0	1	UG/L	12/21/2022	EBS
Copper (Dissolved)	EPA-200.8	**3.2**	2.0	1	UG/L	12/21/2022	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**91.8**	12/16/2022	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	12/27/2022 EV22120069 EV22120069-02
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/8/2022 9:35:00 AM
CLIENT SAMPLE ID	R1-MW-4-221208	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	**160**	130	1	UG/L	12/16/2022	DHM
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	130	1	UG/L	12/19/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	U	250	1	UG/L	12/16/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	12/19/2022	DHM

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**76.2**	12/16/2022	DHM
C25	NWTPH-DX w/ SGA	**70.6**	12/19/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	12/27/2022
		ALS JOB#:	EV22120069
		ALS SAMPLE#:	EV22120069-03
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/8/2022 10:45:00 AM
CLIENT SAMPLE ID	R1-MW-3-221208	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	12/16/2022	GAP
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	12/21/2022	EBS
Copper (Dissolved)	EPA-200.8	**2.4**	2.0	1	UG/L	12/21/2022	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**92.8**	12/16/2022	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	12/27/2022 EV22120069 EV22120069-04
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/8/2022 11:35:00 AM
CLIENT SAMPLE ID	R1-MW-2-221208	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	12/21/2022	EBS
Copper (Dissolved)	EPA-200.8	**2.3**	2.0	1	UG/L	12/21/2022	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	12/27/2022 EV22120069 EV22120069-05
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/8/2022 1:20:00 PM
CLIENT SAMPLE ID	R1-MW-7-221208	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	12/16/2022	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**68.6**	12/16/2022	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	12/27/2022
		ALS JOB#:	EV22120069
		ALS SAMPLE#:	EV22120069-06
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/8/2022 2:20:00 PM
CLIENT SAMPLE ID	EC1-MW-3-221208	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	12/13/2022	DLC
Arsenic (Dissolved)	EPA-200.8	**60**	1.0	1	UG/L	12/21/2022	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**97.3**	12/13/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	12/27/2022 EV22120069 EV22120069-07
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/8/2022 3:50:00 PM
CLIENT SAMPLE ID	SEE-EC-3-221208	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	**17**	1.0	1	UG/L	12/21/2022	EBS

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	12/27/2022 EV22120069 EV22120069-08
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/8/2022 4:30:00 PM
CLIENT SAMPLE ID	DUP-3-221208	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	12/13/2022	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**97.9**	12/13/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	12/27/2022 EV22120069 EV22120069-09
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/8/2022 4:45:00 PM
CLIENT SAMPLE ID	P-10R-221208	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	**1.1**	1.0	1	UG/L	12/21/2022	EBS
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	12/21/2022	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	12/27/2022 EV22120069 EV22120069-10
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/9/2022 8:00:00 AM
CLIENT SAMPLE ID	DUP-2-221209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	**440**	130	1	UG/L	12/16/2022	DHM
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	**140**	130	1	UG/L	12/19/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	**300**	250	1	UG/L	12/16/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	12/19/2022	DHM

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**73.9**	12/16/2022	DHM
C25	NWTPH-DX w/ SGA	**69.5**	12/19/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	12/27/2022
		ALS JOB#:	EV22120069
		ALS SAMPLE#:	EV22120069-11
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/9/2022 11:10:00 AM
CLIENT SAMPLE ID	R1-MW-1-221209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	12/21/2022	EBS
Copper (Dissolved)	EPA-200.8	**4.0**	2.0	1	UG/L	12/21/2022	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	12/27/2022 EV22120069 EV22120069-12
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/9/2022 12:00:00 PM
CLIENT SAMPLE ID	R1-MW-6-221209	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	**480**	130	1	UG/L	12/16/2022	DHM
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	**170**	130	1	UG/L	12/19/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	**320**	250	1	UG/L	12/16/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	12/19/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**3.5**	1.0	1	UG/L	12/21/2022	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**72.6**	12/16/2022	DHM
C25	NWTPH-DX w/ SGA	**69.8**	12/19/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product.

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ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	12/27/2022
		ALS JOB#:	EV22120069
		ALS SAMPLE#:	EV22120069-13
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	12/09/2022
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	12/9/2022
CLIENT SAMPLE ID	Trip Blanks	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	12/13/2022	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**97.3**	12/13/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
155 NE 100th St, Ste 302
Seattle, WA 98125
CLIENT CONTACT: Dylan Frazer
CLIENT PROJECT: Ameron / 147029.510

DATE: 12/27/2022
ALS SDG#: EV22120069
WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MB-121222W - Batch 187493 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U	UG/L	130	12/16/2022	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	U	UG/L	250	12/16/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

MB-121322W - Batch 187515 - Water by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	UG/L	2.0	12/13/2022	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-121522W - Batch 187492 - Water by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/L	3.2	12/16/2022	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

MB-121422W - Batch 187548 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	12/21/2022	EBS
Copper (Dissolved)	EPA-200.8	U	UG/L	2.0	12/21/2022	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	12/27/2022
		ALS SDG#:	EV22120069
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Ameron / 147029.510		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 187493 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	**106**			67	125.2	12/16/2022	DHM
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	**99.3**	**6**		67	125.2	12/16/2022	DHM

ALS Test Batch ID: 187515 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	**108**			72.5	136	12/13/2022	DLC
1,1-Dichloroethene - BSD	EPA-8260	**103**	**5**		72.5	136	12/13/2022	DLC

ALS Test Batch ID: 187492 - Water by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**103**			20	150	12/16/2022	GAP
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**108**	**4**		20	150	12/16/2022	GAP

ALS Test Batch ID: 187548 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-200.8	**104**			89.1	110	12/21/2022	EBS
Arsenic (Dissolved) - BSD	EPA-200.8	**103**	**1**		89.1	110	12/21/2022	EBS
Copper (Dissolved) - BS	EPA-200.8	**107**			85.4	109	12/21/2022	EBS
Copper (Dissolved) - BSD	EPA-200.8	**106**	**1**		85.4	109	12/21/2022	EBS

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

EV2212 0069

Chain-of-Custody Record

LANDAU ASSOCIATES

☒ North Seattle (206) 631-8660	☐ Spokane (509) 327-9737	Date 12/09/22	Turnaround Time:
☐ Tacoma (253) 926-2493	☐ Portland (503) 542-1080	Page 1 of 1	Standard
☐ Olympia (360) 791-3178	☐ _____		Accelerated

Project Name Ameron Project No. 147029.510

Project Location/Event North Marina Ameron / Hulbert GW Q4 December-22

Sampler's Name Kalpana Prasad

Project Contact Dylan Frazer, Devan Brandt

Send Results To Dylan Frazer, Devan Brandt, Elise Grandwald

Testing Parameters

Special Handling Requirements: _____

Shipment Method: drop off

Stored on ice: Yes / No

	Sample I.D.	Date	Time	Matrix	No. of Containers	Dissolved As (6020)*	Dissolved Cu (6020)*	SVOCs (BEHP only, 8270D)**	TRH - D/O by NWTPH-Dx***	VOCs (1,1-DCE only)***	Observations/Comments
1	DUP-1-221208	12/08/22	800	AQ	2	X	X	X	-		
2	RI-MW-4-221208		935	|	1				X		
3	RI-MW-3-221208		1045	|	2	X	X	X			
4	RI-MW-2-221208		1135	|	1	X	X				
5	RI-MW-7-221208		1320	|	1			X			
6	ECI-MW-3-221208		1420	|	4	X				X	
7	SEE-EC-3-221208		1550	|	1	X					
8	DUP-3-221208		1630	|	3					X	
9	P-10R-221208		1645	|	1		X	X			
10	DUP-2-221209 (EVB/12/9)	12/9/22	800	|	1				X		
11	RI-MW-1-221209	↓	1110	|	1	X	X				
12	RI-MW-6-221209	↓	1200	|	2	X			X		
13	Trip Blanks	—	—	↓	2					X	

☐ Allow water samples to settle, collect aliquot from clear portion

☐ NWTPH-Dx - Acid wash cleanup ☐ - Silica gel cleanup ☐

☐ Dissolved metal samples were field filtered

Other * field filtered

** with and without SGC

*** VOAs with HCl, (EPA 8260 D)

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name Kalpana Prasad	Printed Name Glen Penny	Printed Name	Printed Name
Company LAI	Company ALS	Company	Company
Date 12/09/22 Time 1505	Date 12/9/22 Time 3:05PM	Date Time	Date Time

WHITE COPY - Laboratory YELLOW COPY - Project File PINK COPY - Client Representative

10/2018

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV2212006 9

Project: Ameron 147029.510

Received Date: 12/9/22 Received Time: 1505 By: SL

Type of shipping container: Cooler X Box ___ Other ___

Shipped via: FedEx Ground ___ UPS ___ Mail ___ Courier ___ Hand Delivered X
FedEx Express ___

	Yes	No	N/A
Were custody seals on outside of shipping container?	Y		
If yes, how many? 1 Where? Side of cooler			
Custody seal date: 12/8/22 Seal name: Landau			
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	X		
Did all bottles have labels?	X		
Did all bottle labels and tags agree with Chain of Custody?	X		
Were samples received within hold time?	X		
Did all bottles arrive in good condition (unbroken, etc.)?	X		
Was sufficient amount of sample sent for the tests indicated?		X	but can make it work since only 1 analyte for 8270
Was correct preservation added to samples?	X		

If no, Sample Control added preservative to the following:

Sample Number	Reagent	Analyte

Were VOA vials checked for absence of air bubbles?	X		
Bubbles present in sample #: None			

Temperature of cooler upon receipt: 6.4°C on ice Cold Cool Ambient N/A

Explain any discrepancies: 1/2 Ltr Ambers were received for SVOC tests and 1 Ltr Ambers were received for Dx tests

Was client contacted? Yes Who was called? LM for Kalpana By whom? Shaun Date: 12/9/22

Outcome of call: After talking with Carl, we can use the 1/2 Ltr for the SVOC in this case since only 1 analyte. If they needed another analyte, we would not be able to do it. SL

March 27, 2023

Mr. Dylan Frazer
Landau Associates, Inc.
155 NE 100th St, Ste 302
Seattle, WA 98125

Dear Mr. Frazer,

On March 10th, 13 samples were received by our laboratory and assigned our laboratory project number EV23030073. The project was identified as your Ameron / 147029.510. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rob Greer
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	3/27/2023 EV23030073 EV23030073-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023 8:00:00 AM
CLIENT SAMPLE ID	DUP-3-230309	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/14/2023	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**108**	03/14/2023	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	3/27/2023 EV23030073 EV23030073-02
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023 10:10:00 AM
CLIENT SAMPLE ID	ECI-MW-3-230309	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/14/2023	DLC
Arsenic (Dissolved)	EPA-200.8	**16**	1.0	1	UG/L	03/13/2023	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**108**	03/14/2023	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	3/27/2023
		ALS JOB#:	EV23030073
		ALS SAMPLE#:	EV23030073-03
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023 11:25:00 AM
CLIENT SAMPLE ID	RI-MW-1-230309	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	03/13/2023	RAL
Copper (Dissolved)	EPA-200.8	**3.2**	2.0	1	UG/L	03/13/2023	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	3/27/2023
		ALS JOB#:	EV23030073
		ALS SAMPLE#:	EV23030073-04
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023 12:15:00 PM
CLIENT SAMPLE ID	RI-MW-2-230309	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	03/13/2023	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	03/13/2023	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	3/27/2023 EV23030073 EV23030073-05
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023 2:44:00 PM
CLIENT SAMPLE ID	RI-MW-7-230309	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	03/16/2023	DBA

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**44.1 SUR02**	03/16/2023	DBA

U - Analyte analyzed for but not detected at level above reporting limit.
SUR02 -One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	3/27/2023
		ALS JOB#:	EV23030073
		ALS SAMPLE#:	EV23030073-06
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023 2:49:00 PM
CLIENT SAMPLE ID	P-10R-230309	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	03/13/2023	RAL
Copper (Dissolved)	EPA-200.8	**2.1**	2.0	1	UG/L	03/13/2023	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	3/27/2023 EV23030073 EV23030073-07
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023 3:45:00 PM
CLIENT SAMPLE ID	RI-MW-6-230309	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	**300**	130	1	UG/L	03/24/2023	DHM
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	130	1	UG/L	03/26/2023	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	U	250	1	UG/L	03/24/2023	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	03/26/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**2.5**	1.0	1	UG/L	03/13/2023	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**95.3**	03/24/2023	DHM
C25	NWTPH-DX w/ SGA	**102**	03/26/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	3/27/2023 EV23030073 EV23030073-08
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023 4:45:00 PM
CLIENT SAMPLE ID	DUP-2-230309	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	**330**	130	1	UG/L	03/24/2023	DHM
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	130	1	UG/L	03/26/2023	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	U	250	1	UG/L	03/24/2023	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	03/26/2023	DHM

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**85.6**	03/24/2023	DHM
C25	NWTPH-DX w/ SGA	**94.4**	03/26/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	3/27/2023 EV23030073 EV23030073-09
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023 4:59:00 PM
CLIENT SAMPLE ID	RI-MW-4-230309	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U	130	1	UG/L	03/24/2023	DHM
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	130	1	UG/L	03/26/2023	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	U	250	1	UG/L	03/24/2023	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	250	1	UG/L	03/26/2023	DHM

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**96.7**	03/24/2023	DHM
C25	NWTPH-DX w/ SGA	**106**	03/26/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	3/27/2023 EV23030073 EV23030073-10
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/10/2023 11:58:00 AM
CLIENT SAMPLE ID	RI-MW-3-230310	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	03/16/2023	DBA
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	03/13/2023	RAL
Copper (Dissolved)	EPA-200.8	**3.6**	2.0	1	UG/L	03/13/2023	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**82.5**	03/16/2023	DBA

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	3/27/2023 EV23030073 EV23030073-11
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/10/2023 12:00:00 PM
CLIENT SAMPLE ID	DUP-1-230310	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	03/16/2023	DBA
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	03/13/2023	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	03/13/2023	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	**83.9**	03/16/2023	DBA

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	3/27/2023 EV23030073 EV23030073-12
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023
CLIENT SAMPLE ID	Trip Blanks	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/14/2023	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	**107**	03/14/2023	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE: ALS JOB#: ALS SAMPLE#:	3/27/2023 EV23030073 EV23030073-13
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	03/10/2023
CLIENT PROJECT:	Ameron / 147029.510	COLLECTION DATE:	3/9/2023 3:54:00 PM
CLIENT SAMPLE ID	SEE-EC-3-230309	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	**4.0**	1.0	1	UG/L	03/13/2023	RAL

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ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	3/27/2023
		ALS SDG#:	EV23030073
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Ameron / 147029.510		

LABORATORY BLANK RESULTS

MB-031723W - Batch 190976 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U	UG/L	130	03/24/2023	DHM
TPH-Oil Range (C24-C40)	NWTPH-DX	U	UG/L	250	03/24/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

MB-031423W - Batch 190835 - Water by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	UG/L	2.0	03/14/2023	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-031623W - Batch 190960 - Water by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/L	3.2	03/16/2023	DBA

U - Analyte analyzed for but not detected at level above reporting limit.

MB-031123W - Batch 190814 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	03/13/2023	RAL
Copper (Dissolved)	EPA-200.8	U	UG/L	2.0	03/13/2023	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 155 NE 100th St, Ste 302 Seattle, WA 98125	DATE:	3/27/2023
		ALS SDG#:	EV23030073
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Ameron / 147029.510		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 190976 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	**95.3**			67	125.2	03/24/2023	DHM
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	**93.9**	**2**		67	125.2	03/24/2023	DHM

ALS Test Batch ID: 190835 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	**104**			72.5	136	03/14/2023	DLC
1,1-Dichloroethene - BSD	EPA-8260	**97.4**	**7**		72.5	136	03/14/2023	DLC

ALS Test Batch ID: 190960 - Water by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**89.8**			20	150	03/16/2023	DBA
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**90.4**	**1**		20	150	03/16/2023	DBA

ALS Test Batch ID: 190814 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-200.8	**96.1**			89.1	110	03/13/2023	RAL
Arsenic (Dissolved) - BSD	EPA-200.8	**96.1**	**0**		89.1	110	03/13/2023	RAL
Copper (Dissolved) - BS	EPA-200.8	**103**			85.4	109	03/13/2023	RAL
Copper (Dissolved) - BSD	EPA-200.8	**101**	**2**		85.4	109	03/13/2023	RAL

APPROVED BY

Rob Greer
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

EV2303 0073

Chain-of-Custody Record

LANDAU ASSOCIATES

☒ North Seattle (206) 631-8660	☐ Spokane (509) 327-9737
☐ Tacoma (253) 926-2493	☐ Portland (503) 542-1080
☐ Olympia (360) 791-3178	☐ _____

Date 3/10/2023 Page 1 of 1

Turnaround Time: Standard X Accelerated _____

Project Name Ameron Project No. 147029.510

Project Location/Event North Marina Ameron/Hulbert GW Q1 March 2023

Sampler's Name Kalpana Prasad and Adam Toro

Project Contact Dylan Frazer, Devan Brandt

Send Results To Dylan Frazer, Devan Brandt, Elise Grocock

Testing Parameters

EV2303 0073

Special Handling Requirements: _____

Shipment Method: drop off

Stored on ice: (Yes) / No

	Sample I.D.	Date	Time	Matrix	No. of Containers	Dissolved As (6020) *	Dissolved Cu (6020) *	SVOCs (SEH-PONA) (8270D)	NWTPH-Dx and THH-O	VOCs (11-DCE only 8260D)	Observations/Comments
1	DUP-3-230309	3/9/23	800	AQ	3					X	
2	EC1-MW-3-230309		1010		4	X				X	
3	R1-MW-1-230309		1125		1	X	X				
4	R1-MW-2-230309		1215		1	X	X				
5	R1-MW-7-230309		1444		1			X			
6	P-10R-230309		1449		1	X	X				
7	R1-MW-6-230309		1545		2	X			X		
8	DUP-2-230309		1645		1				X		
9	R1MW-4-230309		1659		1				X		
10	R1-MW-3-230309	3/10/23	1158		2	X	X	X			
11	DUP-1-230310	↓	1200		2	X	X	X			
12	Trip Blanks	—	—		2	~~X~~	~~X~~			X	
13	SEE-EC-3-230309	3/9/23	1554			X VP 3/10					

Allow water samples to settle, collect aliquot from clear portion ☐

NWTPH-Dx - Acid wash cleanup ☐ - Silica gel cleanup ☐

Dissolved metal samples were field filtered

Other * field filtered

O with and without SGC

Δ VOAs with HCl

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name Kalpana Prasad	Printed Name Robin Green	Printed Name	Printed Name
Company Landau Associates	Company AL	Company	Company
Date 3/10/2023 Time 1455	Date 3/10/2023 Time 14:55	Date Time	Date Time

WHITE COPY - Laboratory YELLOW COPY - Project File PINK COPY - Client Representative

10/2018

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: LANDAU ALS Job #: EV2303 0073

Project: AMERON / PORT OF EVERETT

Received Date: 3/10/23 Received Time: 14:55 By: RF

Type of shipping container: Cooler ✓ Box ____ Other ____

Shipped via: FedEx Ground ____ UPS ____ Mail ____ Courier ____ Hand Delivered ✓
FedEx Express ____

on Ice

	Yes	No	N/A
Were custody seals on outside of shipping container?	____	✓	____
If yes, how many? ____ Where? ____			
Custody seal date: ____ Seal name: ____			
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	✓	____	____
Did all bottles have labels?	✓	____	____
Did all bottle labels and tags agree with Chain of Custody?	✓	____	____
Were samples received within hold time?	✓	____	____
Did all bottles arrive in good condition (unbroken, etc.)?	✓	____	____
Was sufficient amount of sample sent for the tests indicated?	✓	____	____
Was correct preservation added to samples?	____	____	____

If no, Sample Control added preservative to the following:

Sample Number	Reagent	Analyte

Were VOA vials checked for absence of air bubbles?	✓	____	____
Bubbles present in sample #: None			

Temperature of cooler upon receipt: 3.8°C 3.2°C (Cold) Cool Ambient N/A

Explain any discrepancies: ____

Was client contacted? ____ Who was called? ____ By whom? ____ Date: ____

Outcome of call: ____