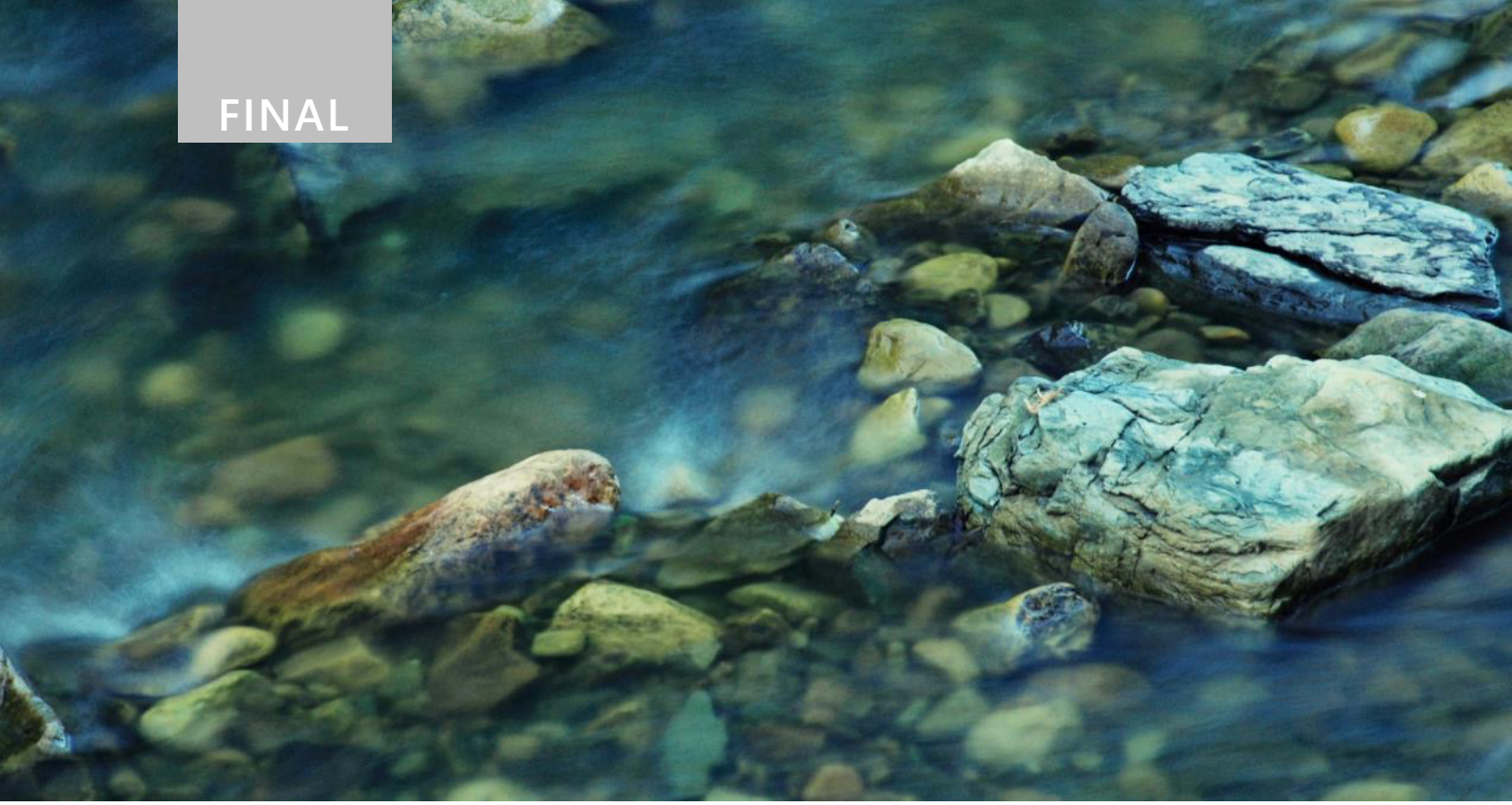
FINAL



August 2026
Former Intalco Smelter Site

ANCHOR QEA

# Post-Closure Groundwater Monitoring Third Report, Year 2025

Prepared for Intalco Aluminum, LLC

FINAL

August 2026
Former Intalco Smelter Site

# Post-Closure Groundwater Monitoring Third Report, Year 2025

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FINAL

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# ABBREVIATIONS

| | |
|---|---|
| µmhos/cm | micromhos per centimeter |
| 2011 Post-Closure Plan | *Supplemental Operations Plan and Final Closure/Post-Closure Plan* |
| 2025 Post-Closure Plan | *Revised Triple Lined Landfill Post-Closure Plan* |
| DLL | double-lined landfill |
| DTB | depth to bottom |
| DTW | depth to water |
| Ecology | Washington State Department of Ecology |
| EPA | U.S. Environmental Protection Agency |
| GWQS | groundwater quality standard |
| Intalco | Intalco Aluminum, LLC |
| mg/L | milligrams per liter |
| Plant | former Intalco smelter |
| QA | quality assurance |
| QC | quality control |
| RCRA | Resource Conservation and Recovery Act |
| SQAPP | *Sampling and Quality Assurance Project Plan* |
| TLL | triple-lined landfill |
| WAC | Washington Administrative Code |

# 1 Introduction

This report summarizes field activities and presents results of groundwater monitoring of the uppermost aquifer surrounding the closed triple-lined landfill (TLL) and double-lined landfill (DLL) area at the former Intalco smelter (Plant) in Ferndale, Washington (Figure 1). Sampling was conducted in general accordance with the 2025 *Revised Triple-Lined Landfill Post-Closure Plan* (2025 Post-Closure Plan) for monitoring and maintenance (Anchor QEA 2025a) and in accordance with Washington Administrative Code (WAC) 173-303-610. The updated TLL permit application and closure plan are currently pending approval from the Washington State Department of Ecology (Ecology). Previous monitoring events were completed following the Ecology-approved *Supplemental Operations Plan and Final Closure/Post-Closure Plan* (2011 Post-Closure Plan; Anchor Environmental 2011). The 2025 Post-Closure Plan requires Intalco Aluminum, LLC (Intalco), to conduct groundwater quality sampling and report the direction and flow rate of groundwater on a quarterly basis every 5 years during the 30-year post-closure monitoring period. The post-closure period began in 2012; the first post-closure monitoring event was performed in 2015. Accordingly, this groundwater investigation serves as the third event of six groundwater sampling events to be performed through 2040.

In addition to groundwater sampling, monitoring well inspections were conducted in accordance with the 2025 Post-Closure Plan. Inspections included evaluation of well identification, condition, protective features, and water levels, as well as documentation of any evidence of damage or infiltration. All wells were inspected, including wells planned for decommissioning. Inspection findings are summarized in Section 3.1. Ecology approved decommissioning of wells SMW-4, SMW-5, SMW-11, SMW-16, SMW-17, and SMW-18, which were decommissioned in accordance with WAC 173-160-381, between November 10 and 21, 2025.

# 2 Site Background

Intalco operated an aluminum smelter at 4050 Mountain View Road in Ferndale, Washington, from 1966 until 2020. The now-closed DLL and TLL were initially constructed in 1986; lateral extension to the TLL was constructed in 1990. In July 1987, the first operational period monitoring plan was approved by Ecology and consisted of a network of nine shallow monitoring wells (SMW-02, SMW-03, SMW-06, SMW-08, SMW-09, SMW-10, SMW-11, SMW-12, and SMW-13) located throughout the northern portion of the site and surrounding the DLL and TLL facilities. In 1989, Ecology approved a revised operational period monitoring plan that added four more monitoring wells (SMW-14, SMW-15, SMW-16, and SMW-17). In 2000, Ecology required Intalco to install additional monitoring wells at approved locations in response to the Plant's request for waiver of the Resource Conservation and Recovery Act (RCRA) Interim Status regulation (Title 40 of *Code of Federal Regulations* Part 265) groundwater monitoring requirements. Consequently, two more monitoring wells were installed (SMW-18 and SMW-19). Monitoring well SMW-18 was dry upon installation, whereas SMW-19 produced groundwater and was added to the monitoring plan.

Upon closure of the TLL in 2011, Ecology approved the 2011 Post-Closure Plan, which specified groundwater monitoring and landfill cover maintenance for a period of 30 years post-closure, in accordance with WAC 173-303-610. As a result of analysis of groundwater monitoring results during the 22-year operational period, post-closure groundwater monitoring frequency was reduced from quarterly on an annual basis to quarterly every five years for the duration of the post-closure period. Originally, 15 wells were specified for groundwater monitoring, but this number was reduced to 11 upon Intalco's request to remove wells from the program due to the absence of groundwater in certain wells (SMW-04, SMW-05, SMW-11, SMW-16, SMW-17, and SMW-18). These 11 wells were sampled in 2015, 2020, and 2025.

Intalco decommissioned SMW-15 in 2021 after damage to the well casing was discovered. Monitoring well SMW-15R was installed as a replacement in 2021 and resampled in 2022. SMW-15/15R well decommissioning, installation, and supplemental sampling activities were reported separately (Anchor QEA 2022).

# 3 Well Inspections

This section describes groundwater well inspection methods and summarizes the results of the inspections per WAC 173-303-610.

## 3.1 Well Inspection Methods

Monitoring well inspections are required to be conducted annually during years when groundwater monitoring is required in accordance with the updated TLL permit application and 2025 Post-Closure Plan. Monitoring well inspections for all existing wells on the property were conducted in March and August 2025. Additional details regarding the monitoring well assessment are provided in the *Monitoring Well Assessment, Intalco Aluminum – Revised* (Anchor QEA 2025b).

Well inspections included the following:

- Verification of well ID tags and locks (if present)
- Physical condition assessments (cracks and damage to surface seal)
- Inspection of above-grade protection (i.e. bollards, blocks, metal covers, and/or aboveground standpipes)
- Inspection for surface water infiltration
- Visual and olfactory inspection for contamination or signs of vandalism
- Photographing monitoring wells, casings, covers, pads, and surrounding areas
- Measurement of depth to water (DTW) and depth to bottom (DTB) of well

All wells were inspected during each groundwater monitoring event. Monitoring well inspection forms are provided in Appendix A.

## 3.2 Well Inspection Summary

Various well conditions were observed throughout 2025 that warranted restoration. Well covers were repaired or replaced, and J-plugs were installed with combination locks for security. Monitoring well inspection forms were updated to reflect the changes made (Appendix A). Monitoring wells missing Ecology well ID tags were replaced with tags provided by Ecology's Well Resource group in November 2025. See Table 1 for a groundwater monitoring program summary, along with the updated Ecology well ID tag numbers.

Additional protection measures were implemented at select wells based on inspection findings to upgrade surface protection to reduce the potential for damage. Protective enhancements included installation of Ecology blocks and above-grade steel casings. All modifications were completed in coordination with Ecology and in accordance with WAC 173-160.

# 4 Groundwater Quality

## 4.1 Groundwater Sample Collection Methods

Groundwater samples were collected in general accordance with the *Sampling and Quality Assurance Project Plan* (SQAPP; Attachment 3 to Anchor QEA 2025a) and the low-flow method as outlined in the U.S. Environmental Protection Agency (EPA) document *Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*, produced in July 1996 and revised in September 2017 (EPA 2017). EPA's low-flow groundwater sampling procedure recommends a pumping rate of between 0.1 and 1 liter per minute during purging and sampling. The guidance document also recommends that water level drawdown should be less than 0.1 meter (0.3 foot) during the low-flow purging procedure. Drawdown was monitored with an electronic DTW meter to ensure a drawdown of no more than 0.1 meter. Continuous manual water depth measurements were taken during the duration of low-flow sampling and recorded on sampling logs (Appendix A). Quarterly groundwater level data are presented in Table 2, and sampling locations are shown in Figure 2.

Wells were purged until field parameters stabilized for three consecutive readings and were within the following ranges:

- pH: ± 0.1 unit
- Specific conductance: ± 3%
- Temperature: ± 1°C
- Turbidity: ± 10 nephelometric turbidity units

After stabilization, samples were collected directly from the pump discharge line into -laboratory-supplied containers and shipped to Apex Laboratories in Tigard, Oregon, under prescribed chain-of-custody procedures.

Groundwater level assessments were conducted prior to sampling by measuring the DTW and DTB at each monitoring well and comparing the water level in the well to as-built diagrams to ensure the water column was appropriate for sampling (groundwater was present within the well screen interval). DTW measured in monitoring wells SMW-08 and SMW-10 were recorded below the well screen elevation during each monitoring event (within the well sump), indicating groundwater was not representative of the groundwater column; therefore, samples were not collected, and the wells were marked as dry. During the fourth quarter monitoring event, the DTW at SMW-19 was measured at or just above the lower screen interval. However, upon placement of the pump and initiation of purging, the water level declined below the screened interval, indicating the well screen was not sufficiently connected with the water table to obtain a representative groundwater sample. Collecting a sample under these conditions would have required drawing water from the sump rather than from

the screened interval. Therefore, SMW-19 was documented as dry for that monitoring event, and no sample was collected. All wells determined to be dry during 2025 monitoring events were documented as such in the field notes, and corresponding documentation is provided in Appendix A. Laboratory reports for wells that were sampled are provided in Appendix B.

### *4.1.1 Data Quality*

Field quality assurance/quality control (QA/QC) procedures were implemented during the 2025 groundwater monitoring program in accordance with the approved SQAPP (Anchor QEA 2025a). Field QA procedures included acceptable practices for sample collection, handling, and periodic inspection of sampling equipment.

Field QA samples were collected concurrently with environmental samples to evaluate potential impacts associated with sample collection and handling. QA samples included equipment rinsate blanks, trip blanks, and field duplicates. Equipment rinsate blanks and field duplicates were collected at a frequency of one per monitoring event. Trip blanks, prepared by the analytical laboratory, accompanied sample containers into the field and returned to the laboratory with collected samples.

Additional sample volume was collected as needed to support laboratory analytical QA/QC procedures, including matrix spike and matrix spike duplicate analyses, in accordance with SQAPP requirements. Overall, field QA/QC measures were implemented as planned, and the resulting groundwater quality data are considered suitable for their intended use.

## 4.2 Groundwater Data Evaluation

The Ecology-approved monitoring plan requires Intalco to analyze groundwater samples for the following water quality parameters:

- Temperature
- pH
- Specific conductance
- Total aluminum
- Total calcium
- Chloride
- Total cyanide
- Total fluoride
- Total potassium
- Total sodium
- Sulfate

Table 3 summarizes groundwater quality data collected during the 2025 monitoring period. Analytical results are evaluated against applicable Washington State drinking water standards (WAC 246-290-310) and groundwater quality standards (GWQS; WAC 173-200).

### *4.2.1 Comparative Evaluation of 2025 to Historical Results*

Figures 3a through 3h present a breakdown by analyte of groundwater analytical results spanning 2020 through 2025, allowing for comparison between historical conditions and results collected during the 2025 monitoring year.

Overall, groundwater quality conditions observed during the 2025 monitoring period are generally consistent with historical conditions and do not indicate any new or increasing trends relative to prior monitoring years. Most analytes exhibited stable concentrations within historically observed ranges, with several parameters showing decreases relative to elevated concentrations reported in 2020.

Historical time-series plots were developed for years 2007 to 2026 and are provided as Appendix C. Historical time-series plots for years 1988 to 2020 developed by CH2M are provided in Appendix D for reference. The following summarizes observed trends from 2020 to 2025:

- Aluminum concentrations were previously reported to show notable increases during the 2020 quarterly monitoring period relative to historical and 2015 data. However, results from the 2025 monitoring year indicate that aluminum concentrations have decreased and generally returned to levels consistent with historical observations. In SMW-12, the aluminum concentration reported during the fourth quarter 2020 (196 milligrams per liter [mg/L]) decreased during 2025, with concentrations ranging from 0.027 to 0.052 mg/L throughout the monitoring year. Based on the time-series plots, the fourth quarter 2020 results appear anomalous and are confirmed by quarterly monitoring performed in 2025. Similarly, in SMW-15R, where aluminum concentrations reached 80.1 mg/L during the first quarter 2020, concentrations declined after reinstallation in 2022 to 0.44 mg/L and to 0.05 mg/L by the fourth quarter 2025. Increased concentrations of aluminum appear to be attributed to the monitoring well damage. Across all monitored wells, aluminum concentrations during the 2025 monitoring year generally ranged from approximately 0.05 to 1.0 mg/L.
- Calcium concentrations have been generally consistent over time, with no notable changes observed between the 2020 and 2025 monitoring periods. Concentrations across most wells remain within historical ranges. Minor decreases were observed in SMW-03 and SMW-15; average calcium concentrations in SMW-03 decreased from approximately 140 mg/L in 2020 to approximately 120 mg/L in 2025, whereas concentrations in SMW-15 decreased from an average of approximately 25 mg/L in 2020 to approximately 16 mg/L in 2025. These changes

are not considered indicative of a significant trend and remain consistent with historical groundwater quality conditions.

- Chloride concentrations across most monitoring wells have historically been, and continue to be, below the GWQS of 250 mg/L. An exception is SMW-03, where chloride concentrations that exceeded the GWQS during the 2020 monitoring year (maximum concentration of 420 mg/L in the fourth quarter) decreased during the 2025 monitoring year. Although concentrations in SMW-03 remained above the GWQS during the early quarters of 2025, they declined to 212 mg/L by the fourth quarter, falling below the GWQS. In SMW-12, chloride concentrations continue the decreasing trend observed in prior monitoring years, with all 2025 quarterly results remaining below the GWQS. Overall, results indicate stable chloride concentrations with localized, improving trends in wells that previously exhibited exceedances.
- Cyanide concentrations are consistently detected below the GWQS of 0.2 mg/L, and no exceedances were observed during this monitoring period. Cyanide concentrations across all monitoring wells are generally low and have historically remained within a narrow range; 2025 concentrations ranged from non-detect up to the maximum observed concentration of approximately 0.06 mg/L. This concentration range is consistent with historically reported non-detect conditions and indicates stable groundwater quality with respect to cyanide.
- Fluoride concentrations are consistently detected below the GWQS of 4.0 mg/L. During the 2020 monitoring year, fluoride concentrations in SMW-15 exceeded the GWQS, representing the first documented exceedance at that location. Further inspection of SMW-15 indicated that the well was damaged and data were not reflective of water quality conditions within the target aquifer. Following the decommissioning of SMW-15 and installation of replacement well SMW-15R, fluoride concentrations measured during the 2025 monitoring period were below the GWQS at all monitoring wells, including SMW-15R. The highest fluoride concentration observed in 2025 was approximately 1.16 mg/L, with concentrations across all wells generally ranging from non-detects to 1.16 mg/L over the four monitoring quarters. These concentrations are consistent with historically reported non-detect or low-level fluoride results and reflect stable groundwater quality conditions relative to prior monitoring periods.
- pH values were within the GWQS range of 6.5 to 8.5 for all monitoring wells and all sampling events during the 2025 monitoring period. Evaluation of the results indicate that pH values continue to exhibit natural temporal variability; however, no exceedances of the GWQS were observed in 2025. The highest concentration was reported at SMW-19 during the fourth quarter at 8.4.
- Potassium concentrations are fairly consistent over time for most monitoring wells. No elevated potassium concentrations were observed during the 2025 monitoring period, and concentrations remain within historically observed ranges across the monitoring network.

- Sodium concentrations were generally stable across all monitoring wells during the 2025 monitoring period. An exception was observed in SMW-03, where sodium concentrations increased to a maximum of approximately 72 mg/L during the second quarter 2025, followed by a decrease to approximately 42 mg/L by the fourth quarter. Overall, sodium concentrations at SMW-03 during 2025 are lower than those observed during the 2020 monitoring period.
- Specific conductance levels during the 2025 monitoring period remained generally consistent with historical observations. In downgradient SMW-03, specific conductance exceeded the GWQS of 700 micromhos per centimeter (µmhos/cm) during all four monitoring quarters, with a maximum concentration of approximately 1,688 µmhos/cm, consistent with exceedances observed throughout the period of record. In SMW-12, specific conductance exceeded the GWQS during the fourth quarter 2025, with a reported value of approximately 768 µmhos/cm. Specific conductance in the background well SMW-13 fluctuated around the GWQS during 2025, with concentrations ranging from approximately 662 to 709 µmhos/cm across all monitoring quarters. Overall, results indicate stable specific conductance conditions with continued localized exceedances consistent with historical monitoring results.
- Sulfate concentrations are consistently detected below the GWQS of 250 mg/L, and no exceedances were observed during the 2025 monitoring period. Similar to prior monitoring years, sulfate concentrations exhibit some temporal variability; however, concentrations during 2025 are comparable to those observed in 2020. Results indicate no substantive change in sulfate trends, and concentrations remain consistent with historical groundwater quality conditions.

### *4.2.2 2025 Groundwater Analytical Results Summary*

Table 3 provides a summary of groundwater analytical results for the 2025 monitoring year, including a comprehensive tabulation of exceedances relative to applicable GWQS. During the 2025 monitoring period, GWQS were met in all wells with the exception of three, in which exceedances of chloride or specific conductance were observed. The following parameters exceeded the GWQS in the indicated wells for one or more quarterly monitoring events:

- Chloride in SMW-03
  - Consistent with 2020, concentrations exceeded the GWQS of 250 mg/L during the first and second quarters 2025, at approximately 1.3 and 1.4 times the GWQS, respectively. Concentrations subsequently decreased below the GWQS for the third and fourth quarters.
- Specific conductance in SMW-03, SMW-12, and SMW-13
  - SMW-03: Concentrations exceeded the GWQS of 700 µmhos/cm from the second through fourth quarters 2025, with a maximum concentration of approximately 2.3 times the GWQS in the second quarter. Concentrations are generally consistent with

reported concentrations in 2020, with a steep decrease in the third and fourth quarter of 2025.

- SMW-12: Concentrations exceeded the GWQS during the fourth quarter 2025, with a concentration of 1.1 times the standard. Concentrations were generally consistent with reported concentrations in 2020. Remaining concentrations were stable below or at the standard.
- SMW-13: Concentrations exceeded the GWQS during the first, third, and fourth quarters 2025, with concentrations marginally above the standard (approximately 1.0 times the GWQS). Concentrations appear stable and are consistent with reported concentrations in 2020. Note that SMW-13 is considered to be the background well for the DLL and TLL area.

# 5 Groundwater Flow

This section discusses the methods and results of groundwater flow direction and rate calculations based on DTW measurements obtained during 2025 groundwater sampling. Figures 4 through 7 depict potentiometric surface contours and inferred groundwater flow directions across the site. Groundwater flow velocity calculations corresponding to the flow lines shown on the contour maps are summarized in Table 4.

In accordance with the 2025 Post-Closure Plan (Anchor QEA 2025a) and the requirements of WAC 173-303-610, the Plant evaluates groundwater flow direction and flow rate in the uppermost aquifer using quarterly groundwater-level data collected during each 5-year monitoring event. Groundwater elevations were measured at each monitoring well as part of the quarterly sampling program conducted in 2025.

The hydrogeologic framework beneath the site consists of an upper aquifer system composed of heterogeneous glacial deposits and the Esperance Sand, which serves as the primary shallow water-bearing unit near the former landfill areas. Underlying the Esperance Sand is the Cherry Point Formation, which contains both lower-permeability fine-grained intervals and deeper sand and gravel zones that form the regional aquifer. Previous investigations have shown that the contact between these formations is an erosional unconformity with substantial relief, creating an irregular boundary that allows localized hydraulic communication between shallow and deeper groundwater zones (MFG 2002). Accordingly, these zones are evaluated together as a single uppermost aquifer system for groundwater flow interpretation, and monitoring wells screened across both depth intervals are collectively used to develop potentiometric surface maps and assess site-wide groundwater flow direction.

Measured groundwater elevations were used to develop potentiometric surface maps for the uppermost aquifer for each quarterly monitoring event (Figures 4 through 7). Groundwater flow direction was interpreted from these maps by drawing flow paths perpendicular to the groundwater elevation contours, oriented from higher to lower hydraulic head. Each flow line was drawn such that the flow line began on an interpreted groundwater elevation contour and ended at a monitoring well with an observed DTW measurement. Minor adjustments to flow line orientation were applied where necessary to provide smooth and representative flow paths; such adjustments do not materially affect the calculated hydraulic gradients.

During the 2020 monitoring period, groundwater elevations from SMW-08 and SMW-10 were included in the development of potentiometric surface maps and groundwater flow calculations. During the 2025 monitoring period, however, the water present in SMW-08 and SMW-10 was measured below the bottom screen depth. As a result, these wells were excluded from the 2025 groundwater flow evaluations. These wells are indicated as “dry” in Figures 4 through 7 because the

groundwater elevation was recorded below the elevation of the screen bottom. The remaining monitoring wells provided sufficient spatial coverage to support interpretation of groundwater flow direction and calculation of groundwater flow velocities.

Groundwater flow velocities were calculated using hydraulic gradients derived from the flow lines ($i_1$ *to* $i_3$) displayed on the potentiometric maps and aquifer properties consistent with those presented in the CH2M (2020) report. The calculations employ a modified form of Darcy's Law to estimate average linear groundwater velocity:

**Equation 1**

$$V = \frac{Ki}{n}$$

where:

| | | |
|---|---|---|
| V | = | average linear groundwater flow velocity (length/time) |
| K | = | average hydraulic conductivity (length/time) |
| i | = | hydraulic gradient along the groundwater flow path (length/length) |
| n | = | estimated effective porosity (dimensionless) |

The input parameters used in the groundwater flow calculations are consistent with those applied in the CH2M 2020 annual report (CH2M 2020) and are summarized as follows:

- **Hydraulic Conductivity (K):** During the 1987 well installation program, an undisturbed soil sample of uppermost aquifer material (Esperance Sand) was collected from the 57- to 58-foot depth interval in the boring that later became monitoring well SMW-13. Laboratory triaxial cell permeability testing of this sample yielded a hydraulic conductivity of $1.4 \times 10^{-4}$ centimeters per second.
- **Hydraulic Gradient (i):** Hydraulic gradients were determined from the quarterly potentiometric surface maps (Figures 4 through 7). For each quarterly map, three representative groundwater flow paths ($i_1$ *to* $i_3$) were selected to account for spatial variability in the hydraulic gradient across the site. In calculating the hydraulic gradient, the length of each flow path was divided by the change in potentiometric head along the flow path.
- **Effective Porosity (n):** The effective porosity of the uppermost aquifer, consisting primarily of silty sand and sandy silt, was assumed to be 0.20, consistent with values reported by EPA (EPA 1989) and used in the 2020 annual report (CH2M 2020).

Groundwater flow rates calculated using this approach are considered representative of site conditions and are directly comparable to previously reported results due to the consistent application of methods and aquifer parameters.

The three groundwater flow paths and associated flow velocities calculated for the 2025 monitoring period are similar to those identified during previous monitoring years, including the 2020 monitoring period (CH2M 2020). Groundwater flow velocities calculated for 2025 generally ranged from approximately 0.12 to 0.23 foot per day, compared to velocities ranging from approximately 0.20 to 0.26 foot per day during 2020. Although the calculated velocities for 2025 are slightly lower, they remain within the same order of magnitude and are consistent with historical variability. No significant changes in groundwater flow direction or overall flow patterns were identified during the 2025 monitoring period. Accordingly, the existing groundwater monitoring network continues to be appropriately positioned downgradient to detect a potential release from the closed landfill area to the uppermost aquifer at the site.

# 6 Summary and Recommendations

Groundwater quality data collected during the 2025 monitoring year are generally consistent with historical monitoring results and do not indicate new or increasing trends relative to previous years. Eleven monitoring wells are included in the post-closure groundwater monitoring network. Of these wells, the majority exhibited concentrations below applicable GWQS for all monitored constituents during 2025. The following parameters exceeded the applicable GWQS in one or more quarterly monitoring events during 2025:

- Chloride in SMW-03
- Specific conductance in SMW-03, SMW-12, and SMW-13

These exceedances are consistent with long-term historical monitoring results and do not represent new exceedance locations.

Groundwater flow directions and flow velocities evaluated for the 2025 monitoring period are consistent with historical conditions, and no significant changes in groundwater flow direction or velocity were identified. The existing monitoring well network remains appropriately positioned downgradient to detect a potential release from the closed landfill area to the uppermost aquifer at the site.

No changes to the Ecology-approved post-closure groundwater monitoring program are recommended at this time. Continued implementation of established field sampling procedures and documentation practices is recommended to ensure consistency and data quality for future monitoring events.

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# Tables

**Table 1**

**Intalco Groundwater Monitoring Program Summary**

| Well No. | Required Sampling Frequency | Well Designation | Ecology Well ID | Construction Date | Latitude/Longitude | Laboratory Analytes |
|---|---|---|---|---|---|---|
| SMW-2 | Quarterly in 2015 2020 2025 2030 2035 2040 | Point of compliance well | AAF935 | June 1983 | 48.848453, 122.710456 | Temperature, pH, specific conductance, total aluminum, total calcium, chloride, total cyanide, total fluoride, total potassium, total sodium, sulfate |
| SMW-3 | | Point of compliance well | AAF934 | June 1983 | 48.848275, 122.712478 | |
| SMW-6 | | Additional monitoring location | AAF932 | February 1986 | 48.851133, 122.709514 | |
| SMW-8 | | Point of compliance well | AAF933 | March 1986 | 48.8491, 122.713781 | |
| SMW-9 | | Additional monitoring location | AAF931 | August 1987 | 48.849661, 122.709442 | |
| SMW-10 | | Additional monitoring location | AAF930 | August 1987 | 48.849344, 122.709114 | |
| SMW-12 | | Point of compliance well | AAF936 | September 1987 | 48.848794, 122.708778 | |
| SMW-13 | | Background monitoring well | AAF939 | Unknown | 48.852786, 122.709106 | |
| SMW-14 | | Point of compliance well | AAF937 | June 1990 | 48.850706, 122.706172 | |
| SMW-15R[1] | | Additional monitoring location | BNY-874 | February 2022 | 48.847336, 122.707312 | |
| SMW-19 | | Point of compliance well | AAF938 | August 2000 | 48.850139, 122.705844 | |

Note:

1. SMW-15R was installed in 2022 to replace damaged monitoring well SMW-15 previously installed in June 1990.

**Table 2**
**2025 Quarterly Groundwater Level Data**

| Well No. | 2025 Measuring Quarter | As-Built Well Depth (feet bgs) | As-Built Well Screen (feet bgs) | Measuring Point Elevation (feet AMSL[a]) | DTW (feet) | Water Elevation (feet) |
|---|---|---|---|---|---|---|
| SMW-2 | Q1 – February | 74 | 61–74 | 199 | 63.88 | 135.12 |
| | Q2 – May | | | | 63.60 | 135.40 |
| | Q3 – August | | | | 63.14 | 135.86 |
| | Q4 – November | | | | 63.45 | 135.55 |
| SMW-3 | Q1 – February | 58 | 39–54 | 199 | 51.20 | 147.80 |
| | Q2 – May | | | | 51.34 | 147.66 |
| | Q3 – August | | | | 51.42 | 147.58 |
| | Q4 – November | | | | 51.30 | 147.70 |
| SMW-6 | Q1 – February | 68 | 53–68 | 214 | 61.05 | 152.95 |
| | Q2 – May | | | | 61.00 | 153.00 |
| | Q3 – August | | | | 61.05 | 152.95 |
| | Q4 – November | | | | 60.92 | 153.08 |
| SMW-8 | Q1 – February | 54 | 34–49 | 196 | 53.40[b,c] | -- |
| | Q2 – May | | | | 53.34[b] | -- |
| | Q3 – August | | | | 53.32[b] | -- |
| | Q4 – November | | | | 53.25[b] | -- |
| SMW-9 | Q1 – February | 73 | 58–68 | 212 | 68.95[b] | -- |
| | Q2 – May | | | | 68.85 | 143.15 |
| | Q3 – August | | | | 68.85 | 143.15 |
| | Q4 – November | | | | 68.91 | 143.09 |
| SMW-10 | Q1 – February | 73.5 | 58.5–68.5 | 210 | 70.43[b] | -- |
| | Q2 – May | | | | 70.39[b] | -- |
| | Q3 – August | | | | 70.43[b] | -- |
| | Q4 – November | | | | 70.36[b] | -- |
| SMW-12 | Q1 – February | 82 | 67–77 | 204 | 69.11 | 134.89 |
| | Q2 – May | | | | 68.38 | 135.62 |
| | Q3 – August | | | | 68.35 | 135.65 |
| | Q4 – November | | | | 68.80 | 135.20 |
| SMW-13 | Q1 – February | 81 | 66–76 | 216 | 61.71 | 154.29 |
| | Q2 – May | | | | 61.28 | 154.72 |
| | Q3 – August | | | | 60.25 | 155.75 |
| | Q4 – November | | | | 59.90 | 156.10 |
| SMW-14 | Q1 – February | 175 | 162–172 | 221 | 166.05 | 54.95 |
| | Q2 – May | | | | 166.09 | 54.91 |
| | Q3 – August | | | | 166.26 | 54.74 |
| | Q4 – November | | | | 166.30 | 54.70 |

**Table 2**
**2025 Quarterly Groundwater Level Data**

| Well No. | 2025 Measuring Quarter | As-Built Well Depth (feet bgs) | As-Built Well Screen (feet bgs) | Measuring Point Elevation (feet AMSL[a]) | DTW (feet) | Water Elevation (feet) |
|---|---|---|---|---|---|---|
| SMW-15R | Q1 – February | 130 | 115.5–125.5 | 198 | 124.52 | 73.48 |
| | Q2 – May | | | | 124.18 | 73.82 |
| | Q3 – August | | | | 124.42 | 73.58 |
| | Q4 – November | | | | 124.54 | 73.46 |
| SMW-19 | Q1 – February | 178 | 163–173 | 218 | 171.65[d] | 46.35 |
| | Q2 – May | | | | 172.30 | 45.70 |
| | Q3 – August | | | | 172.28 | 45.72 |
| | Q4 – November | | | | 172.43[b] | -- |

Notes:

a. Feet AMSL according to NGVD

b. Insufficient water within well for sampling (below screen interval).

c. SMW-08 was sampled and analyzed in Q1 but was determined post-hoc that the sample is not representative of groundwater conditions because water levels were below the screened interval. Data from SMW-08 were not used, and the well was excluded from sampling in subsequent sampling events.

d. Due to equipment limitations, the sample from SMW-19 was collected using a hand bailer; however, the sample was not analyzed because it was collected from below the well screened interval. New sampling equipment was implemented during subsequent monitoring quarters, allowing for sample collection within the screened interval during Q2 and Q3.

AMSL: above mean sea level

bgs: below ground surface

DTW: depth to water

NGVD: National Geodetic Vertical Datum

Q1: first quarter

Q2: second quarter

Q3: third quarter

Q4: fourth quarter

**Table 3**
**2025 Quarterly Groundwater Analytical Results**

| Chemical | Method | Alcoa Intalco GW Criteria | Task: AlcoaIntalco_GW2025 / Location ID: SMW-2 / Sample ID: SMW#2-20250220 / Sample Date: 2/20/2025 / Sample Type: N / Matrix: WG / X: -122.710456 / Y: 48.848453 | Task: AlcoaIntalco_GW2025 / Location ID: SMW-2 / Sample ID: SMW-2-20250509 / Sample Date: 5/9/2025 / Sample Type: N / Matrix: WG / X: -122.710456 / Y: 48.848453 | Task: AlcoaIntalco_GW2025 / Location ID: SMW-2 / Sample ID: SMW-2-20250806 / Sample Date: 8/6/2025 / Sample Type: N / Matrix: WG / X: -122.710456 / Y: 48.848453 | Task: AlcoaIntalco_GW2025 / Location ID: SMW-2 / Sample ID: SMW-2-20251104 / Sample Date: 11/4/2025 / Sample Type: N / Matrix: WG / X: -122.710456 / Y: 48.848453 | Task: AlcoaIntalco_GW2025 / Location ID: SMW-3 / Sample ID: SMW#3-20250220 / Sample Date: 2/20/2025 / Sample Type: N / Matrix: WG / X: -122.712478 / Y: 48.848275 | Task: AlcoaIntalco_GW2025 / Location ID: SMW-3 / Sample ID: SMW-3-20250507 / Sample Date: 5/7/2025 / Sample Type: N / Matrix: WG / X: -122.712478 / Y: 48.848275 | Task: AlcoaIntalco_GW2025 / Location ID: SMW-3 / Sample ID: SMW-3-20250806 / Sample Date: 8/6/2025 / Sample Type: N / Matrix: WG / X: -122.712478 / Y: 48.848275 | Task: AlcoaIntalco_GW2025 / Location ID: SMW-3 / Sample ID: SMW-3-20251105 / Sample Date: 11/5/2025 / Sample Type: N / Matrix: WG / X: -122.712478 / Y: 48.848275 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Conventional Parameters (unitless)** | | | | | | | | | | |
| pH | SM4500HB | 8.5 | **8.2** | **8.1** | **8.1** | **8.0** | **8.1** | **7.7** | **7.7** | **7.6** |
| **Conventional Parameters (deg C)** | | | | | | | | | | |
| Temperature (field) | Field Measure | | **10.8** | **14.5** | **15.5** | **13.8** | **9.6** | **13.6** | **15.2** | **13.3** |
| **Conventional Parameters (mg/L)** | | | | | | | | | | |
| Chloride | E300.0 | 250 | **79.8** | **61.0** | **58.9** | **61.5** | **319** | **356** | **221** | **212** |
| Cyanide | D7511-12 | 0.2 | 0.00500 U | **0.00278 J** | 0.00500 U | 0.00500 U | **0.00667** | **0.0114** | **0.00264 J** | **0.00316 J** |
| Fluoride | E300.0 | 4 | 1.00 U | 1.00 U | -- | **0.593 J** | 1.00 U | 1.00 U | -- | 1.00 U |
| Fluoride | SM4500FC | 4 | -- | -- | **0.155** | **0.649** | -- | -- | **0.157** | **0.201** |
| Sulfate | E300.0 | 250 | **12.9** | **12.2** | **12.2** | **12.3** | **15.5** | **16.6** | **12.8** | **13.2** |
| **Conventional Parameters (uS/cm)** | | | | | | | | | | |
| Conductivity | SM2510B | 700 | -- | **485** | **495** | **479** | -- | **1640** | **1200** | **1150** |
| **Metals (mg/L)** | | | | | | | | | | |
| Aluminum | SW6020B | | **0.183** | **1.26** | **0.567** | **1.58** | **0.0576** | 0.05 U | 0.05 U | **0.0534** |
| Calcium | SW6020B | | **48.1** | **44.8** | **44.2** | **44.6** | **123** | **135** | **110** | **114** |
| Potassium | SW6020B | | **3.72** | **3.38** | **3.5** | **3.46** | **4.87** | **4.93** | **4.71** | **4.84** |
| Sodium | SW6020B | | **16.1** | **15.3** | **14.9** | **16.9** | **67** | **72.4** | **43.3** | **42.6** |

**Table 3**
**2025 Quarterly Groundwater Analytical Results**

| Chemical | Method | Alcoa Intalco GW Criteria | Task: AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Location ID: SMW-6 | SMW-6 | SMW-6 | SMW-6 | SMW-9 | SMW-9 | SMW-9 | SMW-9 |
| | | | Sample ID: SMW#6-20250218 | SMW-6-20250507 | SMW-6-20250807 | SMW-6-20251105 | SMW-9-20250221[1] | SMW-9-20250507 | SMW-9-20250806 | SMW-9-20251105 |
| | | | Sample Date: 2/18/2025 | 5/7/2025 | 8/7/2025 | 11/5/2025 | 2/21/2025 | 5/7/2025 | 8/6/2025 | 11/5/2025 |
| | | | Sample Type: N | N | N | N | N | N | N | N |
| | | | Matrix: WG | WG | WG | WG | WG | WG | WG | WG |
| | | | X: -122.709514 | -122.709514 | -122.709514 | -122.709514 | -122.709442 | -122.709442 | -122.709442 | -122.709442 |
| | | | Y: 48.851133 | 48.851133 | 48.851133 | 48.851133 | 48.849661 | 48.849661 | 48.849661 | 48.849661 |
| **Conventional Parameters (unitless)** | | | | | | | | | | |
| pH | SM4500HB | 8.5 | **7.8** | **7.6** | **7.6** | **7.5** | -- | **7.3** | **7.2** | **7.2** |
| **Conventional Parameters (deg C)** | | | | | | | | | | |
| Temperature (field) | Field Measure | | **9.9** | **13.7** | **14.1** | **13.0** | -- | **18.0** | **15.0** | **13.6** |
| **Conventional Parameters (mg/L)** | | | | | | | | | | |
| Chloride | E300.0 | 250 | **23.2** | **25.1** | **23.7** | **24.3** | -- | **10.5** | **11.1** | **12.4** |
| Cyanide | D7511-12 | 0.2 | 0.00500 U | **0.00331 J** | 0.00500 U | 0.00500 U | -- | **0.0353** | **0.0416** | **0.0580** |
| Fluoride | E300.0 | 4 | **2.07** | **1.29** | -- | **1.12** | -- | 1.00 U | -- | 1.00 U |
| Fluoride | SM4500FC | 4 | -- | -- | **1.13** | **1.16** | -- | -- | 0.100 U | 0.100 U |
| Sulfate | E300.0 | 250 | **28.0** | **26.7** | **28.0** | **29.2** | -- | **85.8** | **79.1** | **82.0** |
| **Conventional Parameters (uS/cm)** | | | | | | | | | | |
| Conductivity | SM2510B | 700 | -- | **695** | **685** | **686** | **554** [2] | **493** | **513** | **505** |
| **Metals (mg/L)** | | | | | | | | | | |
| Aluminum | SW6020B | | **0.555** | **0.826** | **0.386** | **0.37** | -- | **0.0379 J** | **0.0257 J** | **0.0507** |
| Calcium | SW6020B | | **71.2** | **78.8** | **73.7** | **78.6** | -- | **46.6** | **48.4** | **49.9** |
| Potassium | SW6020B | | **2.31** | **2.18** | **2.3** | **2.45** | -- | **1.88** | **2.22** | **2.27** |
| Sodium | SW6020B | | **19.2** | **18.8** | **18.6** | **19.8** | -- | **16.4** | **16.7** | **16.8** |

**Table 3**
**2025 Quarterly Groundwater Analytical Results**

| Chemical | Method | Alcoa Intalco GW Criteria | Task | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Location ID | SMW-12 | SMW-12 | SMW-12 | SMW-12 | SMW-13 | SMW-13 | SMW-13 | SMW-13 |
| | | | Sample ID | SMW-12-20250218[1] | SMW-12-20250506 | SMW-12-20250805 | SMW-12-20251105 | SMW#13-20250218 | SMW-13-20250506 | SMW-13-20250807 | SMW-13-20251104 |
| | | | Sample Date | 2/18/2025 | 5/6/2025 | 8/5/2025 | 11/5/2025 | 2/18/2025 | 5/6/2025 | 8/7/2025 | 11/4/2025 |
| | | | Sample Type | N | N | N | N | N | N | N | N |
| | | | Matrix | WG | WG | WG | WG | WG | WG | WG | WG |
| | | | X | -122.708778 | -122.708778 | -122.708778 | -122.708778 | -122.709106 | -122.709106 | -122.709106 | -122.709106 |
| | | | Y | 48.848794 | 48.848794 | 48.848794 | 48.848794 | 48.852786 | 48.852786 | 48.852786 | 48.852786 |
| **Conventional Parameters (unitless)** | | | | | | | | | | | |
| pH | SM4500HB | 8.5 | | -- | **7.4** | **7.3** | **7.1** | **7.3** | **7.5** | **7.2** | **7.1** |
| **Conventional Parameters (deg C)** | | | | | | | | | | | |
| Temperature (field) | Field Measure | | | -- | **14.2** | **14.5** | **12.8** | **9.9** | **14.2** | **13.4** | **11.9** |
| **Conventional Parameters (mg/L)** | | | | | | | | | | | |
| Chloride | E300.0 | 250 | | -- | **77.2** | **89.5** | **145** | **8.19** | **8.75** | **8.30** | **8.54** |
| Cyanide | D7511-12 | 0.2 | | -- | **0.0656** | **0.0610** | **0.130** | 0.00500 U | 0.00500 U | 0.00500 U | 0.00500 U |
| Fluoride | E300.0 | 4 | | -- | 1.00 U | -- | 1.00 U | 1.00 U | 1.00 U | -- | 1.00 U |
| Fluoride | SM4500FC | 4 | | -- | -- | **0.115** | 0.100 U | -- | -- | 0.100 U | **0.114** |
| Sulfate | E300.0 | 250 | | -- | **31.4** | **33.7** | **44.3** | **21.4** | **20.8** | **18.6** | **19.2** |
| **Conventional Parameters (uS/cm)** | | | | | | | | | | | |
| Conductivity | SM2510B | 700 | | **518** [2] | **506** | **567** | **768** | -- | **713** | **704** | **689** |
| **Metals (mg/L)** | | | | | | | | | | | |
| Aluminum | SW6020B | | | -- | **0.0268 J** | **0.0515** | **0.0398 J** | **0.402** | **0.0598** | 0.05 U | 0.05 U |
| Calcium | SW6020B | | | -- | **34.6** | **39.1** | **59.9** | **83.4** | **82.4** | **76.5** | **77.7** |
| Potassium | SW6020B | | | -- | **1.42** | **1.65** | **2.01** | **3.53** | **3.5** | **3.47** | **3.55** |
| Sodium | SW6020B | | | -- | **31.1** | **35.3** | **42.6** | **19.9** | **19.5** | **19.4** | **19.3** |

**Table 3**
**2025 Quarterly Groundwater Analytical Results**

| Chemical | Method | Alcoa Intalco GW Criteria | Task: AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 | AlcoaIntalco_GW2025 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Location ID: SMW-14 | SMW-14 | SMW-14 | SMW-14 | SMW-15R | SMW-15R | SMW-15R | SMW-15R |
| | | | Sample ID: SMW#14-20250226 | SMW-14-20250508 | SMW-14-20250805 | SMW-14-20251106 | SMW#15R-20250225 | SMW-15R-20250508 | SMW-15R-20250807 | SMW-15R-20251106 |
| | | | Sample Date: 2/26/2025 | 5/8/2025 | 8/5/2025 | 11/6/2025 | 2/25/2025 | 5/8/2025 | 8/7/2025 | 11/6/2025 |
| | | | Sample Type: N | N | N | N | N | N | N | N |
| | | | Matrix: WG | WG | WG | WG | WG | WG | WG | WG |
| | | | X: -122.706172 | -122.706172 | -122.706172 | -122.706172 | -122.707312 | -122.707312 | -122.707312 | -122.707312 |
| | | | Y: 48.850706 | 48.850706 | 48.850706 | 48.850706 | 48.847336 | 48.847336 | 48.847336 | 48.847336 |
| **Conventional Parameters (unitless)** | | | | | | | | | | |
| pH | SM4500HB | 8.5 | **8.0** | **8.0** | **8.1** | **8.0** | **7.3** | **7.4** | **7.3** | **7.3** |
| **Conventional Parameters (deg C)** | | | | | | | | | | |
| Temperature (field) | Field Measure | | **9.1** | **11.5** | **12.2** | **10.9** | **12.2** | **21.3** | **19.3** | **19.2** |
| **Conventional Parameters (mg/L)** | | | | | | | | | | |
| Chloride | E300.0 | 250 | **8.92** | **9.19** | **8.87** | **9.51** | **5.52** | **5.46** | **5.60** | **5.54** |
| Cyanide | D7511-12 | 0.2 | 0.00500 U | 0.00500 U | 0.00500 U | 0.00500 U | 0.00500 U | 0.00500 U | 0.00500 U | 0.00500 U |
| Fluoride | E300.0 | 4 | 1.00 U | 1.00 U | -- | 1.00 U | 1.00 U | 1.00 U | -- | 1.00 U |
| Fluoride | SM4500FC | 4 | -- | -- | 0.100 U | 0.100 U | -- | -- | **0.345** | **0.362** |
| Sulfate | E300.0 | 250 | **38.0** | **41.6** | **39.9** | **43.2** | **49.7** | **53.5** | **52.2** | **53.9** |
| **Conventional Parameters (uS/cm)** | | | | | | | | | | |
| Conductivity | SM2510B | 700 | -- | **333** | **325** | **335** | -- | **210** | **208** | **206** |
| **Metals (mg/L)** | | | | | | | | | | |
| Aluminum | SW6020B | | **0.115** | **0.15** | **0.059** | 0.05 U | **0.238** | **0.245** | **0.181** | **0.05** |
| Calcium | SW6020B | | **35.2** | **33.1** | **33.5** | **35.3** | **17.1** | **16.1** | **16.4** | **16.2** |
| Potassium | SW6020B | | **3.4** | **3.06** | **3.26** | **3.46** | **1.3** | **1.13** | **1.23** | **1.19** |
| Sodium | SW6020B | | **11.5** | **12.1** | **12.1** | **12.6** | **11.1** | **11.4** | **11.6** | **11.5** |

**Table 3**
**2025 Quarterly Groundwater Analytical Results**

| Chemical | Method | Alcoa Intalco GW Criteria | Task<br>Location ID<br>Sample ID<br>Sample Date<br>Sample Type<br>Matrix<br>X<br>Y<br>AlcoaIntalco_GW2025<br>SMW-19<br>SMW-19-20250225[1]<br>2/25/2025<br>N<br>WG<br>-122.705844<br>48.850139 | AlcoaIntalco_GW2025<br>SMW-19<br>SMW-19-20250508<br>5/8/2025<br>N<br>WG<br>-122.705844<br>48.850139 | AlcoaIntalco_GW2025<br>SMW-19<br>SMW-19-20250807<br>8/7/2025<br>N<br>WG<br>-122.705844<br>48.850139 |
|---|---|---|---|---|---|
| **Conventional Parameters (unitless)** | | | | | |
| pH | SM4500HB | 8.5 | -- | **8.0** | **8.4** |
| **Conventional Parameters (deg C)** | | | | | |
| Temperature (field) | Field Measure | | -- | **13** | **14.9** |
| **Conventional Parameters (mg/L)** | | | | | |
| Chloride | E300.0 | 250 | -- | **7.50** | **7.24** |
| Cyanide | D7511-12 | 0.2 | -- | **0.00671** | 0.00500 U |
| Fluoride | E300.0 | 4 | -- | 1.00 U | -- |
| Fluoride | SM4500FC | 4 | -- | -- | 0.100 U |
| Sulfate | E300.0 | 250 | -- | **42.8** | **37.3** |
| **Conventional Parameters (uS/cm)** | | | | | |
| Conductivity | SM2510B | 700 | **322.9** [2] | **308** | **292** |
| **Metals (mg/L)** | | | | | |
| Aluminum | SW6020B | | -- | 0.05 U | 0.05 U |
| Calcium | SW6020B | | -- | **25.5** | **24.1** |
| Potassium | SW6020B | | -- | **4.59** | **5.02** |
| Sodium | SW6020B | | -- | **11.6** | **11.5** |

**Table 3**
**2025 Quarterly Groundwater Analytical Results**

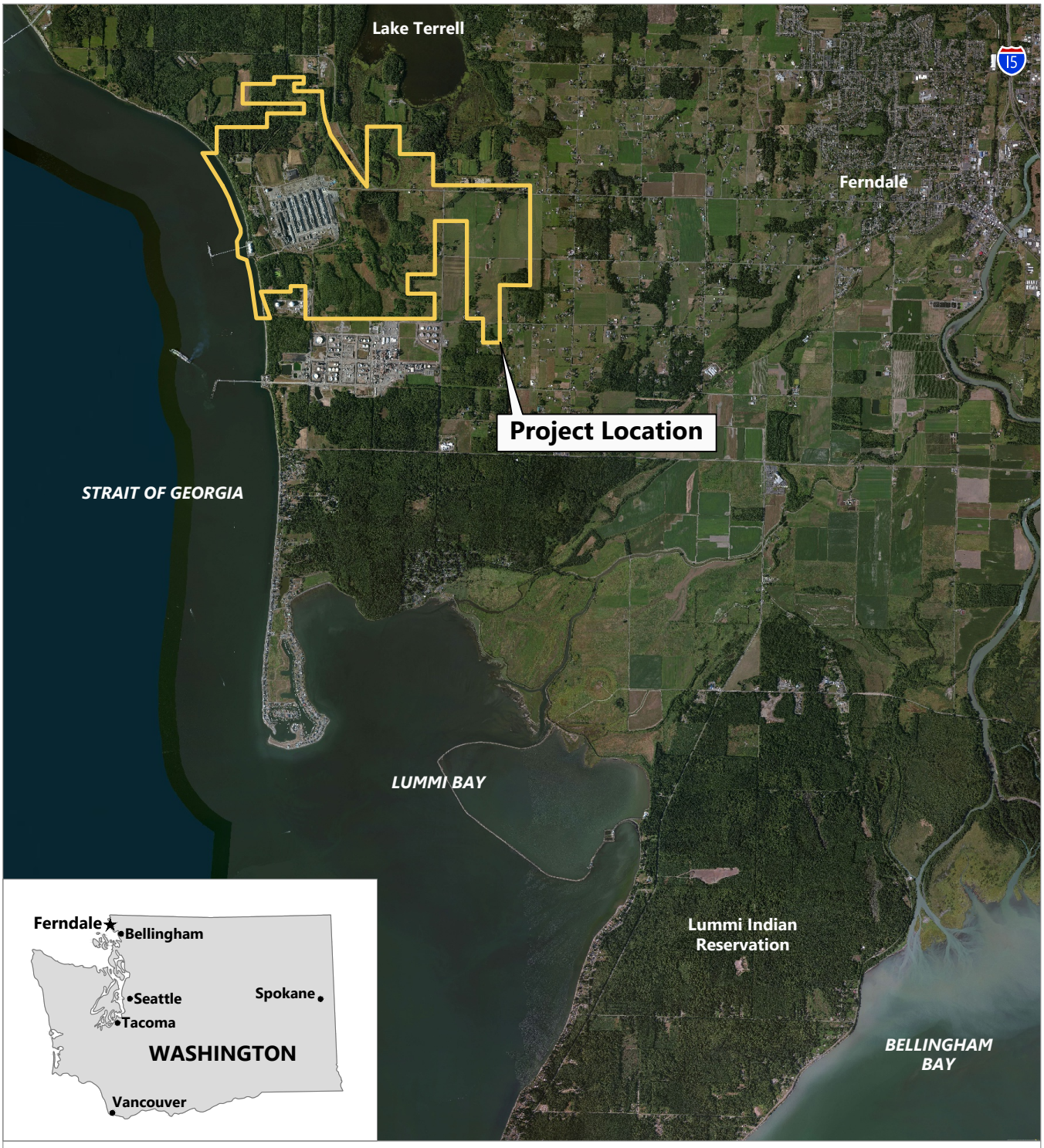
Notes:
Detected concentration is greater than Washington State Drinking Water Standards (WAC 246-290-310) and Groundwater Quality Standards (WAC 173-200).
**Bold: Detected result**
J: Estimated value
U: Compound analyzed for, but not detected above detection limit
Calculated values have been rounded to laboratory-reported significant digits
Horizontal coordinate datum is GCS North American Datum 1983 latitude/longitude.
1. Sample collection not analyzed due to insufficient water present at screen depth for sampling (below screen interval).
2. Value measured in the field using a water quality meter during low-flow sampling.
µS/cm: microsiemen per centimeter
deg C: degrees Celsius
mg/L: milligram per liter
WAC: Washington Administrative Code

**Table 4**
**2025 Quarterly Groundwater Flow Velocity**

| 2025 Quartey Event | Estimated Groundwater Flow Velocity (feet per day) | | |
|---|---|---|---|
| | Flow Line No. 1 | Flow Line No. 2 | Flow Line No. 3 |
| Q1 – February | 0.23 | 0.20 | 0.12 |
| Q2 – May | 0.23 | 0.20 | 0.12 |
| Q3 – August | 0.23 | 0.20 | 0.12 |
| Q4 – November | 0.23 | 0.20 | 0.12 |

Notes:
Q1: first quarter
Q2: second quarter
Q3: third quarter
Q4: fourth quarter

# Figures




**SOURCE:** Aerial ©2021 Microsoft Corporation ©2021 Maxar ©CNES (2021) Distribution Airbus DS
**HORIZONTAL DATUM:** Washington State Plane North Zone NAD83, U.S. Survey Feet

0 6,000
Feet

Publish Date: 2026/03/31 12:10 PM | User: hmerrick
Filepath: K:\Projects\0002-Alcoa Inc\Alcoa-Intalco Aluminum\Post-Closure GW Monitoring\0002-RP-000 (Vicinity Map).dwg Figure 1

ANCHOR QEA

**Figure 1**
**Vicinity Map**

Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**AERIAL SOURCE:** ©2024 Microsoft Corporation
©2024 Maxar ©CNES (2024) Distribution Airbus DS
©2024 TMAP MOBILITY Earthstar Geographics SIO
**HORIZONTAL DATUM:** Washington State Plane North Zone, NAD83/91, U.S. Survey Feet
**VERTICAL DATUM:** Alcoa Intalco Plant Datum

**LEGEND:**

- Existing Monitoring Well
- 2025 Decommissioned Monitoring Well
- 2021 Decommissioned Monitoring Well

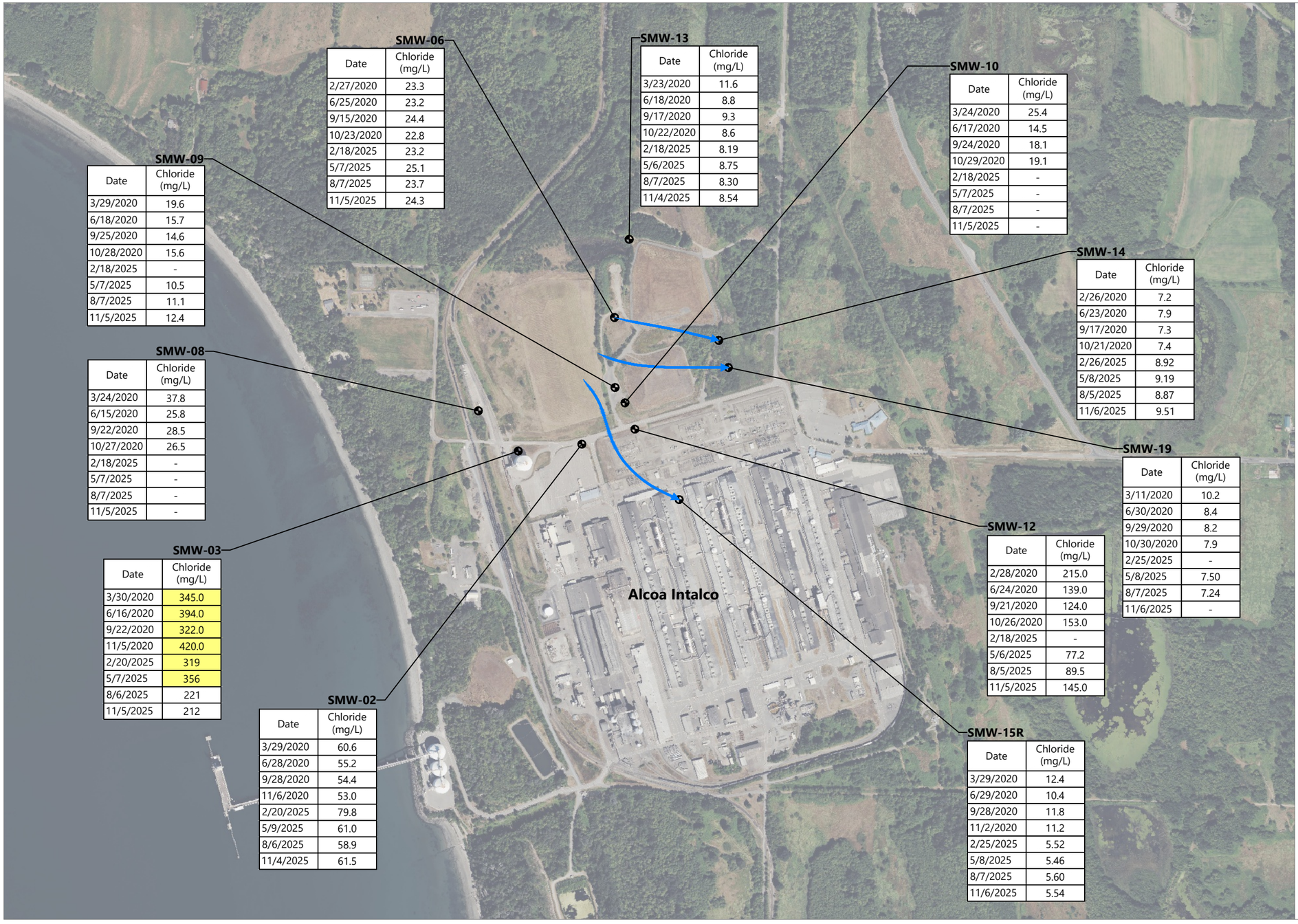
0 500
Feet

Publish Date: 2026/03/31 12:10 PM | User: hmerrick
Filepath: K:\Projects\0002-Alcoa Inc\Alcoa-Intalco Aluminum\Post-Closure GW Monitoring\0002-RP-012 (GW Mon Wells).dwg Figure 2

ANCHOR QEA

**Figure 2**
**Groundwater Monitoring Well Locations**

Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**SMW-06**

| Date | Chloride (mg/L) |
|---|---|
| 2/27/2020 | 23.3 |
| 6/25/2020 | 23.2 |
| 9/15/2020 | 24.4 |
| 10/23/2020 | 22.8 |
| 2/18/2025 | 23.2 |
| 5/7/2025 | 25.1 |
| 8/7/2025 | 23.7 |
| 11/5/2025 | 24.3 |

**SMW-13**

| Date | Chloride (mg/L) |
|---|---|
| 3/23/2020 | 11.6 |
| 6/18/2020 | 8.8 |
| 9/17/2020 | 9.3 |
| 10/22/2020 | 8.6 |
| 2/18/2025 | 8.19 |
| 5/6/2025 | 8.75 |
| 8/7/2025 | 8.30 |
| 11/4/2025 | 8.54 |

**SMW-10**

| Date | Chloride (mg/L) |
|---|---|
| 3/24/2020 | 25.4 |
| 6/17/2020 | 14.5 |
| 9/24/2020 | 18.1 |
| 10/29/2020 | 19.1 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-09**

| Date | Chloride (mg/L) |
|---|---|
| 3/29/2020 | 19.6 |
| 6/18/2020 | 15.7 |
| 9/25/2020 | 14.6 |
| 10/28/2020 | 15.6 |
| 2/18/2025 | - |
| 5/7/2025 | 10.5 |
| 8/7/2025 | 11.1 |
| 11/5/2025 | 12.4 |

**SMW-14**

| Date | Chloride (mg/L) |
|---|---|
| 2/26/2020 | 7.2 |
| 6/23/2020 | 7.9 |
| 9/17/2020 | 7.3 |
| 10/21/2020 | 7.4 |
| 2/26/2025 | 8.92 |
| 5/8/2025 | 9.19 |
| 8/5/2025 | 8.87 |
| 11/6/2025 | 9.51 |

**SMW-08**

| Date | Chloride (mg/L) |
|---|---|
| 3/24/2020 | 37.8 |
| 6/15/2020 | 25.8 |
| 9/22/2020 | 28.5 |
| 10/27/2020 | 26.5 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-19**

| Date | Chloride (mg/L) |
|---|---|
| 3/11/2020 | 10.2 |
| 6/30/2020 | 8.4 |
| 9/29/2020 | 8.2 |
| 10/30/2020 | 7.9 |
| 2/25/2025 | - |
| 5/8/2025 | 7.50 |
| 8/7/2025 | 7.24 |
| 11/6/2025 | - |

**SMW-03**

| Date | Chloride (mg/L) |
|---|---|
| 3/30/2020 | 345.0 |
| 6/16/2020 | 394.0 |
| 9/22/2020 | 322.0 |
| 11/5/2020 | 420.0 |
| 2/20/2025 | 319 |
| 5/7/2025 | 356 |
| 8/6/2025 | 221 |
| 11/5/2025 | 212 |

**SMW-12**

| Date | Chloride (mg/L) |
|---|---|
| 2/28/2020 | 215.0 |
| 6/24/2020 | 139.0 |
| 9/21/2020 | 124.0 |
| 10/26/2020 | 153.0 |
| 2/18/2025 | - |
| 5/6/2025 | 77.2 |
| 8/5/2025 | 89.5 |
| 11/5/2025 | 145.0 |

**SMW-02**

| Date | Chloride (mg/L) |
|---|---|
| 3/29/2020 | 60.6 |
| 6/28/2020 | 55.2 |
| 9/28/2020 | 54.4 |
| 11/6/2020 | 53.0 |
| 2/20/2025 | 79.8 |
| 5/9/2025 | 61.0 |
| 8/6/2025 | 58.9 |
| 11/4/2025 | 61.5 |

**SMW-15R**

| Date | Chloride (mg/L) |
|---|---|
| 3/29/2020 | 12.4 |
| 6/29/2020 | 10.4 |
| 9/28/2020 | 11.8 |
| 11/2/2020 | 11.2 |
| 2/25/2025 | 5.52 |
| 5/8/2025 | 5.46 |
| 8/7/2025 | 5.60 |
| 11/6/2025 | 5.54 |

**LEGEND:**

- Existing Monitoring Well
- Groundwater Flow Path

0 800
Feet

**AERIAL SOURCE:** ©2026 Microsoft Corporation ©2026 Maxar ©CNES (2026) Distribution Airbus DS ©2026 TMAP MOBILITY Earthstar Geographics SIO
**HORIZONTAL DATUM:** Washington State Plane North Zone, NAD83/91, U.S. Survey Feet
**VERTICAL DATUM:** Alcoa Intalco Plant Datum
**NOTES:**

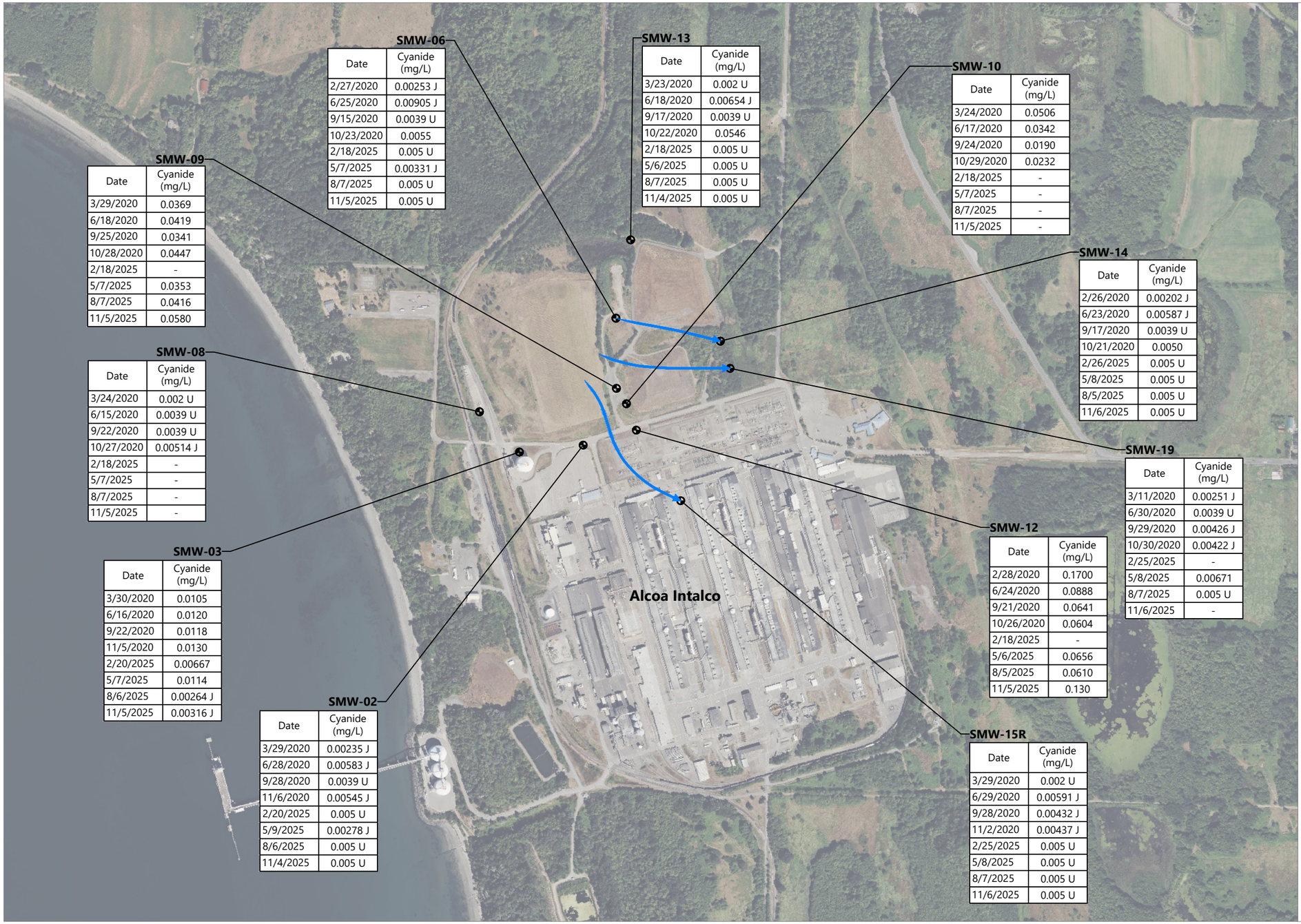
1. The screening level for chloride is 250 mg/L, the secondary drinking water maximum contaminant level (WAC 246-290). Yellow highlighted results exceed the screening level.
2. mg/L: milligram per liter
3. -: Insufficient water level within well for sampling (below screen interval)

Publish Date: 2026/03/31 12:10 PM | User: hmerrick
Filepath: K:\Projects\0002-Alcoa Inc\Alcoa-Intalco Aluminum\Post-Closure GW Monitoring\0002-RP-001 GW Mon Chloride.dwg | Figure 3a

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**Figure 3a**
**2020 to 2025 Groundwater Monitoring Results – Chloride**

Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**SMW-06**

| Date | Cyanide (mg/L) |
|---|---|
| 2/27/2020 | 0.00253 J |
| 6/25/2020 | 0.00905 J |
| 9/15/2020 | 0.0039 U |
| 10/23/2020 | 0.0055 |
| 2/18/2025 | 0.005 U |
| 5/7/2025 | 0.00331 J |
| 8/7/2025 | 0.005 U |
| 11/5/2025 | 0.005 U |

**SMW-13**

| Date | Cyanide (mg/L) |
|---|---|
| 3/23/2020 | 0.002 U |
| 6/18/2020 | 0.00654 J |
| 9/17/2020 | 0.0039 U |
| 10/22/2020 | 0.0546 |
| 2/18/2025 | 0.005 U |
| 5/6/2025 | 0.005 U |
| 8/7/2025 | 0.005 U |
| 11/4/2025 | 0.005 U |

**SMW-10**

| Date | Cyanide (mg/L) |
|---|---|
| 3/24/2020 | 0.0506 |
| 6/17/2020 | 0.0342 |
| 9/24/2020 | 0.0190 |
| 10/29/2020 | 0.0232 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-09**

| Date | Cyanide (mg/L) |
|---|---|
| 3/29/2020 | 0.0369 |
| 6/18/2020 | 0.0419 |
| 9/25/2020 | 0.0341 |
| 10/28/2020 | 0.0447 |
| 2/18/2025 | - |
| 5/7/2025 | 0.0353 |
| 8/7/2025 | 0.0416 |
| 11/5/2025 | 0.0580 |

**SMW-14**

| Date | Cyanide (mg/L) |
|---|---|
| 2/26/2020 | 0.00202 J |
| 6/23/2020 | 0.00587 J |
| 9/17/2020 | 0.0039 U |
| 10/21/2020 | 0.0050 |
| 2/26/2025 | 0.005 U |
| 5/8/2025 | 0.005 U |
| 8/5/2025 | 0.005 U |
| 11/6/2025 | 0.005 U |

**SMW-08**

| Date | Cyanide (mg/L) |
|---|---|
| 3/24/2020 | 0.002 U |
| 6/15/2020 | 0.0039 U |
| 9/22/2020 | 0.0039 U |
| 10/27/2020 | 0.00514 J |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-19**

| Date | Cyanide (mg/L) |
|---|---|
| 3/11/2020 | 0.00251 J |
| 6/30/2020 | 0.0039 U |
| 9/29/2020 | 0.00426 J |
| 10/30/2020 | 0.00422 J |
| 2/25/2025 | - |
| 5/8/2025 | 0.00671 |
| 8/7/2025 | 0.005 U |
| 11/6/2025 | - |

**SMW-03**

| Date | Cyanide (mg/L) |
|---|---|
| 3/30/2020 | 0.0105 |
| 6/16/2020 | 0.0120 |
| 9/22/2020 | 0.0118 |
| 11/5/2020 | 0.0130 |
| 2/20/2025 | 0.00667 |
| 5/7/2025 | 0.0114 |
| 8/6/2025 | 0.00264 J |
| 11/5/2025 | 0.00316 J |

**SMW-12**

| Date | Cyanide (mg/L) |
|---|---|
| 2/28/2020 | 0.1700 |
| 6/24/2020 | 0.0888 |
| 9/21/2020 | 0.0641 |
| 10/26/2020 | 0.0604 |
| 2/18/2025 | - |
| 5/6/2025 | 0.0656 |
| 8/5/2025 | 0.0610 |
| 11/5/2025 | 0.130 |

**SMW-02**

| Date | Cyanide (mg/L) |
|---|---|
| 3/29/2020 | 0.00235 J |
| 6/28/2020 | 0.00583 J |
| 9/28/2020 | 0.0039 U |
| 11/6/2020 | 0.00545 J |
| 2/20/2025 | 0.005 U |
| 5/9/2025 | 0.00278 J |
| 8/6/2025 | 0.005 U |
| 11/4/2025 | 0.005 U |

**SMW-15R**

| Date | Cyanide (mg/L) |
|---|---|
| 3/29/2020 | 0.002 U |
| 6/29/2020 | 0.00591 J |
| 9/28/2020 | 0.00432 J |
| 11/2/2020 | 0.00437 J |
| 2/25/2025 | 0.005 U |
| 5/8/2025 | 0.005 U |
| 8/7/2025 | 0.005 U |
| 11/6/2025 | 0.005 U |

**LEGEND:**

- Existing Monitoring Well
- Groundwater Flow Path

0 800
Feet

**AERIAL SOURCE:** ©2026 Microsoft Corporation ©2026 Maxar ©CNES (2026) Distribution Airbus DS ©2026 TMAP MOBILITY Earthstar Geographics SIO
**HORIZONTAL DATUM:** Washington State Plane North Zone, NAD83/91, U.S. Survey Feet
**VERTICAL DATUM:** Alcoa Intalco Plant Datum
**NOTES:**

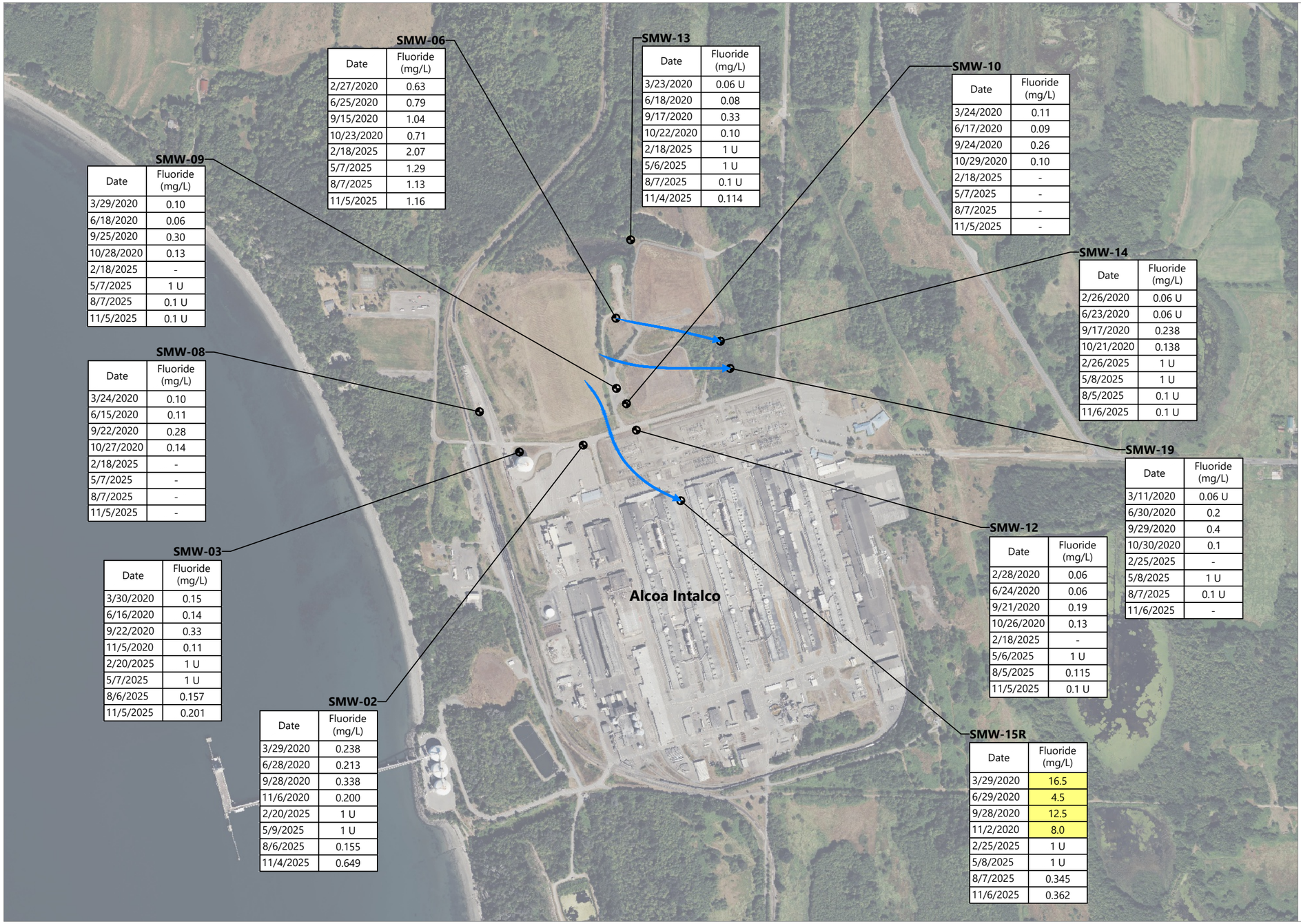
1. The screening level for total cyanide is 0.2 mg/L, the primary drinking water maximum contaminant level (WAC 246-290). Yellow highlighted results exceed the screening level.
2. mg/L: milligram per liter
3. -: Insufficient water level within well for sampling (below screen interval)
4. J: Estimated value
5. U: Compound analyzed for, but not detected above detection limit

Publish Date: 2026/03/31 12:11 PM | User: hmerrick
Filepath: K:\Projects\0002-Alcoa Inc\Alcoa-Intalco Aluminum\Post-Closure GW Monitoring\0002-RP-004 GW Mon Cyanide.dwg | Figure 3b

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**Figure 3b**
**2020 to 2025 Groundwater Monitoring Results – Total Cyanide**

Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**SMW-06**

| Date | Fluoride (mg/L) |
|---|---|
| 2/27/2020 | 0.63 |
| 6/25/2020 | 0.79 |
| 9/15/2020 | 1.04 |
| 10/23/2020 | 0.71 |
| 2/18/2025 | 2.07 |
| 5/7/2025 | 1.29 |
| 8/7/2025 | 1.13 |
| 11/5/2025 | 1.16 |

**SMW-13**

| Date | Fluoride (mg/L) |
|---|---|
| 3/23/2020 | 0.06 U |
| 6/18/2020 | 0.08 |
| 9/17/2020 | 0.33 |
| 10/22/2020 | 0.10 |
| 2/18/2025 | 1 U |
| 5/6/2025 | 1 U |
| 8/7/2025 | 0.1 U |
| 11/4/2025 | 0.114 |

**SMW-10**

| Date | Fluoride (mg/L) |
|---|---|
| 3/24/2020 | 0.11 |
| 6/17/2020 | 0.09 |
| 9/24/2020 | 0.26 |
| 10/29/2020 | 0.10 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-09**

| Date | Fluoride (mg/L) |
|---|---|
| 3/29/2020 | 0.10 |
| 6/18/2020 | 0.06 |
| 9/25/2020 | 0.30 |
| 10/28/2020 | 0.13 |
| 2/18/2025 | - |
| 5/7/2025 | 1 U |
| 8/7/2025 | 0.1 U |
| 11/5/2025 | 0.1 U |

**SMW-14**

| Date | Fluoride (mg/L) |
|---|---|
| 2/26/2020 | 0.06 U |
| 6/23/2020 | 0.06 U |
| 9/17/2020 | 0.238 |
| 10/21/2020 | 0.138 |
| 2/26/2025 | 1 U |
| 5/8/2025 | 1 U |
| 8/5/2025 | 0.1 U |
| 11/6/2025 | 0.1 U |

**SMW-08**

| Date | Fluoride (mg/L) |
|---|---|
| 3/24/2020 | 0.10 |
| 6/15/2020 | 0.11 |
| 9/22/2020 | 0.28 |
| 10/27/2020 | 0.14 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-19**

| Date | Fluoride (mg/L) |
|---|---|
| 3/11/2020 | 0.06 U |
| 6/30/2020 | 0.2 |
| 9/29/2020 | 0.4 |
| 10/30/2020 | 0.1 |
| 2/25/2025 | - |
| 5/8/2025 | 1 U |
| 8/7/2025 | 0.1 U |
| 11/6/2025 | - |

**SMW-12**

| Date | Fluoride (mg/L) |
|---|---|
| 2/28/2020 | 0.06 |
| 6/24/2020 | 0.06 |
| 9/21/2020 | 0.19 |
| 10/26/2020 | 0.13 |
| 2/18/2025 | - |
| 5/6/2025 | 1 U |
| 8/5/2025 | 0.115 |
| 11/5/2025 | 0.1 U |

**SMW-03**

| Date | Fluoride (mg/L) |
|---|---|
| 3/30/2020 | 0.15 |
| 6/16/2020 | 0.14 |
| 9/22/2020 | 0.33 |
| 11/5/2020 | 0.11 |
| 2/20/2025 | 1 U |
| 5/7/2025 | 1 U |
| 8/6/2025 | 0.157 |
| 11/5/2025 | 0.201 |

**SMW-02**

| Date | Fluoride (mg/L) |
|---|---|
| 3/29/2020 | 0.238 |
| 6/28/2020 | 0.213 |
| 9/28/2020 | 0.338 |
| 11/6/2020 | 0.200 |
| 2/20/2025 | 1 U |
| 5/9/2025 | 1 U |
| 8/6/2025 | 0.155 |
| 11/4/2025 | 0.649 |

**SMW-15R**

| Date | Fluoride (mg/L) |
|---|---|
| 3/29/2020 | 16.5 |
| 6/29/2020 | 4.5 |
| 9/28/2020 | 12.5 |
| 11/2/2020 | 8.0 |
| 2/25/2025 | 1 U |
| 5/8/2025 | 1 U |
| 8/7/2025 | 0.345 |
| 11/6/2025 | 0.362 |

**LEGEND:**

- Existing Monitoring Well
- Groundwater Flow Path

0 800
Feet

**AERIAL SOURCE:** ©2026 Microsoft Corporation ©2026 Maxar ©CNES (2026) Distribution Airbus DS ©2026 TMAP MOBILITY Earthstar Geographics SIO
**HORIZONTAL DATUM:** Washington State Plane North Zone, NAD83/91, U.S. Survey Feet
**VERTICAL DATUM:** Alcoa Intalco Plant Datum
**NOTES:**

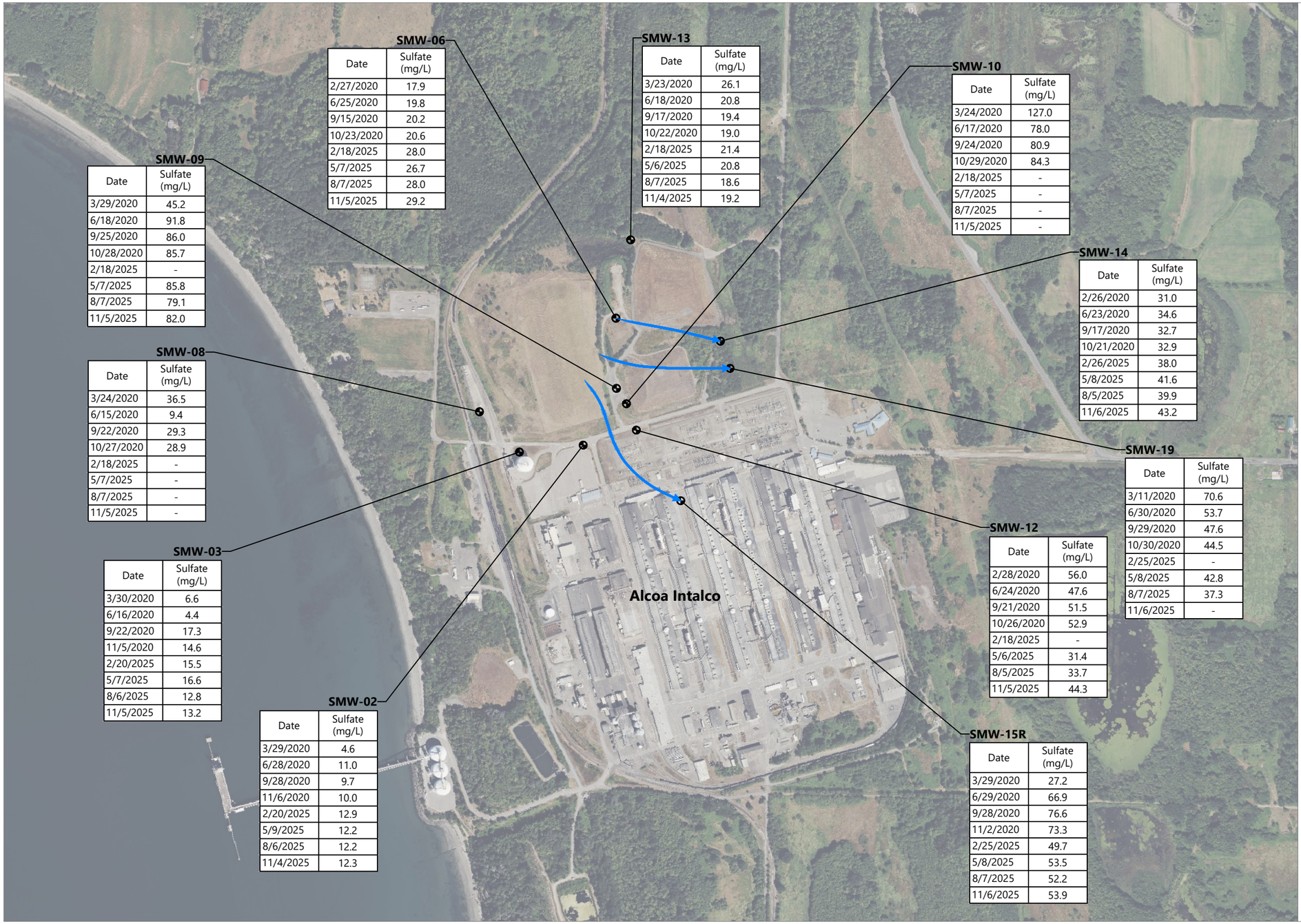
1. The screening level for total fluoride is 4 mg/L, the primary drinking water maximum contaminant level (WAC 246-290). Yellow highlighted results exceed the screening level.
2. mg/L: milligram per liter
3. -: Insufficient water level within well for sampling (below screen interval)
4. U: Compound analyzed for, but not detected above detection limit

Publish Date: 2026/03/31 12:11 PM | User: hmerrick
Filepath: K:\Projects\0002-Alcoa Inc\Alcoa-Intalco Aluminum\Post-Closure GW Monitoring\0002-RP-005 GW Mon Fluoride.dwg | Figure 3c

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**Figure 3c**
**2020 to 2025 Groundwater Monitoring Results – Total Fluoride**

Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**SMW-06**

| Date | Sulfate (mg/L) |
|---|---|
| 2/27/2020 | 17.9 |
| 6/25/2020 | 19.8 |
| 9/15/2020 | 20.2 |
| 10/23/2020 | 20.6 |
| 2/18/2025 | 28.0 |
| 5/7/2025 | 26.7 |
| 8/7/2025 | 28.0 |
| 11/5/2025 | 29.2 |

**SMW-13**

| Date | Sulfate (mg/L) |
|---|---|
| 3/23/2020 | 26.1 |
| 6/18/2020 | 20.8 |
| 9/17/2020 | 19.4 |
| 10/22/2020 | 19.0 |
| 2/18/2025 | 21.4 |
| 5/6/2025 | 20.8 |
| 8/7/2025 | 18.6 |
| 11/4/2025 | 19.2 |

**SMW-10**

| Date | Sulfate (mg/L) |
|---|---|
| 3/24/2020 | 127.0 |
| 6/17/2020 | 78.0 |
| 9/24/2020 | 80.9 |
| 10/29/2020 | 84.3 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-09**

| Date | Sulfate (mg/L) |
|---|---|
| 3/29/2020 | 45.2 |
| 6/18/2020 | 91.8 |
| 9/25/2020 | 86.0 |
| 10/28/2020 | 85.7 |
| 2/18/2025 | - |
| 5/7/2025 | 85.8 |
| 8/7/2025 | 79.1 |
| 11/5/2025 | 82.0 |

**SMW-14**

| Date | Sulfate (mg/L) |
|---|---|
| 2/26/2020 | 31.0 |
| 6/23/2020 | 34.6 |
| 9/17/2020 | 32.7 |
| 10/21/2020 | 32.9 |
| 2/26/2025 | 38.0 |
| 5/8/2025 | 41.6 |
| 8/5/2025 | 39.9 |
| 11/6/2025 | 43.2 |

**SMW-08**

| Date | Sulfate (mg/L) |
|---|---|
| 3/24/2020 | 36.5 |
| 6/15/2020 | 9.4 |
| 9/22/2020 | 29.3 |
| 10/27/2020 | 28.9 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-19**

| Date | Sulfate (mg/L) |
|---|---|
| 3/11/2020 | 70.6 |
| 6/30/2020 | 53.7 |
| 9/29/2020 | 47.6 |
| 10/30/2020 | 44.5 |
| 2/25/2025 | - |
| 5/8/2025 | 42.8 |
| 8/7/2025 | 37.3 |
| 11/6/2025 | - |

**SMW-03**

| Date | Sulfate (mg/L) |
|---|---|
| 3/30/2020 | 6.6 |
| 6/16/2020 | 4.4 |
| 9/22/2020 | 17.3 |
| 11/5/2020 | 14.6 |
| 2/20/2025 | 15.5 |
| 5/7/2025 | 16.6 |
| 8/6/2025 | 12.8 |
| 11/5/2025 | 13.2 |

**SMW-12**

| Date | Sulfate (mg/L) |
|---|---|
| 2/28/2020 | 56.0 |
| 6/24/2020 | 47.6 |
| 9/21/2020 | 51.5 |
| 10/26/2020 | 52.9 |
| 2/18/2025 | - |
| 5/6/2025 | 31.4 |
| 8/5/2025 | 33.7 |
| 11/5/2025 | 44.3 |

**SMW-02**

| Date | Sulfate (mg/L) |
|---|---|
| 3/29/2020 | 4.6 |
| 6/28/2020 | 11.0 |
| 9/28/2020 | 9.7 |
| 11/6/2020 | 10.0 |
| 2/20/2025 | 12.9 |
| 5/9/2025 | 12.2 |
| 8/6/2025 | 12.2 |
| 11/4/2025 | 12.3 |

**SMW-15R**

| Date | Sulfate (mg/L) |
|---|---|
| 3/29/2020 | 27.2 |
| 6/29/2020 | 66.9 |
| 9/28/2020 | 76.6 |
| 11/2/2020 | 73.3 |
| 2/25/2025 | 49.7 |
| 5/8/2025 | 53.5 |
| 8/7/2025 | 52.2 |
| 11/6/2025 | 53.9 |

**LEGEND:**

- Existing Monitoring Well
- Groundwater Flow Path

0 800
Feet

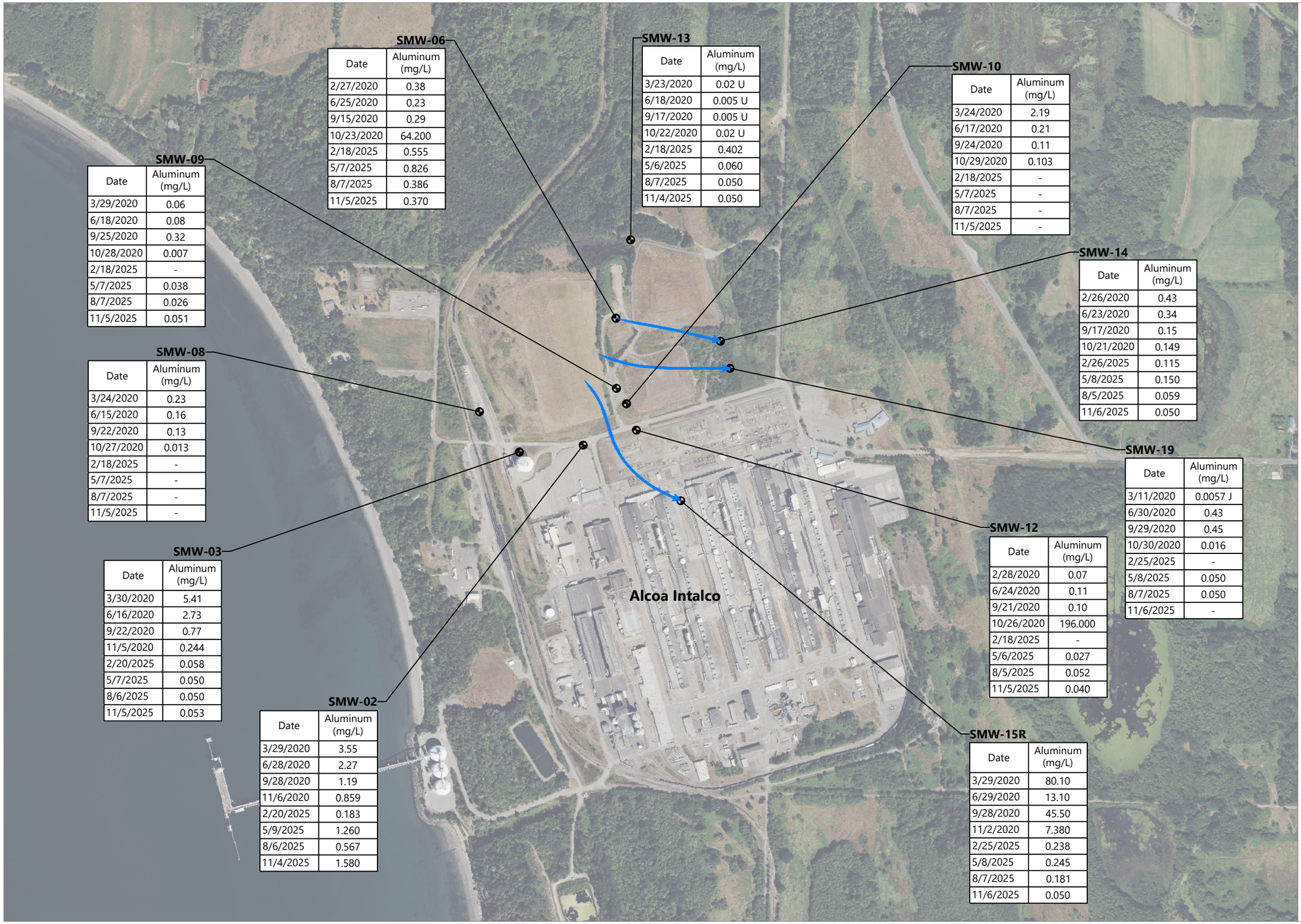
**AERIAL SOURCE:** ©2026 Microsoft Corporation ©2026 Maxar ©CNES (2026) Distribution Airbus DS ©2026 TMAP MOBILITY Earthstar Geographics SIO
**HORIZONTAL DATUM:** Washington State Plane North Zone, NAD83/91, U.S. Survey Feet
**VERTICAL DATUM:** Alcoa Intalco Plant Datum
**NOTES:**

1. The screening level for sulfate is 250 mg/L, the secondary drinking water maximum contaminant level (WAC 246-290). Yellow highlighted results exceed the screening level.
2. mg/L: milligram per liter
3. -: Insufficient water level within well for sampling (below screen interval)

Publish Date: 2026/03/31 12:11 PM | User: hmerrick
Filepath: K:\Projects\0002-Alcoa Inc\Alcoa-Intalco Aluminum\Post-Closure GW Monitoring\0002-RP-008 GW Mon Sulfate.dwg | Figure 3d

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**Figure 3d**
**2020 to 2025 Groundwater Monitoring Results – Sulfate**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**SMW-06**

| Date | Aluminum (mg/L) |
|---|---|
| 2/27/2020 | 0.38 |
| 6/25/2020 | 0.23 |
| 9/15/2020 | 0.29 |
| 10/23/2020 | 64.200 |
| 2/18/2025 | 0.555 |
| 5/7/2025 | 0.826 |
| 8/7/2025 | 0.386 |
| 11/5/2025 | 0.370 |

**SMW-13**

| Date | Aluminum (mg/L) |
|---|---|
| 3/23/2020 | 0.02 U |
| 6/18/2020 | 0.005 U |
| 9/17/2020 | 0.005 U |
| 10/22/2020 | 0.02 U |
| 2/18/2025 | 0.402 |
| 5/6/2025 | 0.060 |
| 8/7/2025 | 0.050 |
| 11/4/2025 | 0.050 |

**SMW-10**

| Date | Aluminum (mg/L) |
|---|---|
| 3/24/2020 | 2.19 |
| 6/17/2020 | 0.21 |
| 9/24/2020 | 0.11 |
| 10/29/2020 | 0.103 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-09**

| Date | Aluminum (mg/L) |
|---|---|
| 3/29/2020 | 0.06 |
| 6/18/2020 | 0.08 |
| 9/25/2020 | 0.32 |
| 10/28/2020 | 0.007 |
| 2/18/2025 | - |
| 5/7/2025 | 0.038 |
| 8/7/2025 | 0.026 |
| 11/5/2025 | 0.051 |

**SMW-14**

| Date | Aluminum (mg/L) |
|---|---|
| 2/26/2020 | 0.43 |
| 6/23/2020 | 0.34 |
| 9/17/2020 | 0.15 |
| 10/21/2020 | 0.149 |
| 2/26/2025 | 0.115 |
| 5/8/2025 | 0.150 |
| 8/5/2025 | 0.059 |
| 11/6/2025 | 0.050 |

**SMW-08**

| Date | Aluminum (mg/L) |
|---|---|
| 3/24/2020 | 0.23 |
| 6/15/2020 | 0.16 |
| 9/22/2020 | 0.13 |
| 10/27/2020 | 0.013 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-19**

| Date | Aluminum (mg/L) |
|---|---|
| 3/11/2020 | 0.0057 J |
| 6/30/2020 | 0.43 |
| 9/29/2020 | 0.45 |
| 10/30/2020 | 0.016 |
| 2/25/2025 | - |
| 5/8/2025 | 0.050 |
| 8/7/2025 | 0.050 |
| 11/6/2025 | - |

**SMW-03**

| Date | Aluminum (mg/L) |
|---|---|
| 3/30/2020 | 5.41 |
| 6/16/2020 | 2.73 |
| 9/22/2020 | 0.77 |
| 11/5/2020 | 0.244 |
| 2/20/2025 | 0.058 |
| 5/7/2025 | 0.050 |
| 8/6/2025 | 0.050 |
| 11/5/2025 | 0.053 |

**SMW-12**

| Date | Aluminum (mg/L) |
|---|---|
| 2/28/2020 | 0.07 |
| 6/24/2020 | 0.11 |
| 9/21/2020 | 0.10 |
| 10/26/2020 | 196.000 |
| 2/18/2025 | - |
| 5/6/2025 | 0.027 |
| 8/5/2025 | 0.052 |
| 11/5/2025 | 0.040 |

**SMW-02**

| Date | Aluminum (mg/L) |
|---|---|
| 3/29/2020 | 3.55 |
| 6/28/2020 | 2.27 |
| 9/28/2020 | 1.19 |
| 11/6/2020 | 0.859 |
| 2/20/2025 | 0.183 |
| 5/9/2025 | 1.260 |
| 8/6/2025 | 0.567 |
| 11/4/2025 | 1.580 |

**SMW-15R**

| Date | Aluminum (mg/L) |
|---|---|
| 3/29/2020 | 80.10 |
| 6/29/2020 | 13.10 |
| 9/28/2020 | 45.50 |
| 11/2/2020 | 7.380 |
| 2/25/2025 | 0.238 |
| 5/8/2025 | 0.245 |
| 8/7/2025 | 0.181 |
| 11/6/2025 | 0.050 |

**LEGEND:**

- Existing Monitoring Well
- Groundwater Flow Path

0 800
Feet

**AERIAL SOURCE:** ©2026 Microsoft Corporation ©2026 Maxar ©CNES (2026) Distribution Airbus DS ©2026 TMAP MOBILITY Earthstar Geographics SIO
**HORIZONTAL DATUM:** Washington State Plane North Zone, NAD83/91, U.S. Survey Feet
**VERTICAL DATUM:** Alcoa Intalco Plant Datum
**NOTES:**

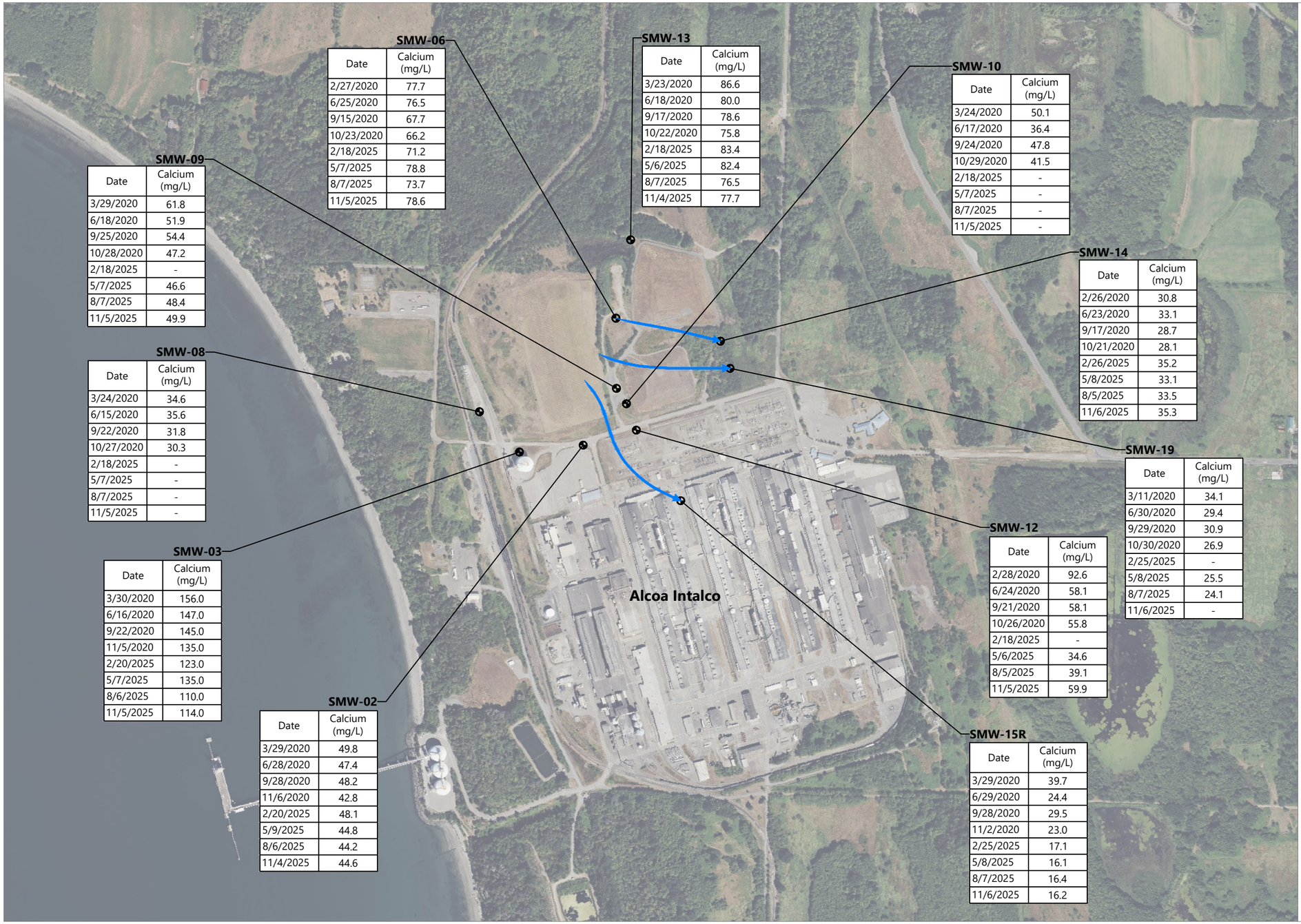
1. There is no set screening level for total aluminum.
2. mg/L: milligram per liter
3. -: Insufficient water level within well for sampling (below screen interval)
5. J: Estimated value
6. U: Compound analyzed for, but not detected above detection limit

Publish Date: 2026/03/31 12:11 PM | User: hmerrick
Filepath: K:\Projects\0002-Alcoa Inc\Alcoa-Intalco Aluminum\Post-Closure GW Monitoring\0002-RP-002 GW Mon Aluminum.dwg | Figure 3e

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**Figure 3e**
**2020 to 2025 Groundwater Monitoring Results – Total Aluminum**

Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**SMW-06**

| Date | Calcium (mg/L) |
|---|---|
| 2/27/2020 | 77.7 |
| 6/25/2020 | 76.5 |
| 9/15/2020 | 67.7 |
| 10/23/2020 | 66.2 |
| 2/18/2025 | 71.2 |
| 5/7/2025 | 78.8 |
| 8/7/2025 | 73.7 |
| 11/5/2025 | 78.6 |

**SMW-13**

| Date | Calcium (mg/L) |
|---|---|
| 3/23/2020 | 86.6 |
| 6/18/2020 | 80.0 |
| 9/17/2020 | 78.6 |
| 10/22/2020 | 75.8 |
| 2/18/2025 | 83.4 |
| 5/6/2025 | 82.4 |
| 8/7/2025 | 76.5 |
| 11/4/2025 | 77.7 |

**SMW-10**

| Date | Calcium (mg/L) |
|---|---|
| 3/24/2020 | 50.1 |
| 6/17/2020 | 36.4 |
| 9/24/2020 | 47.8 |
| 10/29/2020 | 41.5 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-09**

| Date | Calcium (mg/L) |
|---|---|
| 3/29/2020 | 61.8 |
| 6/18/2020 | 51.9 |
| 9/25/2020 | 54.4 |
| 10/28/2020 | 47.2 |
| 2/18/2025 | - |
| 5/7/2025 | 46.6 |
| 8/7/2025 | 48.4 |
| 11/5/2025 | 49.9 |

**SMW-14**

| Date | Calcium (mg/L) |
|---|---|
| 2/26/2020 | 30.8 |
| 6/23/2020 | 33.1 |
| 9/17/2020 | 28.7 |
| 10/21/2020 | 28.1 |
| 2/26/2025 | 35.2 |
| 5/8/2025 | 33.1 |
| 8/5/2025 | 33.5 |
| 11/6/2025 | 35.3 |

**SMW-08**

| Date | Calcium (mg/L) |
|---|---|
| 3/24/2020 | 34.6 |
| 6/15/2020 | 35.6 |
| 9/22/2020 | 31.8 |
| 10/27/2020 | 30.3 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-19**

| Date | Calcium (mg/L) |
|---|---|
| 3/11/2020 | 34.1 |
| 6/30/2020 | 29.4 |
| 9/29/2020 | 30.9 |
| 10/30/2020 | 26.9 |
| 2/25/2025 | - |
| 5/8/2025 | 25.5 |
| 8/7/2025 | 24.1 |
| 11/6/2025 | - |

**SMW-03**

| Date | Calcium (mg/L) |
|---|---|
| 3/30/2020 | 156.0 |
| 6/16/2020 | 147.0 |
| 9/22/2020 | 145.0 |
| 11/5/2020 | 135.0 |
| 2/20/2025 | 123.0 |
| 5/7/2025 | 135.0 |
| 8/6/2025 | 110.0 |
| 11/5/2025 | 114.0 |

**SMW-12**

| Date | Calcium (mg/L) |
|---|---|
| 2/28/2020 | 92.6 |
| 6/24/2020 | 58.1 |
| 9/21/2020 | 58.1 |
| 10/26/2020 | 55.8 |
| 2/18/2025 | - |
| 5/6/2025 | 34.6 |
| 8/5/2025 | 39.1 |
| 11/5/2025 | 59.9 |

**SMW-02**

| Date | Calcium (mg/L) |
|---|---|
| 3/29/2020 | 49.8 |
| 6/28/2020 | 47.4 |
| 9/28/2020 | 48.2 |
| 11/6/2020 | 42.8 |
| 2/20/2025 | 48.1 |
| 5/9/2025 | 44.8 |
| 8/6/2025 | 44.2 |
| 11/4/2025 | 44.6 |

**SMW-15R**

| Date | Calcium (mg/L) |
|---|---|
| 3/29/2020 | 39.7 |
| 6/29/2020 | 24.4 |
| 9/28/2020 | 29.5 |
| 11/2/2020 | 23.0 |
| 2/25/2025 | 17.1 |
| 5/8/2025 | 16.1 |
| 8/7/2025 | 16.4 |
| 11/6/2025 | 16.2 |

**LEGEND:**

- Existing Monitoring Well
- Groundwater Flow Path

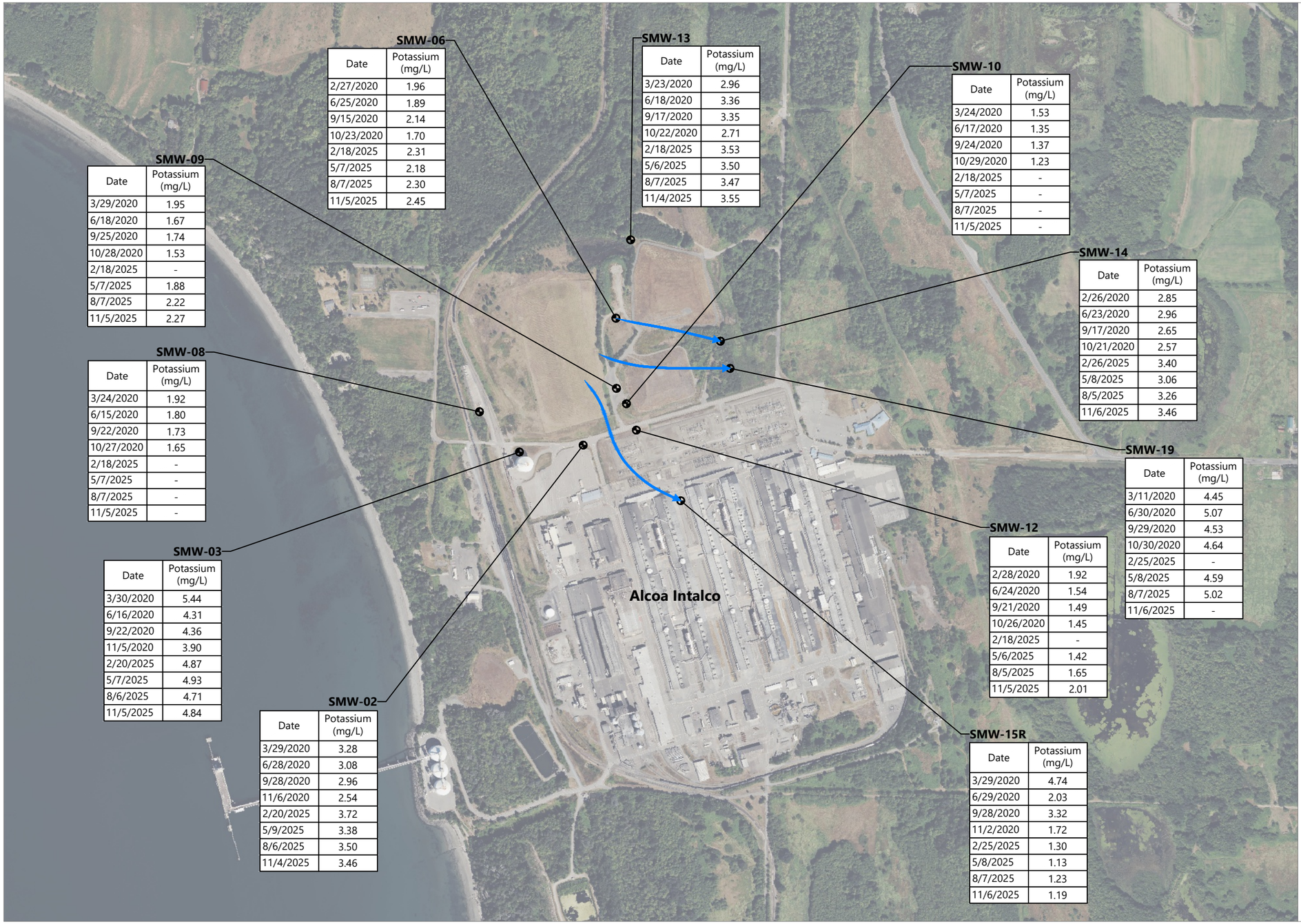
0 800
Feet

**AERIAL SOURCE:** ©2026 Microsoft Corporation ©2026 Maxar ©CNES (2026) Distribution Airbus DS ©2026 TMAP MOBILITY Earthstar Geographics SIO
**HORIZONTAL DATUM:** Washington State Plane North Zone, NAD83/91, U.S. Survey Feet
**VERTICAL DATUM:** Alcoa Intalco Plant Datum
**NOTES:**
1. There is no set screening level for calcium.
2. mg/L: milligram per liter
3. -: Insufficient water level within well for sampling (below screen interval)

Publish Date: 2026/03/31 12:11 PM | User: hmerrick
Filepath: K:\Projects\0002-Alcoa Inc\Alcoa-Intalco Aluminum\Post-Closure GW Monitoring\0002-RP-003 GW Mon Calcium.dwg | Figure 3f

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**Figure 3f**
**2020 to 2025 Groundwater Monitoring Results – Calcium**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**SMW-06**

| Date | Potassium (mg/L) |
|---|---|
| 2/27/2020 | 1.96 |
| 6/25/2020 | 1.89 |
| 9/15/2020 | 2.14 |
| 10/23/2020 | 1.70 |
| 2/18/2025 | 2.31 |
| 5/7/2025 | 2.18 |
| 8/7/2025 | 2.30 |
| 11/5/2025 | 2.45 |

**SMW-13**

| Date | Potassium (mg/L) |
|---|---|
| 3/23/2020 | 2.96 |
| 6/18/2020 | 3.36 |
| 9/17/2020 | 3.35 |
| 10/22/2020 | 2.71 |
| 2/18/2025 | 3.53 |
| 5/6/2025 | 3.50 |
| 8/7/2025 | 3.47 |
| 11/4/2025 | 3.55 |

**SMW-10**

| Date | Potassium (mg/L) |
|---|---|
| 3/24/2020 | 1.53 |
| 6/17/2020 | 1.35 |
| 9/24/2020 | 1.37 |
| 10/29/2020 | 1.23 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-09**

| Date | Potassium (mg/L) |
|---|---|
| 3/29/2020 | 1.95 |
| 6/18/2020 | 1.67 |
| 9/25/2020 | 1.74 |
| 10/28/2020 | 1.53 |
| 2/18/2025 | - |
| 5/7/2025 | 1.88 |
| 8/7/2025 | 2.22 |
| 11/5/2025 | 2.27 |

**SMW-14**

| Date | Potassium (mg/L) |
|---|---|
| 2/26/2020 | 2.85 |
| 6/23/2020 | 2.96 |
| 9/17/2020 | 2.65 |
| 10/21/2020 | 2.57 |
| 2/26/2025 | 3.40 |
| 5/8/2025 | 3.06 |
| 8/5/2025 | 3.26 |
| 11/6/2025 | 3.46 |

**SMW-08**

| Date | Potassium (mg/L) |
|---|---|
| 3/24/2020 | 1.92 |
| 6/15/2020 | 1.80 |
| 9/22/2020 | 1.73 |
| 10/27/2020 | 1.65 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-19**

| Date | Potassium (mg/L) |
|---|---|
| 3/11/2020 | 4.45 |
| 6/30/2020 | 5.07 |
| 9/29/2020 | 4.53 |
| 10/30/2020 | 4.64 |
| 2/25/2025 | - |
| 5/8/2025 | 4.59 |
| 8/7/2025 | 5.02 |
| 11/6/2025 | - |

**SMW-03**

| Date | Potassium (mg/L) |
|---|---|
| 3/30/2020 | 5.44 |
| 6/16/2020 | 4.31 |
| 9/22/2020 | 4.36 |
| 11/5/2020 | 3.90 |
| 2/20/2025 | 4.87 |
| 5/7/2025 | 4.93 |
| 8/6/2025 | 4.71 |
| 11/5/2025 | 4.84 |

**SMW-12**

| Date | Potassium (mg/L) |
|---|---|
| 2/28/2020 | 1.92 |
| 6/24/2020 | 1.54 |
| 9/21/2020 | 1.49 |
| 10/26/2020 | 1.45 |
| 2/18/2025 | - |
| 5/6/2025 | 1.42 |
| 8/5/2025 | 1.65 |
| 11/5/2025 | 2.01 |

**SMW-02**

| Date | Potassium (mg/L) |
|---|---|
| 3/29/2020 | 3.28 |
| 6/28/2020 | 3.08 |
| 9/28/2020 | 2.96 |
| 11/6/2020 | 2.54 |
| 2/20/2025 | 3.72 |
| 5/9/2025 | 3.38 |
| 8/6/2025 | 3.50 |
| 11/4/2025 | 3.46 |

**SMW-15R**

| Date | Potassium (mg/L) |
|---|---|
| 3/29/2020 | 4.74 |
| 6/29/2020 | 2.03 |
| 9/28/2020 | 3.32 |
| 11/2/2020 | 1.72 |
| 2/25/2025 | 1.30 |
| 5/8/2025 | 1.13 |
| 8/7/2025 | 1.23 |
| 11/6/2025 | 1.19 |

**LEGEND:**

- Existing Monitoring Well
- Groundwater Flow Path

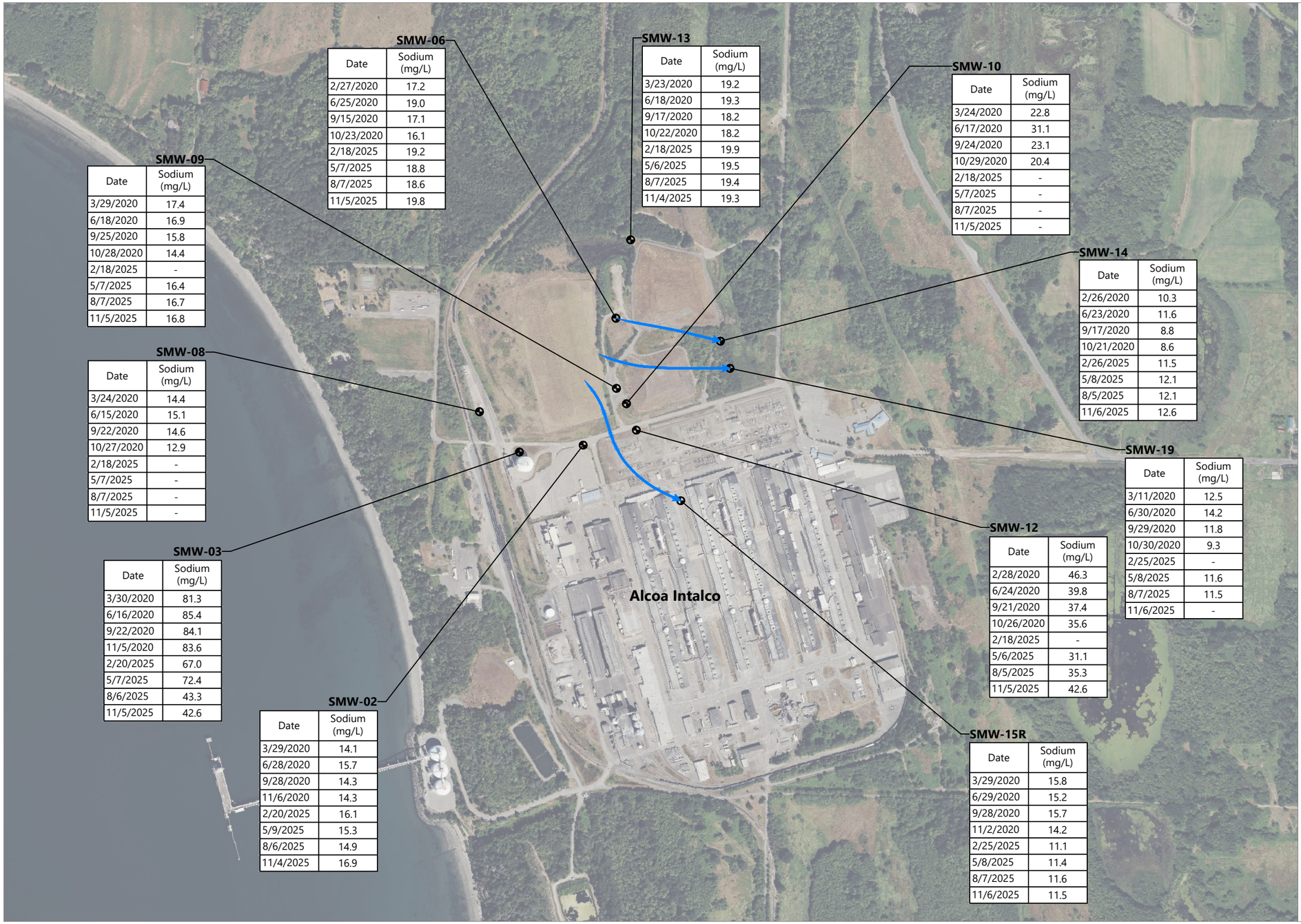
0 800
Feet

**AERIAL SOURCE:** ©2026 Microsoft Corporation ©2026 Maxar ©CNES (2026) Distribution Airbus DS ©2026 TMAP MOBILITY Earthstar Geographics SIO
**HORIZONTAL DATUM:** Washington State Plane North Zone, NAD83/91, U.S. Survey Feet
**VERTICAL DATUM:** Alcoa Intalco Plant Datum
**NOTES:**
1. There is no set screening level for potassium.
2. mg/L: milligram per liter
3. -: Insufficient water level within well for sampling (below screen interval)

Publish Date: 2026/03/31 12:11 PM | User: hmerrick
Filepath: K:\Projects\0002-Alcoa Inc\Alcoa-Intalco Aluminum\Post-Closure GW Monitoring\0002-RP-006 GW Mon Potassium.dwg | Figure 3g

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**Figure 3g**
**2020 to 2025 Groundwater Monitoring Results – Potassium**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**SMW-06**

| Date | Sodium (mg/L) |
|---|---|
| 2/27/2020 | 17.2 |
| 6/25/2020 | 19.0 |
| 9/15/2020 | 17.1 |
| 10/23/2020 | 16.1 |
| 2/18/2025 | 19.2 |
| 5/7/2025 | 18.8 |
| 8/7/2025 | 18.6 |
| 11/5/2025 | 19.8 |

**SMW-13**

| Date | Sodium (mg/L) |
|---|---|
| 3/23/2020 | 19.2 |
| 6/18/2020 | 19.3 |
| 9/17/2020 | 18.2 |
| 10/22/2020 | 18.2 |
| 2/18/2025 | 19.9 |
| 5/6/2025 | 19.5 |
| 8/7/2025 | 19.4 |
| 11/4/2025 | 19.3 |

**SMW-10**

| Date | Sodium (mg/L) |
|---|---|
| 3/24/2020 | 22.8 |
| 6/17/2020 | 31.1 |
| 9/24/2020 | 23.1 |
| 10/29/2020 | 20.4 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-09**

| Date | Sodium (mg/L) |
|---|---|
| 3/29/2020 | 17.4 |
| 6/18/2020 | 16.9 |
| 9/25/2020 | 15.8 |
| 10/28/2020 | 14.4 |
| 2/18/2025 | - |
| 5/7/2025 | 16.4 |
| 8/7/2025 | 16.7 |
| 11/5/2025 | 16.8 |

**SMW-14**

| Date | Sodium (mg/L) |
|---|---|
| 2/26/2020 | 10.3 |
| 6/23/2020 | 11.6 |
| 9/17/2020 | 8.8 |
| 10/21/2020 | 8.6 |
| 2/26/2025 | 11.5 |
| 5/8/2025 | 12.1 |
| 8/5/2025 | 12.1 |
| 11/6/2025 | 12.6 |

**SMW-08**

| Date | Sodium (mg/L) |
|---|---|
| 3/24/2020 | 14.4 |
| 6/15/2020 | 15.1 |
| 9/22/2020 | 14.6 |
| 10/27/2020 | 12.9 |
| 2/18/2025 | - |
| 5/7/2025 | - |
| 8/7/2025 | - |
| 11/5/2025 | - |

**SMW-19**

| Date | Sodium (mg/L) |
|---|---|
| 3/11/2020 | 12.5 |
| 6/30/2020 | 14.2 |
| 9/29/2020 | 11.8 |
| 10/30/2020 | 9.3 |
| 2/25/2025 | - |
| 5/8/2025 | 11.6 |
| 8/7/2025 | 11.5 |
| 11/6/2025 | - |

**SMW-03**

| Date | Sodium (mg/L) |
|---|---|
| 3/30/2020 | 81.3 |
| 6/16/2020 | 85.4 |
| 9/22/2020 | 84.1 |
| 11/5/2020 | 83.6 |
| 2/20/2025 | 67.0 |
| 5/7/2025 | 72.4 |
| 8/6/2025 | 43.3 |
| 11/5/2025 | 42.6 |

**SMW-12**

| Date | Sodium (mg/L) |
|---|---|
| 2/28/2020 | 46.3 |
| 6/24/2020 | 39.8 |
| 9/21/2020 | 37.4 |
| 10/26/2020 | 35.6 |
| 2/18/2025 | - |
| 5/6/2025 | 31.1 |
| 8/5/2025 | 35.3 |
| 11/5/2025 | 42.6 |

**SMW-02**

| Date | Sodium (mg/L) |
|---|---|
| 3/29/2020 | 14.1 |
| 6/28/2020 | 15.7 |
| 9/28/2020 | 14.3 |
| 11/6/2020 | 14.3 |
| 2/20/2025 | 16.1 |
| 5/9/2025 | 15.3 |
| 8/6/2025 | 14.9 |
| 11/4/2025 | 16.9 |

**SMW-15R**

| Date | Sodium (mg/L) |
|---|---|
| 3/29/2020 | 15.8 |
| 6/29/2020 | 15.2 |
| 9/28/2020 | 15.7 |
| 11/2/2020 | 14.2 |
| 2/25/2025 | 11.1 |
| 5/8/2025 | 11.4 |
| 8/7/2025 | 11.6 |
| 11/6/2025 | 11.5 |

**LEGEND:**

- Existing Monitoring Well
- Groundwater Flow Path

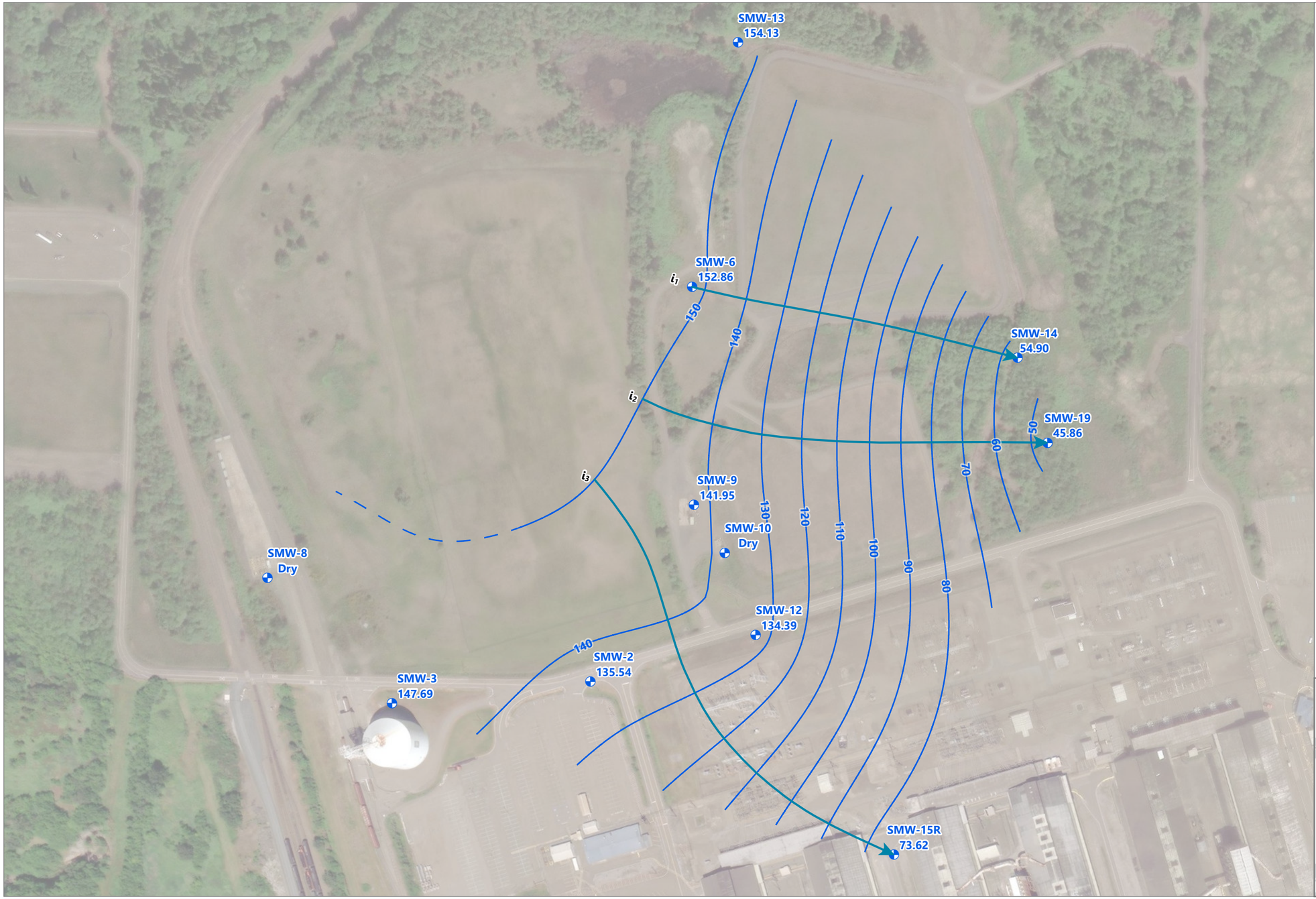
0 800
Feet

**AERIAL SOURCE:** ©2026 Microsoft Corporation ©2026 Maxar ©CNES (2026) Distribution Airbus DS ©2026 TMAP MOBILITY Earthstar Geographics SIO
**HORIZONTAL DATUM:** Washington State Plane North Zone, NAD83/91, U.S. Survey Feet
**VERTICAL DATUM:** Alcoa Intalco Plant Datum
**NOTES:**
1. There is no set screening level for sodium.
2. mg/L: milligram per liter
3. -: Insufficient water level within well for sampling (below screen interval)

Publish Date: 2026/03/31 12:11 PM | User: hmerrick
Filepath: K:\Projects\0002-Alcoa Inc\Alcoa-Intalco Aluminum\Post-Closure GW Monitoring\0002-RP-007 GW Mon Sodium.dwg | Figure 3h

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**Figure 3h**
**2020 to 2025 Groundwater Monitoring Results – Sodium**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**LEGEND:**

- Monitoring Well Location with Groundwater Elevation in Feet
- Groundwater Elevation Contour in Feet (Dashed Where Inferred)
- Groundwater Flow Path

Hydraulic Gradient
$i_1$ = 0.116
$i_2$ = 0.101
$i_3$ = 0.062

**SOURCE:**
1. Ariel Imagery: Esri (2025)

**NOTES:**
1. Hydraulic gradients were determined by calculating the groundwater elevation difference between two points of hydraulic head, and dividing by the length of the respective flow line.
2. Dry: Water level measurements recorded for SMW-8 and SMW-10 were deeper than the bottom screen elevation, indicating water trapped in the 5-ft well sump below the screened interval.
3. Groundwater elevation contours assume wells SMW-14, SMW-15R, and SMW-19 are part of the same aquifer system as the other site monitoring wells, this is consistent with historical interpretations.
4. Depth to groundwater measurements performed on February 18, 2025.
5. Horizontal Coordinate System is NAD 1983 StatePlane Washington North.
6. Vertical Datum is NAVD88.

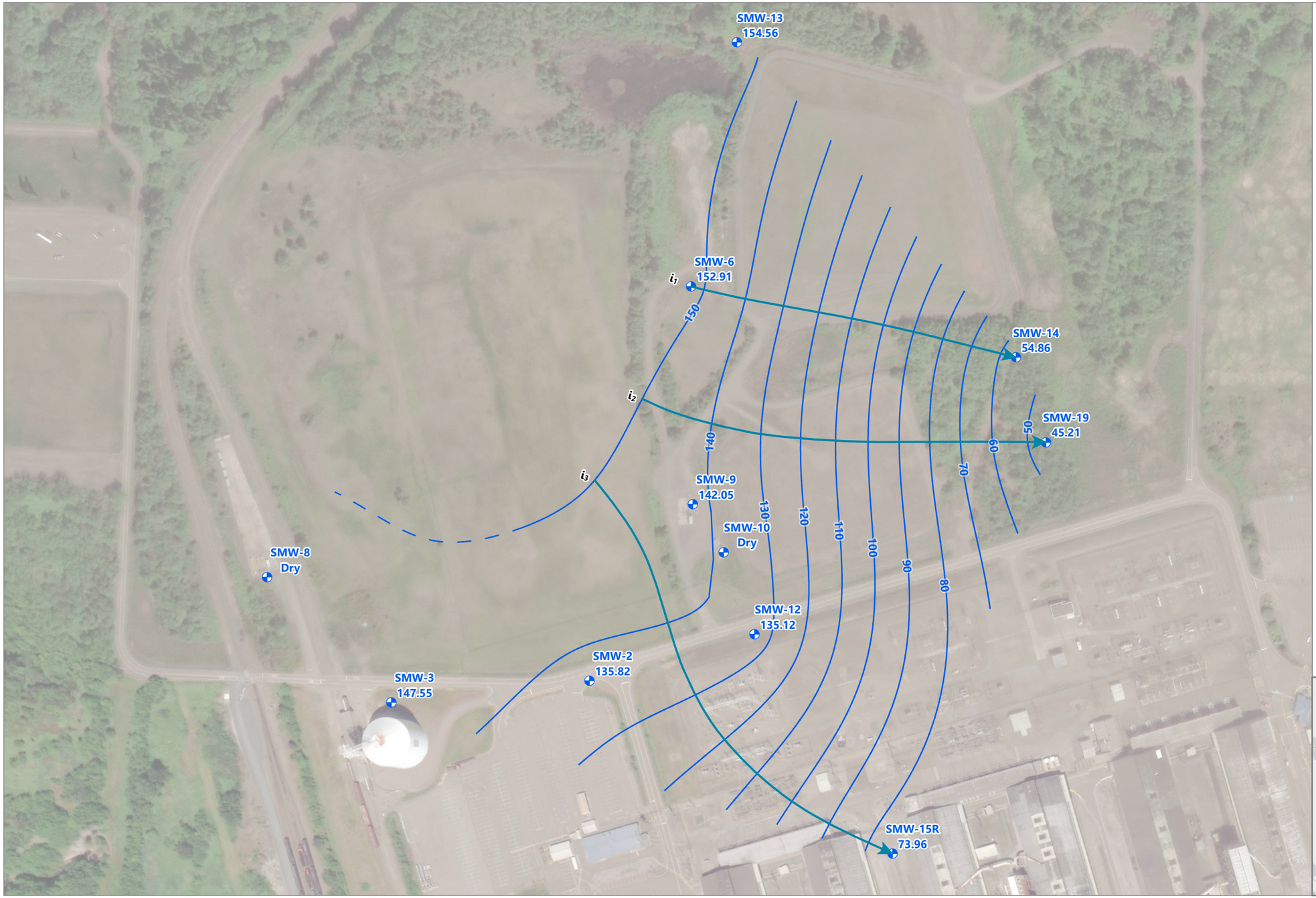
0 250
Feet




Publish Date: 2026/03/31, 1:51 PM | User: jlarson
Filepath: \\gstfile01\gis\Jobs\Alcoa_0002\Intalco\Maps\reports\2026_Groundwater_Modeling_Report\Intalco_2025_Groundwater_Modeling_Report cog.aprx | Intalco_GW_Analyses_Fig4__Groundwater_Elevation_Contour_Map_February_2025\Intalco_GW_Analyses_Fig4__Groundwater_Elevation_Contour_Map_February_2025

ANCHOR QEA

**Figure 4**
**Groundwater Elevation Contour Map – February 2025**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**LEGEND:**

- Monitoring Well Location with Groundwater Elevation in Feet
- Groundwater Elevation Contour in Feet (Dashed Where Inferred)
- Groundwater Flow Path

Hydraulic Gradient
$i_1$ = 0.116
$i_2$ = 0.102
$i_3$ = 0.061

**SOURCE:**
1. Ariel Imagery: Esri (2025)

**NOTES:**
1. Hydraulic gradients were determined by calculating the groundwater elevation difference between two points of hydraulic head, and dividing by the length of the respective flow line.
2. Dry: Water level measurements recorded for SMW-8 and SMW-10 were deeper than the bottom screen elevation, indicating water trapped in the 5-ft well sump below the screened interval.
3. Groundwater elevation contours assume wells SMW-14, SMW-15R, and SMW-19 are part of the same aquifer system as the other site monitoring wells, this is consistent with historical interpretations.
4. Depth to groundwater measurements performed on May 6, 2025.
5. Horizontal Coordinate System is NAD 1983 StatePlane Washington North.
6. Vertical Datum is NAVD88.

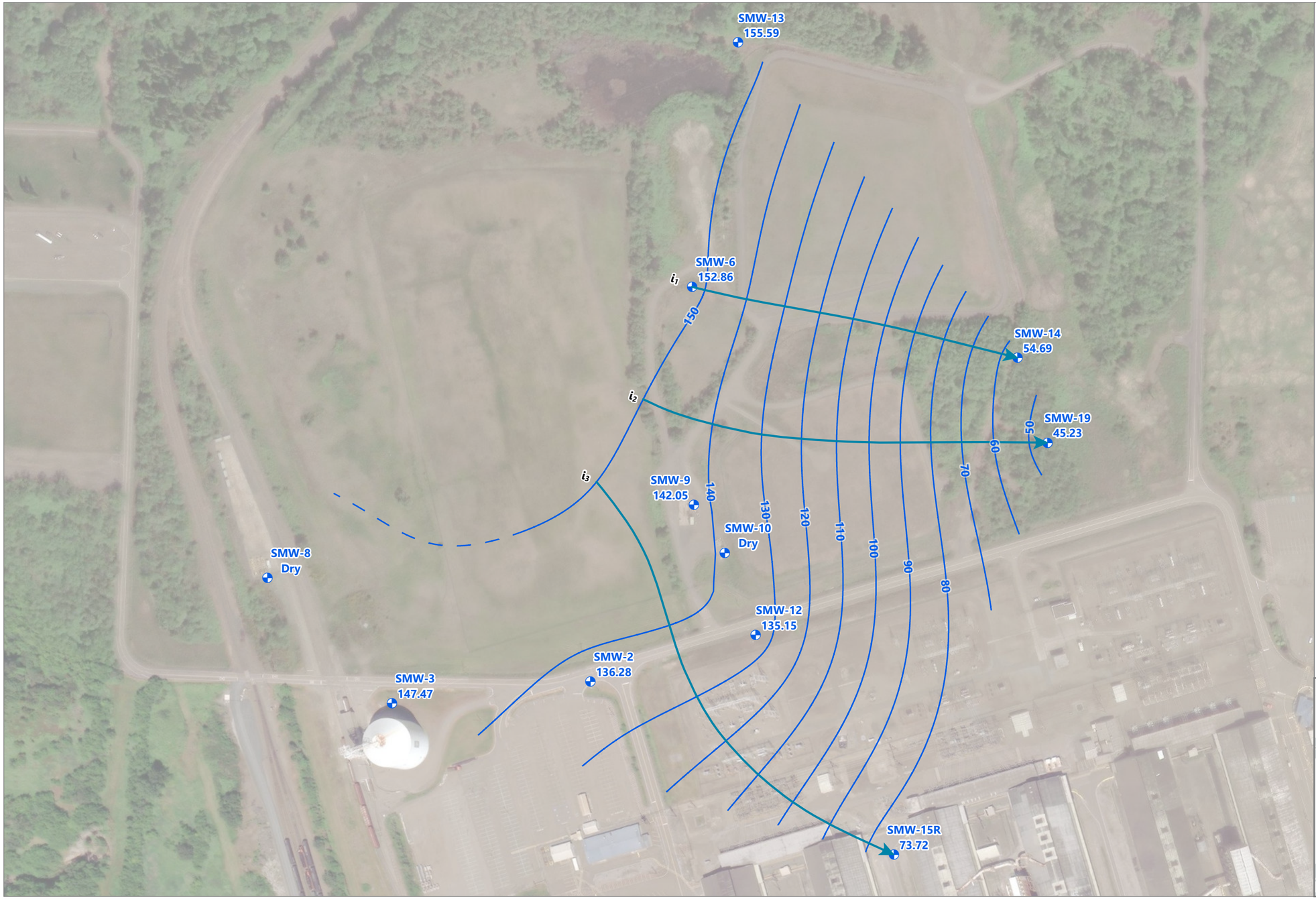
0 250
Feet




Publish Date: 2026/03/31, 1:51 PM | User: jlarson
Filepath: \\gstfile01\gis\Jobs\Alcoa_0002\Intalco\Maps\reports\2026_Groundwater_Modeling_Report\Intalco_2025_Groundwater_Modeling_Report cog.aprx | Intalco_GW_Analyses_Fig5__Groundwater_Elevation_Contour_Map_May_2025

ANCHOR QEA

**Figure 5**
**Groundwater Elevation Contour Map – May 2025**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site



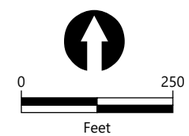

**LEGEND:**

- Monitoring Well Location with Groundwater Elevation in Feet
- Groundwater Elevation Contour in Feet (Dashed Where Inferred)
- Groundwater Flow Path

Hydraulic Gradient
$i_1$ = 0.116
$i_2$ = 0.102
$i_3$ = 0.061

**SOURCE:**
1. Ariel Imagery: Esri (2025)

**NOTES:**
1. Hydraulic gradients were determined by calculating the groundwater elevation difference between two points of hydraulic head, and dividing by the length of the respective flow line.
2. Dry: Water level measurements recorded for SMW-8 and SMW-10 were deeper than the bottom screen elevation, indicating water trapped in the 5-ft well sump below the screened interval.
3. Groundwater elevation contours assume wells SMW-14, SMW-15R, and SMW-19 are part of the same aquifer system as the other site monitoring wells, this is consistent with historical interpretations.
4. Depth to groundwater measurements performed on August 6, 2025.
5. Horizontal Coordinate System is NAD 1983 StatePlane Washington North.
6. Vertical Datum is NAVD88.



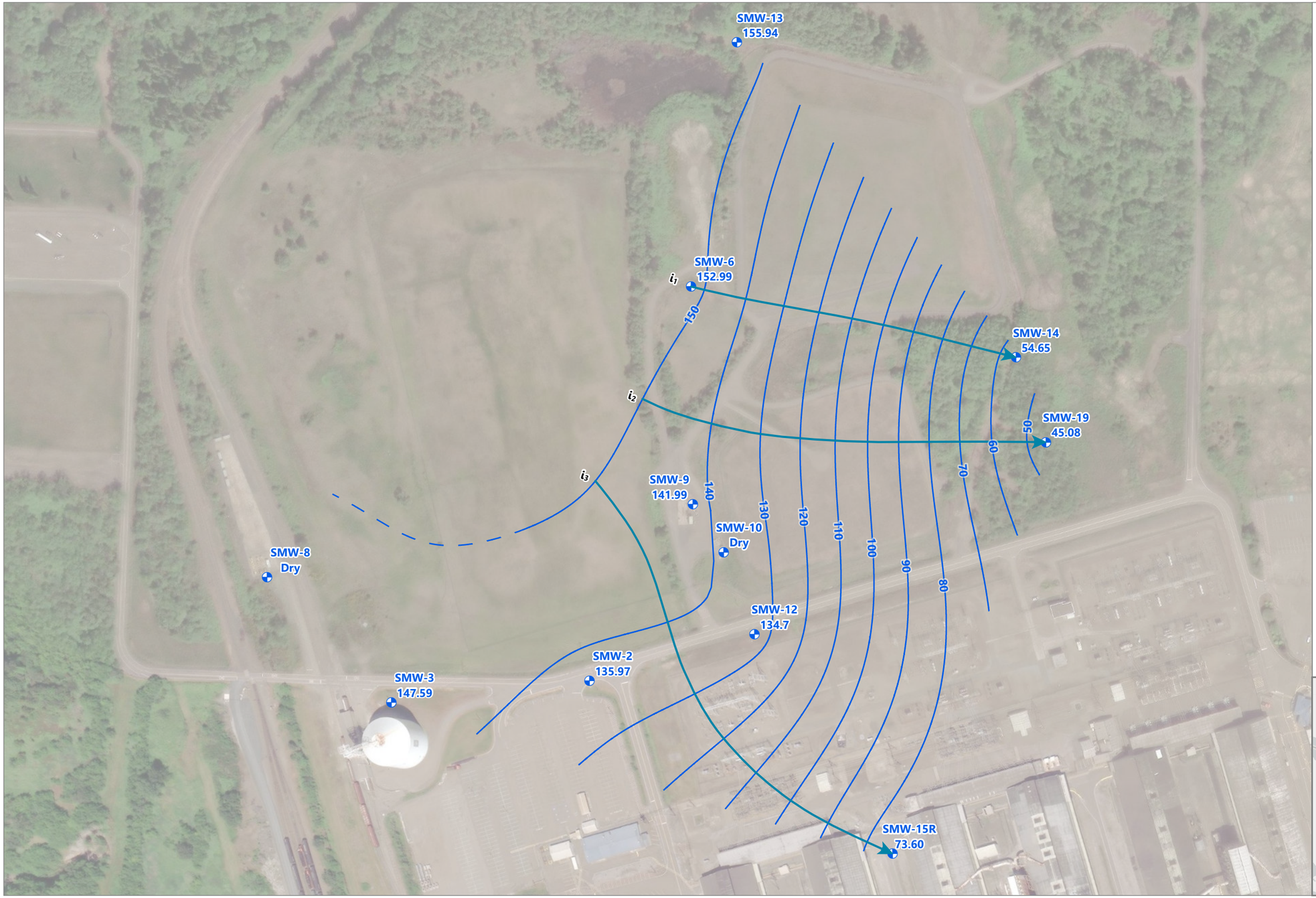




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ANCHOR QEA

**Figure 6**
**Groundwater Elevation Contour Map – August 2025**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




**LEGEND:**

- Monitoring Well Location with Groundwater Elevation in Feet
- Groundwater Elevation Contour in Feet (Dashed Where Inferred)
- Groundwater Flow Path

Hydraulic Gradient
$i_1$ = 0.116
$i_2$ = 0.102
$i_3$ = 0.062

**SOURCE:**
1. Ariel Imagery: Esri (2025)

**NOTES:**
1. Hydraulic gradients were determined by calculating the groundwater elevation difference between two points of hydraulic head, and dividing by the length of the respective flow line.
2. Dry: Water level measurements recorded for SMW-8 and SMW-10 were deeper than the bottom screen elevation, indicating water trapped in the 5-ft well sump below the screened interval.
3. Groundwater elevation contours assume wells SMW-14, SMW-15R, and SMW-19 are part of the same aquifer system as the other site monitoring wells, this is consistent with historical interpretations.
4. Depth to groundwater measurements performed on November 4, 2025.
5. Horizontal Coordinate System is NAD 1983 StatePlane Washington North.
6. Vertical Datum is NAVD88.

0 250
Feet




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Filepath: \\gstfile01\gis\Jobs\Alcoa_0002\Intalco\Maps\reports\2026_Groundwater_Modeling_Report\Intalco_2025_Groundwater_Modeling_Report cog.aprx | Intalco_GW_Analyses_Fig7__Groundwater_Elevation_Contour_Map_November_2025

ANCHOR QEA

**Figure 7**
**Groundwater Elevation Contour Map – November 2025**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site

# Appendix A
# Field Forms

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: Alcoa Intalco
Well I.D.: JMW #2
Date: 5/6/2025

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: (YES) NO
Well Completion: FLUSH MOUNT (ABOVE-GRADE STANDPIPE)
Lockable Cover: (YES) NO DAMAGED (Describe below)
Lock Present: YES ~~NO~~ JL (ADDED) Key Brand/Number: 405
Measuring Point Marked: (YES) NO ADDED
Well Riser Diameter (inches): 4
Well Riser Type: (PVC) Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: (YES) NO (Describe below)
Curb Box/Well Cover Present: (YES) NO (DAMAGED (Describe below))
All Bolts Present: YES (NO (Describe below))

**Well Condition**

Well Cap: (PVC Slip Cap) Pressure-fit Cap None
Well Vent: Slot Cut in Riser Vent Hole in Cap (None) ~~Not Applicable (Flush Mount Well)~~ MS
Reported Well Riser Stickup (feet): N/A (*use negative number if below grade*)
Measured Well Riser Stickup (feet): ~~0~~ .46 (*use negative number if below grade*)

Depth to Water (feet from Top of Well Riser): 63.30 -or- DRY 63.18' on 8/5/25 JL
Depth to LNAPL (feet from Top of Well Riser): _____ -or- (NONE) 63.49 on 11/4/25 cc
Depth to DNAPL (feet from Top of Well Riser): _____ -or- (NONE)

Reported Total Depth of Well (feet below grade): 74
Measured Total Depth of Well (feet below grade): 74.80
Well Obstructed: YES (NO) If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: (SOFT (contains sediment)) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES (NO)
Re-Survey Well: YES (NO) If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES (NO) If yes, list date performed: _____
Replace Well Cap: YES (NO) If yes, list date performed: _____
Replace Bolts: YES (NO) If yes, list date performed: _____

Other/Miscellaneous Observations:

Curb box rusted, slip cap replaced with J-plug
Ecology blocks added around perimeter 8/5/25 JL

Inspector(s): JL, JR

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: Alcoa Intalco
Well I.D.: SMW #3
Date: 5/6/2025

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: YES NO
Well Completion: FLUSH MOUNT ABOVE-GRADE STANDPIPE
Lockable Cover: YES NO DAMAGED (Describe below)
Lock Present: YES NO ADDED Key Brand/Number: 405
Measuring Point Marked: YES NO ADDED
Well Riser Diameter (inches): 4"
Well Riser Type: PVC Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: YES NO (Describe below)
Curb Box/Well Cover Present: YES NO DAMAGED (Describe below)
All Bolts Present: YES NO (Describe below) N/A

**Well Condition**

Well Cap: PVC Slip Cap Pressure-fit Cap None NEW
Well Vent: Slot Cut in Riser Vent Hole in Cap None Not Applicable (Flush Mount Well)
Reported Well Riser Stickup (feet): 6.0" *(use negative number if below grade)*
Measured Well Riser Stickup (feet): 6.0' *(use negative number if below grade)*

Depth to Water (feet from Top of Well Riser): 51.34' -or- DRY 51.37 on 8/5/25
Depth to LNAPL (feet from Top of Well Riser): _____ -or- NONE
Depth to DNAPL (feet from Top of Well Riser): _____ -or- NONE

No changes 8/5/25
51.3 on 11/4/25 JL
MS

Reported Total Depth of Well (feet below grade): 50.0'
Measured Total Depth of Well (feet below grade): 58.75'
Well Obstructed: YES NO If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: SOFT (contains sediment) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES NO
Re-Survey Well: YES NO If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES NO If yes, list date performed: _____
Replace Well Cap: YES NO If yes, list date performed: 5/6/25
Replace Bolts: YES NO If yes, list date performed: _____
Other/Miscellaneous Observations:

Inspector(s): JR, JL

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: Alcoa Intake co
Well I.D.: SMJ #6
Date: 5/6/25

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: (YES) NO
Well Completion: (FLUSH MOUNT) ABOVE-GRADE STANDPIPE
Lockable Cover: (YES) NO DAMAGED (Describe below)
Lock Present: YES (NO) (ADDED) Key Brand/Number: 405
Measuring Point Marked: (YES) NO ADDED
Well Riser Diameter (inches): 4"
Well Riser Type: (PVC) Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: YES (NO) (Describe below) N/A
Curb Box/Well Cover Present: (YES) NO DAMAGED (Describe below)
All Bolts Present: YES (NO) (Describe below) N/A

**Well Condition**

Well Cap: PVC Slip Cap (Pressure-fit Cap) None NEW
Well Vent: Slot Cut in Riser Vent Hole in Cap (None) Not Applicable (Flush Mount Well)
Reported Well Riser Stickup (feet): Flush *(use negative number if below grade)*
Measured Well Riser Stickup (feet): Flush *(use negative number if below grade)*

Depth to Water (feet from Top of Well Riser): 61.05' -or- DRY 61.00' on 8/5/25 JL
Depth to LNAPL (feet from Top of Well Riser): _____ -or- (NONE) 60.92' on 11/4/2025 MB
Depth to DNAPL (feet from Top of Well Riser): _____ -or- (NONE)

Reported Total Depth of Well (feet below grade): 68'
Measured Total Depth of Well (feet below grade): ~~72~~ 70.30'
Well Obstructed: YES (NO) If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: (SOFT (contains sediment)) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES (NO)
Re-Survey Well: YES (NO) If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES (NO) If yes, list date performed: _____
Replace Well Cap: (YES) NO If yes, list date performed: 5/6/25
Replace Bolts: YES (NO) If yes, list date performed: _____

Other/Miscellaneous Observations:
Stickup casing added 8/5/25 JL

Inspector(s): JL, JR

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: ALCOA / ANTALCO
Well I.D.: SMW #8
Date: 5/6/25

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: (YES) NO
Well Completion: FLUSH MOUNT (ABOVE-GRADE STANDPIPE)
Lockable Cover: (YES) NO DAMAGED (Describe below)
Lock Present: YES NO (ADDED) Key Brand/Number: 405
Measuring Point Marked: (YES) NO ADDED
Well Riser Diameter (inches): 4"
Well Riser Type: (PVC) Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: (YES) NO (Describe below)
Curb Box/Well Cover Present: (YES) NO DAMAGED (Describe below)
All Bolts Present: YES (NO) (Describe below) N/A

**Well Condition**

Well Cap: PVC Slip Cap (Pressure-fit Cap) None NEW
Well Vent: Slot Cut in Riser Vent Hole in Cap (None) Not Applicable (Flush Mount Well)
Reported Well Riser Stickup (feet): N/A *(use negative number if below grade)*
Measured Well Riser Stickup (feet): 6.0" *(use negative number if below grade)*

Depth to Water (feet from Top of Well Riser): 53.34' -or- DRY 53.32 on 8/5/25 JL
Depth to LNAPL (feet from Top of Well Riser): _____ -or- (NONE)
Depth to DNAPL (feet from Top of Well Riser): _____ -or- (NONE)
No changes 8/5/25
53.25 11/4/25

Reported Total Depth of Well (feet below grade): 54.0'
Measured Total Depth of Well (feet below grade): 56.1'
Well Obstructed: YES (NO) If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: (SOFT (contains sediment)) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES (NO)
Re-Survey Well: YES (NO) If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES (NO) If yes, list date performed: _____
Replace Well Cap: (YES) NO If yes, list date performed: 5/6/25
Replace Bolts: YES (NO) If yes, list date performed: _____

Other/Miscellaneous Observations:
Ecology blocks added for protection 8/5/25

Inspector(s): JL, JR

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: Alcon, Tufutto
Well I.D.: MW #9
Date: 5/6/25

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: (YES) NO
Well Completion: FLUSH MOUNT (ABOVE-GRADE STANDPIPE)
Lockable Cover: (YES) NO DAMAGED (Describe below)
Lock Present: (YES) NO (ADDED) Key Brand/Number: 405
Measuring Point Marked: (YES) NO ADDED
Well Riser Diameter (inches): 4"
Well Riser Type: (PVC) Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: (YES) NO (Describe below)
Curb Box/Well Cover Present: (YES) NO DAMAGED (Describe below)
All Bolts Present: (YES) NO (Describe below) N/A

**Well Condition**

Well Cap: PVC Slip Cap (Pressure-fit Cap) None
Well Vent: Slot Cut in Riser (Vent Hole in Cap) (None) Not Applicable (Flush Mount Well)
Reported Well Riser Stickup (feet): N/A *(use negative number if below grade)*
Measured Well Riser Stickup (feet): -7.0" *(use negative number if below grade)*

Depth to Water (feet from Top of Well Riser): 68.77 -or- DRY 68.85' on 8/5/25 JL
Depth to LNAPL (feet from Top of Well Riser): _____ -or- NONE 68.91 on 11/4/25 CW
Depth to DNAPL (feet from Top of Well Riser): _____ -or- NONE

Reported Total Depth of Well (feet below grade): ~~75'~~ JL 73'
Measured Total Depth of Well (feet below grade): 75.10
Well Obstructed: YES (NO) If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: (SOFT (contains sediment)) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES (NO)
Re-Survey Well: YES (NO) If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES (NO) If yes, list date performed: _____
Replace Well Cap: (YES) NO If yes, list date performed: 5/6/25
Replace Bolts: YES (NO) If yes, list date performed: N/A
Other/Miscellaneous Observations:

See Next Form in Well Box
New well casing (20" tall) added, new ecology blocks placed 8/5/25 JL

Inspector(s): JL, JR

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: Alcoa Intake
Well I.D.: SMW #10
Date: 5/6/25

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: (YES) NO
Well Completion: (FLUSH MOUNT) ABOVE-GRADE STANDPIPE
Lockable Cover: (YES) NO DAMAGED (Describe below)
Lock Present: YES (NO) (ADDED) Key Brand/Number: 405
Measuring Point Marked: YES (NO) (ADDED) N. Side
Well Riser Diameter (inches): 4"
Well Riser Type: (PVC) Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: (YES) NO (Describe below)
Curb Box/Well Cover Present: (YES) NO DAMAGED (Describe below)
All Bolts Present: YES NO (Describe below) N/A

**Well Condition**

Well Cap: PVC Slip Cap (Pressure-fit Cap) - NEW None
Well Vent: Slot Cut in Riser Vent Hole in Cap (None) Not Applicable (Flush Mount Well)
Reported Well Riser Stickup (feet): N/A *(use negative number if below grade)*
Measured Well Riser Stickup (feet): 5.45in 0.45ft *(use negative number if below grade)*

Depth to Water (feet from Top of Well Riser): ~~54.52~~ 69.52 TOC -or- DRY 70.43' on 8/5/25 JL
Depth to LNAPL (feet from Top of Well Riser): _____ -or- NONE 70.30 on 11/4/25 CW
Depth to DNAPL (feet from Top of Well Riser): _____ -or- NONE

Reported Total Depth of Well (feet below grade): 74'
Measured Total Depth of Well (feet below grade): 75.30
Well Obstructed: YES (NO) If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: (SOFT (contains sediment)) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES (NO)
Re-Survey Well: YES (NO) If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES (NO) If yes, list date performed: _____
Replace Well Cap: (YES) NO If yes, list date performed: 5/6/25
Replace Bolts: YES (NO) If yes, list date performed: _____
Other/Miscellaneous Observations:

Bee Nest inside well cover

SP8/25 Corrected DTW bottom, water not within screen level to sample. measured 69.94 as DTW corrected for TOC
Active bee nest inside well cover, ecology blocks added 8/5/25 JL

Inspector(s): JL JR

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: Alcoa Intalco
Well I.D.: SMW # 12
Date: 5/6/2025

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: YES (NO)
Well Completion: FLUSH MOUNT (ABOVE-GRADE STANDPIPE)
Lockable Cover: (YES) NO DAMAGED (Describe below)
Lock Present: YES ~~NO~~ JL (ADDED) Key Brand/Number: 405
Measuring Point Marked: (YES) NO ADDED
Well Riser Diameter (inches): 4"
Well Riser Type: (PVC) Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: (YES) NO (Describe below)
Curb Box/Well Cover Present: (YES) NO DAMAGED (Describe below)
All Bolts Present: YES (NO) (Describe below)

**Well Condition**

Well Cap: (PVC Slip Cap) Pressure-fit Cap None
Well Vent: Slot Cut in Riser Vent Hole in Cap (None) Not Applicable (Flush Mount Well)
Reported Well Riser Stickup (feet): N/A *(use negative number if below grade)*
Measured Well Riser Stickup (feet): 0.375 *(use negative number if below grade)* 4.50"

Depth to Water (feet from Top of Well Riser): 68.42 -or- DRY 68.40' on 8/5/25 JL
Depth to LNAPL (feet from Top of Well Riser): _____ -or- (NONE) 68.8 on 11/4/25 MB
Depth to DNAPL (feet from Top of Well Riser): _____ -or- (NONE)

Reported Total Depth of Well (feet below grade): 82
Measured Total Depth of Well (feet below grade): 85.5
Well Obstructed: YES (NO) If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: (SOFT) (contains sediment) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES ~~NO~~
Re-Survey Well: YES ~~NO~~ If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES ~~NO~~ If yes, list date performed: _____
Replace Well Cap: YES ~~NO~~ If yes, list date performed: _____
Replace Bolts: (JL) ~~YES~~ ~~NO~~ If yes, list date performed: _____

Other/Miscellaneous Observations:

Rusty curb box, slip cap replaced with J plug, combination lock secured, code 405
Ecology blocks added around well perimeter. ~~5/6/25~~ 8/5/25 JL

Inspector(s): JR, JL

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: Alcoa Intake
Well I.D.: SMW#13
Date: 5/6/2025

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: (YES) NO
Well Completion: FLUSH MOUNT (ABOVE-GRADE STANDPIPE)
Lockable Cover: (YES) NO ~~DAMAGED~~ (Describe below)
Lock Present: YES (NO) (ADDED) Key Brand/Number: 405
Measuring Point Marked: (YES) NO ADDED
Well Riser Diameter (inches): 4
Well Riser Type: (PVC) Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: (YES) NO (Describe below)
Curb Box/Well Cover Present: (YES) NO DAMAGED (Describe below)
All Bolts Present: YES (NO (Describe below))

**Well Condition**

Well Cap: (PVC Slip Cap) Pressure-fit Cap None
Well Vent: Slot Cut in Riser Vent Hole in Cap (None) Not Applicable (Flush Mount Well)
Reported Well Riser Stickup (feet): N/A *(use negative number if below grade)*
Measured Well Riser Stickup (feet): 0.51 *(use negative number if below grade)* 6.12"

Depth to Water (feet from Top of Well Riser): 61.28 -or- DRY 60.50' on 8/5/25 JL
Depth to LNAPL (feet from Top of Well Riser): _____ -or- (NONE) 59.90 on 11/8/25 CW
Depth to DNAPL (feet from Top of Well Riser): _____ -or- (NONE)

Reported Total Depth of Well (feet below grade): 81
Measured Total Depth of Well (feet below grade): 82.45
Well Obstructed: YES (NO) If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: (SOFT (contains sediment)) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES (NO)
Re-Survey Well: YES (NO) If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES (NO) If yes, list date performed: _____
Replace Well Cap: (YES) NO If yes, list date performed: 5/6/25
Replace Bolts: YES (NO) If yes, list date performed: _____

Other/Miscellaneous Observations:

Curb box hinges broken, J-plug added
Ecology blocks added around perimeter. Wasp nest under box. 8/5/25 JL

Inspector(s): JL, JR

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: Alcoa Fintube
Well I.D.: SMW #14
Date: 5/6/25

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: (YES) NO
Well Completion: FLUSH MOUNT (ABOVE-GRADE STANDPIPE)
Lockable Cover: (YES) NO DAMAGED (Describe below)
Lock Present: YES (NO) JL (ADDED) Key Brand/Number: 405
Measuring Point Marked: (YES) NO ADDED
Well Riser Diameter (inches): 4"
Well Riser Type: (PVC) Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: (YES) NO (Describe below)
Curb Box/Well Cover Present: (YES) NO DAMAGED (Describe below)
All Bolts Present: (YES) NO (Describe below) N/A

**Well Condition**

Well Cap: PVC Slip Cap (Pressure-fit Cap) None NEW
Well Vent: Slot Cut in Riser Vent Hole in Cap None Not Applicable (Flush Mount Well)
Reported Well Riser Stickup (feet): N/A *(use negative number if below grade)*
Measured Well Riser Stickup (feet): 5.25" *(use negative number if below grade)*

Depth to Water (feet from Top of Well Riser): 165.98' -or- DRY 166.22' on 8/5/25 JL
Depth to LNAPL (feet from Top of Well Riser): _____ -or- (NONE) 166.30 on 11/4/25 MB
Depth to DNAPL (feet from Top of Well Riser): _____ -or- (NONE)

Reported Total Depth of Well (feet below grade): 175.00
Measured Total Depth of Well (feet below grade): 175.90'
Well Obstructed: YES (NO) If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: (SOFT (contains sediment)) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES (NO)
Re-Survey Well: YES (NO) If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES (NO) If yes, list date performed: _____
Replace Well Cap: (YES) NO If yes, list date performed: 5/6/25
Replace Bolts: YES (NO) If yes, list date performed: _____

Other/Miscellaneous Observations:
Ecology blocks added around well perimeter 8/5/25 JL

Inspector(s): JR & JL

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: Alcoa Intalco, Ferndale
Well I.D.: SMW # 15R
Date: 5/6/2025

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: (YES) NO
Well Completion: FLUSH MOUNT (ABOVE-GRADE STANDPIPE)
Lockable Cover: (YES) NO DAMAGED (Describe below)
Lock Present: YES ~~NO~~ JL 8/5/25 (ADDED) Key Brand/Number: 405
Measuring Point Marked: (YES) NO ~~ADDED~~
Well Riser Diameter (inches): 2"
Well Riser Type: (PVC) Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: (YES) NO (Describe below)
Curb Box/Well Cover Present: YES (NO) DAMAGED (Describe below)
All Bolts Present: YES (NO (Describe below) N/A

**Well Condition**

Well Cap: PVC Slip Cap (Pressure-fit Cap) None
Well Vent: Slot Cut in Riser (Vent Hole in Cap) None Not Applicable (Flush Mount Well)
Reported Well Riser Stickup (feet): N/A (*use negative number if below grade*) 31.25"
Measured Well Riser Stickup (feet): 2.60 (*use negative number if below grade*)

Depth to Water (feet from Top of Well Riser): 124.11 -or- DRY 124.34 on 8/5/25
Depth to LNAPL (feet from Top of Well Riser): _____ -or- (NONE)
Depth to DNAPL (feet from Top of Well Riser): _____ -or- (NONE)
No change 8/5/25 JL

Reported Total Depth of Well (feet below grade): 130'
Measured Total Depth of Well (feet below grade): 130'
DTW 124.54 11/4/25 mvs
Well Obstructed: YES (NO) If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: (SOFT) (contains sediment) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES (NO)
Re-Survey Well: YES (NO) If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES (NO) If yes, list date performed: _____
Replace Well Cap: YES (NO) If yes, list date performed: _____
Replace Bolts: YES (NO) If yes, list date performed: _____
Other/Miscellaneous Observations:
Replace J-plug lock w/ combo lock. Combo H 405

Inspector(s): JL, JR

# MONITORING WELL INTEGRITY ASSESSMENT

Site Name: Alcoa Intalco
Well I.D.: SMW#19
Date: 5/6/2025

*(For each item, circle the appropriate response or fill in the blank)*

Well I.D. Clearly Marked: YES (NO)
Well Completion: FLUSH MOUNT (ABOVE-GRADE STANDPIPE)
Lockable Cover: (YES) NO DAMAGED (Describe below)
Lock Present: YES ~~NO~~ JL ADDED Key Brand/Number: 405
Measuring Point Marked: YES NO ADDED
Well Riser Diameter (inches): 4
Well Riser Type: (PVC) Stainless Steel Other (Describe) _____

**Surface Condition**

Cement Intact: (YES) NO (Describe below)
Curb Box/Well Cover Present: YES (NO) DAMAGED (Describe below)
All Bolts Present: (YES) NO (Describe below)

**Well Condition**

Well Cap: PVC Slip Cap Pressure-fit Cap (None) J-plug added
Well Vent: Slot Cut in Riser Vent Hole in Cap (None) Not Applicable (Flush Mount Well)
Reported Well Riser Stickup (feet): _____ *(use negative number if below grade)*
Measured Well Riser Stickup (feet): 1.975 *(use negative number if below grade)* 23.70"

Depth to Water (feet from Top of Well Riser): 171.74 -or- DRY 172.30' on 8/5/25 JL
Depth to LNAPL (feet from Top of Well Riser): _____ -or- NONE
Depth to DNAPL (feet from Top of Well Riser): _____ -or- NONE 172.43 on 11/4/25 MP

Reported Total Depth of Well (feet below grade): 178
Measured Total Depth of Well (feet below grade): 186.40
Well Obstructed: YES (NO) If yes, list depth in feet from Top of Well Riser: _____
Well Bottom: (SOFT) (contains sediment) FIRM (no sediment)

**Recommendations**

Repair Concrete/Surface Completion: YES (NO)
Re-Survey Well: YES (NO) If yes, list date performed: _____
Remove Sediment and Re-Measure Depth: YES (NO) If yes, list date performed: _____
Replace Well Cap: (YES) NO If yes, list date performed: 5/6/25
Replace Bolts: YES (NO) If yes, list date performed: _____

Other/Miscellaneous Observations:
J-plug added, No changes 8/5/25 JL

Inspector(s): JL, JR

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ANCHOR QEA

## Low-Flow Sampling Log

**Well ID:** SMW #2

Project Name: Alcoa Intalco
Project Number: 230002-05.06
Project Location: 4050 Mountainview Rd Ferndale WA
Sample Collector(s): JL, JR
Well Diameter: 4 in
Screen Interval: 61-74 ft bgs
Well Depth (as constructed): 74 ft bgs
Depth to Water: 63.88 ft
Measuring Point: 69 ft
Depth of Pump Intake: 70 ft
Pump Used (circle): Peristaltic (Bladder) Other (describe):
Comments: Pump water line fills with air

Date: 2/20/2025
Weather: 42°F cloudy
Facility ID or Permit # (if applicable):
Sample ID (on COC): SMW#2-20250220
Arrive at Well: 09:00
Start Time: 09:45
Sample Time: 10:27
Leave Well: 11:00
Well Type: (Stick Up) □Flush Mount
Tagged Bottom: 75.35 ft at (time):
Purge Rate: —
Total Volume Purged: 1 gal
Pump Speed: —

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 09:45 | 63.88 | 11.3 | 12.19 | 569 | 8.02 | 162.8 | 35.25 |
| 09:48 | | 11.2 | 12.34 | 569 | 8.09 | 158.3 | 25.60 |
| 09:51 | | 11.1 | 12.34 | 567 | 8.12 | 156.6 | 18.56 |
| 09:54 | | 11.0 | 12.43 | 569 | 8.13 | 154.9 | 23.57 |
| 09:57 | | 10.9 | 12.35 | 568 | 8.15 | 153.9 | 13.83 |
| 10:00 | | 10.9 | 12.41 | 568 | 8.13 | 154.3 | 10.35 |
| 10:03 | | 10.9 | 12.59 | 566 | 8.11 | 153.6 | 10.86 |
| 10:06 | | 10.8 | 12.71 | 566 | 8.11 | 153.3 | 17.56 |
| 10:09 | | 10.9 | 12.72 | 566 | 8.13 | 153.1 | 19.84 |
| 10:~~12~~12 | | 10.9 | 12.51 | 565 | 8.13 | 152.9 | 16.23 |
| 10:15 | | 10.9 | 12.60 | ~~563~~ 565 | 8.14 | 152.6 | 8.02 |
| 10:18 | | 10.8 | 12.45 | 542 | 8.15 | 151.0 | 8.51 |
| 10:21 | | 10.7 | 12.79 | 562 | 8.12 | 150.1 | 17.16 |
| 10:24 | | 10.6 | 12.71 | 548 | 8.13 | 150.0 | 18.05 |
| 10:27 | | 10.8 | 12.88 | ~~54~~561 | 8.12 | 149.9 | 8.67 |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** JL, JR **Date:** 2/20/

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW#3

Project Name: Hilco Intake
Project Number: 23002-05.06
Project Location: 4050 Mountain View Rd Tenndale, WA
Sample Collector(s): JL, JR
Facility ID or Permit # (if applicable): SMW#3-20250220
Sample ID (on COC): SMW#3-20250220

Well Diameter: 4" in
Screen Interval: 54-39 ft bgs
Well Depth (as constructed): 58. ft bgs
Depth to Water: 51.2 ft
Measuring Point: —
Depth of Pump Intake: 57 ft

Date: 2/20/2025
Weather: 45°F cloudy
Arrive at Well: 11:05
Start Time: 11:12
Sample Time: 11:56
Leave Well: 12:35
Well Type: (Stick Up) □Flush Mount
Tagged Bottom: 62.02 ft at (time): 11:00

Pump Used (circle): Peristaltic (Bladder) Other (describe):
Comments:

Purge Rate: —
Total Volume Purged: ~~2~~ 1-1.
Pump Speed: —

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU |
|---|---|---|---|---|---|---|---|
| 11:12 | 51.2 | 9.0 | 11.66 | 2009 | 7.74 | 177.1 | 104.72 |
| 11:15 | | 9.1 | 12.50 | 2097 | 7.83 | 173.8 | 53.30 |
| 11:18 | | 9.3 | 12.62 | 2099 | 7.81 | 173.8 | 39.42 |
| 11:21 | | 9.4 | 12.60 | 2093 | 7.85 | 135.5 | 27.50 |
| 11:26 | | 9.5 | 12.66 | 2069 | 7.86 | 143.7 | 22.22 |
| 1129 | | 9.5 | 12.69 | 2041 | 7.88 | 147.7 | 19.82 |
| 1132 | | 9.6 | 12.71 | 1137 | 7.91 | 150.6 | 37.20 |
| 1135 | | 9.6 | 12.80 | 1945 | 7.91 | 152.1 | 11.44 |
| 1138 | | 9.6 | 12.74 | 1900 | 7.92 | 153.2 | 8.08 |
| 1141 | | 9.6 | 12.97 | 1835 | 7.93 | 154.0 | 5.61 |
| 1144 | | 9.6 | 13.10 | 1674 | 7.95 | 154.7 | 200.0 |
| 1147 | | 9.7 | 12.95 | 1715 | 7.95 | 154.4 | 5.92 |
| ~~1200~~ 1150 | | 9.7 | 12.93 | 1688 | 7.97 | ~~159.0~~ 154.9 | 7.89 |
| 1153 | | 9.7 | 13.01 | 1642 | 7.97 | 154.7 | 3.97 |
| 1156 | | 9.6 | 13.09 | 1605 | 7.98 | 154.9 | 4.04 |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Mirayh Bowers **Date:** 2/2012

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW #6

Project Name: Alcoa Intalco 2025 Groundwater Mon. Waste Area Closure
Project Number: 230002-05.06
Project Location: 4050 Mountainview Rd Ferndale WA
Sample Collector(s): JL, MB, JR
Well Diameter: 4" in
Screen Interval: 53-68 ft bgs
Well Depth ~~(as constructed)~~: ~~73.9~~ 68 ft bgs
Depth to Water: 61.05 ft
Measuring Point: B
Depth of Pump Intake: 67 (half water col) ft
Pump Used (circle): Peristaltic (Bladder) Other (describe):
Comments:

Date: 2/18/2025
Weather: Cloudy
Facility ID or Permit # (if applicable):
Sample ID (on COC): SMW#6-20250218 ~~JL~~ JR
Arrive at Well: 12:35
Start Time: 12:50
Sample Time: 13:35
Leave Well: 13:50
Well Type: ☐Stick Up ☐Flush Mount
Tagged Bottom: 73.9 ft at (time):
Purge Rate:
Total Volume Purged: 2 gal
Pump Speed:

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 1250 | | 9.1 | 12.50 | 672 | 7.54 | 140.7 | 85.01 |
| 1253 | | 9.5 | 10.45 | 672 | 7.38 | 143.4 | 83.05 |
| 1256 | | 9.5 | 7.04 | 673 | 7.34 | 144.6 | 78.90 |
| 1259 | | 9.6 | 6.34 | 673 | 7.34 | 144.8 | 75.02 |
| 1302 | | 9.8 | 4.17 | 673 | 7.34 | 144.9 | 65.02 |
| 1305 | | 9.10 | 6.16 | 673 | 7.34 | 147. | 57.09 |
| 1308 | | 9.9 | 6.25 | 672 | 7.34 | 148.4 | 55.06 |
| ~~1307~~ 1310 | | 9.9 | 6.26 | 672 | 7.34 | 149.3 | 50.05 |
| ~~1311~~ 1314 | | 9.9 | 6.55 | 670 | 7.34 | 150.9 | 44.21 |
| ~~1317~~ 1317 | | 10 | 6.99 | 666 | 7.35 | 152.3 | 41.11 |
| ~~1320~~ 1320 | | 10.0 | 7.16 | 664 | 7.36 | 153 | 39.50 |
| 1323 | | 9.9 | 7.54 | 663 | 7.37 | 154.6 | 36.80 |
| 1326 | | 9.9 | 7.70 | 661 | 7.37 | 155.1 | 35.91 |
| 1329 | | 10.0 | 8.15 | 661 | 7.38 | 156.9 | 35.42 |
| 1332 | | 9.9 | 8.25 | 661 | 7.38 | 157.7 | 33.92 |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Joey Lane **Date:** 2/18/2025

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW #8

Project Name: Alcoa Intalco
Project Number: 23002-05.06
Project Location: 450 Mountain View Rd
Facility ID or Permit # (if applicable): —
Sample Collector(s): MB, JR
Sample ID (on COC): SMW #8-20250220
Well Diameter: 4in — in
Arrive at Well: 12:50
Screen Interval: 49-34 — ft bgs
Start Time: 1301
Well Depth (as constructed): ~~57.7~~ 54.0 — ft bgs
Sample Time: 1343
Depth to Water: 53.40 — ft
Leave Well: 1418
Measuring Point: ~~TOC~~ MP3
Well Type: ~~X~~ Stick Up ☐Flush Mount
Depth of Pump Intake: 55 — ft
Tagged Bottom: 57.7 ft at (time): 12:50
Pump Used (circle): Peristaltic (Bladder) Other (describe):
Purge Rate: —
Comments:
Total Volume Purged: 2g
Pump Speed: —

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU |
|---|---|---|---|---|---|---|---|
| 1301 | | 9.9 | 11.84 | 439.6 | 8.02 | 102.6 | 230.2 |
| 1304 | | 10.2 | 12.57 | 426.6 | 7.99 | 103.7 | 58.40 |
| 1307 | | 10.5 | 12.57 | 426.8 | 7.88 | 112.1 | 28.06 |
| 1310 | | 10.5 | 11.99 | 424.6 | 7.92 | 119.1 | 26.0 |
| 1313 | | 10.5 | 11.97 | 423.8 | 7.93 | 123.2 | 80.66 |
| 1316 | | 10.5 | 12.10 | 422.6 | 7.94 | 126.5 | 51.91 |
| 1319 | | 10.5 | 12.04 | 427.2 | 7.94 | 129.4 | 84.66 |
| 1322 | | 10.5 | 12.04 | 420.1 | 7.93 | 131.9 | 14.96 |
| 1325 | | 10.4 | 12.01 | 418.0 | 7.94 | 133.4 | 22.87 |
| 1328 | | 10.4 | 12.04 | 416.2 | 7.95 | 135 | 7.71 |
| 1331 | | 10.4 | 12.05 | 416.3 | 7.97 | 136.2 | 48.9 |
| 1334 | | 10.3 | 12.27 | 410.4 | 7.96 | 138.6 | 6.93 |
| 1337 | | 10.3 | 12.28 | 409.3 | 7.96 | 139.7 | 43.56 |
| 1340 | | 10.3 | 12.20 | 411.4 | 7.97 | 140.3 | 10.62 |
| 1343 | | 10.3 | 12.18 | 410.1 | 7.96 | 142.2 | 9.04 |

**Sample Analyst Signature:** MRe/ 1/2 **Sample Analyst Name:** Mikayla Bowles **Date:** 2/20/25

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW#9

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Intalco | Date: | 2/21/25 |
| Project Number: | 23002-50 | Weather: | Cloudy, Rainy |
| Project Location: | 4050 Mantnview Rd | Facility ID or Permit # (if applicable): | — |
| Sample Collector(s): | MB, JL | Sample ID (on COC): | SMW#9-20250221 |
| Well Diameter: | 4in | Arrive at Well: | 12:35 |
| Screen Interval: | 68-58 ft bgs | Start Time: | 1250 |
| Well Depth (as constructed): | 78.7, 77.95 ft bgs | Sample Time: | 1354 |
| Depth to Water: | 68.95 ft | Leave Well: | ~~1300~~ 1419 |
| Measuring Point: | N. | Well Type: | ☐Stick Up ☐Flush Mount |
| Depth of Pump Intake: | 71 ft | Tagged Bottom: | ~~78.7~~ ft at (time): 13:00 |
| Pump Used (circle): | Peristaltic (Bladder) | Other (describe): | Purge Rate: — |
| Comments: | Well near ~~#8~~ 10 which had the ammonia, this well smells similar in odor | | Total Volume Purged: 2 gal<br>Pump Speed: — |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU |
|---|---|---|---|---|---|---|---|
| ~~1255~~ 1304 | | 9.7 | 11.20 | 545 | 7.06 | -139.7 | 19.68 |
| 1307 | | 9.6 | 11.30 | 549 | 7.08 | -136.5 | 19.65 |
| 1310 | | 10.3 | 9.98 | 639 | 6.84 | -147.1 | 27.60 |
| 1313 | | 10.3 | 10.19 | 678 | 6.82 | -152.7 | 50.40 |
| 1316 | | 10.3 | 10.45 | 637 | 6.32 | -140.4 | 53.76 |
| 1319 | | 10.3 | 10.43 | 683 | 6.82 | -161.7 | 29.19 |
| 1321 | | 10.3 | 10.53 | 664 | 6.83 | -164.5 | 38.58 |
| 1324 | | 10.3 | 10.64 | 654 | 6.84 | -166.4 | 29.11 |
| 1327 | | 10.3 | 10.98 | 610 | 6.90 | -168.5 | 20.06 |
| 1330 | | 10.4 | 11.33 | 587 | 6.91 | -165.3 | 29.52 |
| 1333 | | 10.4 | 10.62 | 574 | 6.92 | -164.0 | 39.80 |
| 1336 | | 10.4 | 10.42 | 569 | 6.93 | -162 | 46.92 |
| 1339 | | 10.4 | 10.97 | 561 | 6.94 | -158.9 | 15.09 |
| 1341 | | 10.4 | 11.14 | 556 | 6.96 | -156.2 | 15.12 |
| 1344 | | 10.3 | 11.12 | ~~1056~~ 554 | 6.97 | -155.6 | 11.62 |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Mikayla Bowers **Date:** 2/21/25

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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Asheville, North Carolina 288

## Low-Flow Sampling Log

**Well ID:** SMW #12

Project Name: Alcoa Intalco 2025 GW monitoring
Project Number: 230002-05.06
Project Location: 4050 Mountainview Rd Ferndale WA
Facility ID or Permit # (if applicable):
Sample Collector(s): JL, MB, JR
Sample ID (on COC): SMW#12-20250218
Well Diameter: 4 in
Arrive at Well: 14:10
Screen Interval: 66-76 ft bgs
Start Time: 14:22
Well Depth (~~as constructed~~): 86.20 (measured) ft bgs 82 ft rept.
Sample Time: 14:49
Depth to Water: 69.11 ft
Leave Well: 15:20
Measuring Point: ~~TOC~~ JL
Well Type: (Stick Up) □Flush Mount
Depth of Pump Intake: 77' (half water col) ft
Tagged Bottom: 86.20 ft at (time):
Pump Used (circle): Peristaltic (Bladder) Other (describe):
Purge Rate:
Comments: Turbidity on YSI much higher than readings from Geotech turbidity meter.
Total Volume Purged: 1.5 gallons
Pump Speed:

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 14:22 | 69.11 ft | 9.1 | 12.15 | 483.9 | 7.35 | 156.8 | 32.57 |
| 14:25 | | 9.3 | 13.38 | 505 | 7.22 | 168. | 50.20 |
| 14 27 | | 9.4 | 13.22 | 507 | 7.21 | 170.7 | 52.35 |
| 14 30 | | 9.4 | 13.18 | 508 | 7.20 | 171.2 | 53.83 |
| 1433 | | 9.4 | 13.06 | 509 | 7.19 | 1731 | 56.11 |
| 1436 | | 9.5 | 12.94 | 510 | 7.16 | 175.2 | 60.14 |
| 1439 | | 9.6 | 12.85 | 512 | 7.13 | 177.8 | 65.90 |
| ~~1503~~ 1442 | | 9.8 | 12.08 | 515 | 7.07 | 180 | 68.48 |
| 1445 | | 10.0 | 12.92 | 518 | 7.00 | 182 | 129.7 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**Sample Analyst Signature:** [signature]
**Sample Analyst Name:** Joey Lane
**Date:** 2/18/2025

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW #13

Project Name: Alco Intalco Groundwater Monitoring 2025
Project Number: ~~230002-05.04~~ JL 230002-05.06
Project Location: 4050 Mountain View Rd Ferndale WA
Sample Collector(s): JL, MB, JR
Well Diameter: 4 in
Screen Interval: 162-172 ft bgs
Well Depth (as constructed): ~~175.0~~ 81 ft bgs
Depth to Water: 61.71 ft
Measuring Point: N
Depth of Pump Intake: 72 ft

Date: 2/18/2025
Weather: Cloudy 42°F
Facility ID or Permit # (if applicable):
Sample ID (on COC): SMW#13-20250218
Arrive at Well: 11:00
Start Time: 11:20
Sample Time: 12:00
Leave Well:
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 85.34 ft at (time):

Pump Used (circle): Peristaltic (Bladder) Other (describe):
Purge Rate:
Comments: @ 11:56 took additional reading of turbidity to get 31 NTU
Total Volume Purged: 2 gal
Pump Speed:

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen ~~(mg/L)~~ % | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 11:20 | | 9.3 | 93.0 | 733 | 6.84 | -10.1 | 22.90 |
| 1123 | | 10.0 | 52.8 | 793 | 6.82 | 172 | 29.02 |
| 1126 | | 10.1 | 44.2 | 795 | 6.82 | 172 | 25.02 |
| 1129 | | 10.1 | 43.1 | 796 | 6.82 | 172 | 24.04 |
| 1132 | | 10.2 | 42.9 | 795 | 6.82 | 172.2 | 26.12 |
| 1135 | | 10.1 | 56.4 | 723 | 6.87 | 171.7 | 25.07 |
| 1138 | | 10.0 | 60.9 | 709 | 6.87 | 172.4 | 24.08 |
| 1141 | | 10.0 | 63 | 705 | 6.88 | 173 | 29.0 |
| 1144 | | 10.1 | 64.6 | 701 | 6.88 | 173.6 | 37.0 |
| 1147 | | 10.1 | 66.0 | 701 | 6.89 | 174.3 | 52.9 |
| 1150 | | 9.9 | 67.3 | 700 | 6.89 | 174.9 | 70.12 |
| 1153 | | 9.9 | 69.1 | 699 | 6.90 | 175.7 | 86.20 |
| 1156 | | 9.9 | 71 | ~~701~~ 699 | 6.91 | 176.6 | 97.36 |
| | | | | | | | NA |
| | | | | | | | |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** MB, JL, JR **Date:** 2/18/2

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

Anchor QEA of North Carolina, PL
231 Haywood Str
Asheville, North Carolina 288

## Low-Flow Sampling Log

**Well ID:** SMW #14

Project Name: Alcoa Intalco 2025 GW Monitoring
Project Number: 230002-05.06
Project Location: 4050 Mountain View Rd Ferndale WA
Sample Collector(s): MB, JR
Well Diameter: 4 in
Screen Interval: 162-172 ft bgs
Well Depth (as constructed): ~~182.40~~ 175 ft bgs
Depth to Water: 166.40 ft
Measuring Point:
Depth of Pump Intake: 179 ft
Pump Used (circle): Peristaltic (Bladder) Other (describe):
Comments: 50 mm of purging ended early & product is ~10mL of water, left tubing to retry 2/21/25

Date: 2/20/25
Weather: 42 Cloudy
Facility ID or Permit # (if applicable):
Sample ID (on COC): N/A
Arrive at Well: 14:30
Start Time: ~~242~~ JR 1442
Sample Time: N/A
Leave Well: 15:20
Well Type: (Stick Up) □Flush Mount
Tagged Bottom: 182.40 ft at (time):
Purge Rate:
Total Volume Purged: 20 mL
Pump Speed:

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 1512 | ~~10.1~~ mb | 10.1 | 11.64 | 353.6 | 8.11 | 136 | 52.40 |
| 1517 | | 10.1 | 11.65 | 354.0 | 8.10 | 137 | 48.30 |
| 1522 | | 9.9 | 11.76 | 354 | 8.08 | 135.0 | 51.72 |
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| | | | | | | MB | |
| | | | | | | | |

**Sample Analyst Signature:** Mikayla Barr
**Sample Analyst Name:** Mikayla Barr
**Date:** 2/21/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

| | |
|---|---|
| °C: degrees Celsius | S.U.: standard units |
| µmhos/cm: micromhos per centimeter | ft: feet |
| mg/L: milligrams per liter | in: inches |
| mV: millivolt | bgs: below ground surface |
| nephelometric turbidity units | TOC: top of casing |

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

ANCHOR QEA

Anchor QEA of North Carolina, P
231 Haywood St
Asheville, North Carolina 28

## Low-Flow Sampling Log

**Well ID:** SMW#14

Project Name: Alcoa Intalco 2025 GW Monitoring
Project Number: 23002-05.06
Project Location: 4050 Mountain View Rd Ferndale WA
Facility ID or Permit # (if applicable):
Sample Collector(s): JL, MB
Well Diameter: 4 in
Screen Interval: 162-172 ft bgs
Well Depth (as constructed): ~~182~~ 175 ft bgs
Depth to Water: 166.28 ft
Measuring Point: ~~+2~~
Depth of Pump Intake: 172 ft
Pump Used (circle): Peristaltic (Bladder) Other (describe):
Comments:

Date: 2/21/25
Weather: Cloudy, drizzle 45°F
Sample ID (on COC): SMW#14-20250221
Arrive at Well: 8:45
Start Time: 8:50
Sample Time: 11:50
Leave Well:
Well Type: ☐Stick Up ☐Flush Mount
Tagged Bottom: 184.51 ft at (time):
Purge Rate:
Total Volume Purged: 1 gal
Pump Speed:

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU |
|---|---|---|---|---|---|---|---|
| 9:00 | | 7.5 | 13.90 | 353.5 | 7.81 | 185.0 | 18.05 |
| 9:03 | | 7.7 | 13.7 | 353.9 | 7.77 | 134.9 | 15.96 |
| 9:06 | | 7.9 | 12.73 | 354 | 7.73 | 185.5 | 13.36 |
| 9:09 | | 7.8 | 12.36 | 354.1 | 7.71 | 185.7 | 12.40 |
| 9:11 | | 7.7 | 11.51 | 354.0 | 7.70 | 185.9 | 16.36 |
| 9:14 | | 7.8 | 11.04 | 353.7 | 7.70 | 186.1 | 15.05 |
| 9:17 | | 7.8 | 10.58 | 353.7 | 7.69 | 186. | 17.41 |
| ~~9~~ 9:20 | | 7.8 | 9.98 | 354.0 | 7.68 | 179.2 | 71.20 |
| 9:23 | | 7.7 | 9.46 | 354.1 | 7.64 | 175.0 | 126.9 |
| 9:26 | | 7.7 | 8.82 | 353.5 | 7.6 | 131.4 | 164.0 |
| 9:30 | | 7.8 | 4.67 | 353.7 | 7.41 | 100.2 | 345.4 |
| ~~9:33~~ 9:33 | | 7.6 | 2.87 | 354.8 | 7.36 | 36.4 | 330. |
| 9:34 | | 7.8 | 2.33 | 355.9 | 7.31 | 16.2 | 323.5 |
| 9:37 | | 7.8 | 0.37 | 359.1 | 7.29 | -12.9 | 254.98 |
| 9:40 | | 7.7 | 0.84 | 359.9 | 7.29 | -18.0 | 256.3 |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** JL, MB **Date:** 2/21/20

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

End of Purge
DTW 166.26 DTB 182.4

ANCHOR QEA

Anchor QEA of North Carolina, PL
231 Haywood Stre
Asheville, North Carolina 288

## Low-Flow Sampling Log

**Well ID:** SMW#14

Project Name: Alcon Intake
Date: 2/26/25
Project Number: 23002-05.06
Weather: Cloudy
Project Location: 4050 Mt. View
Facility ID or Permit # (if applicable): SMW#14 - 20250226
Sample Collector(s): MB, JL
Sample ID (on COC): –
Well Diameter: 4in
Arrive at Well: 9:00
Screen Interval: 172-162 ft bgs
Start Time: 9:12
Well Depth (as constructed): 175 ft bgs
Sample Time: 10:44
Depth to Water: ~~166.05~~ 166.29 ft
Leave Well: 12:00
Measuring Point: ~~TOC~~ TMP
Well Type: ☒ Stick Up ☐ Flush Mount
Depth of Pump Intake: ~~183.30~~ ~~190~~ 170 to 171 at 10:28
Tagged Bottom: ~~195~~ 183.30 at (time):
Pump Used (circle): Peristaltic Bladder Other (describe):
Purge Rate: 120 mL - 60 (12 mL/min)
Comments: 5in standpipe, Very bubbly discharge
120:2/0 min → 60 mL/2 min → 30 mL/2 min
Total Volume Purged:
Pump Speed:

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 9:30 | ±166.40 | 9.2 | 11.81 | 346.7 | 7.95 | 89.1 | 2258 |
| 9:33 | 166.40 | 9.0 | 11.90 | 344.6 | 8.02 | 90.3 | 17.48 |
| 9:36 | 166.40 | 8.8 | 12.01 | 308.1 | 8.05 | 96.7 | 10.61 |
| 9:39 | 166.40 | 8.7 | 12.05 | 229.1 | 8.04 | 101.6 | 14.00 |
| 9:42 | 166.40 | 8.7 | 12.00 | 336.1 | 8.03 | 102.9 | 19.63 |
| 9:45 | 166.40 | 8.8 | 11.88 | 345.2 | 8.06 | 104.9 | 6.18 |
| 9:48 | 166.40 | 8.7 | 11.95 | 344.8 | 8.06 | 108.7 | 4.73 |
| 9:51 | " " | 8.8 | 12.7 | 344.0 | 7.98 | 114.6 | 12.18 |
| 9:54 | " " | 8.8 | 15.15 | 343.8 | 7.99 | 114.3 | 8.95 |
| 9:57 | " " | 8.8 | 12.13 | 344.2 | 8.01 | 114.9 | 9.50 |
| 10:00 | " " | 8.8 | 12.14 | 344.3 | 8.02 | 113.7 | 14.10 |
| 10:03 | " " | 8.9 | 12.10 | 344.2 | 8.03 | 114.2 | 14.18 |
| 10:06 | 166.40 | 8.9 | 12.09 | 343.9 | 8.02 | 114.3 | 13.83 |
| 10:09 | " " | 9.1 | 12.10 | 344.1 | 8.07 | 112.6 | 10.29 |
| 10:11 | 166.40 | 9.1 | 12.00 | 344.7 | 8.07 | 110.8 | 11.07 |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Mikayla Bowers **Date:** 2/26/25

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

ANCHOR QEA

Anchor QEA of North Carolina, PLLC
231 Haywood Street
Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW#15R

Project Name: Alcoa Intalco
Project Number: 23002-05.06
Project Location: 4050 Mt. View Rd
Facility ID or Permit # (if applicable):
Sample Collector(s): MB, JL
Sample ID (on COC): SMW#15R-20250225
Well Diameter: 2in in
Arrive at Well: 8:50 SMW#1015R-20250225
Screen Interval: 125.5 - 115.2 ft bgs
Start Time: 9:15
Well Depth (as constructed): 130.0 ft bgs
Sample Time: 10:30
Depth to Water: 124.52 ft
Leave Well: 11:15
Measuring Point: ~~TOC~~ 126.69 → 126. Well Type: □Stick Up 31" □Flush Mount
Depth of Pump Intake: " " ft
Tagged Bottom: 130.95 ft at (time): 9:20
Pump Used (circle): Peristaltic (Bladder) Other (describe):
Purge Rate: 135 mL/min
Comments: Slight tan/brown color, lots of ~~silt~~ strip by ~~bit~~ Total Volume Purged: 1 gal
6cm → now visible @ 126" to pump
Pump Speed:

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 9:45 | 124.58 | 10.9 | 8.45 | 214.7 | 6.98 | 118.1 | 128.48 |
| 9:48 | 124.60 | 11.0 | 8.33 | 214.3 | 6.96 | 122.7 | 109.37 |
| 9:51 | 124.60 | 10.8 | 8.29 | 214.6 | 6.96 | 126.3 | 84.90 |
| 9:54 | 124.63 | 10.9 | 8.29 | 214.0 | 6.96 | 128.1 | 92.40 |
| 9:57 | 124.60 | 11.2 | 8.26 | 214.1 | 6.96 | 130.2 | 77.00 |
| 10:00 | 124.68 | 11.2 | 8.26 | 214.9 | 6.96 | 132.4 | 76.71 |
| 10:03 | 124.62 | 11.3 | 8.25 | 216.6 | 6.96 | 133.5 | 55.07 |
| 10:06 | 124.65 | 11.4 | 8.22 | 215.2 | 6.96 | 134.1 | 43.41 |
| 10:09 | 124.68 | 11.5 | 8.20 | 215.8 | 6.96 | 134.5 | 34.40 |
| 10:11 ~~10:12~~ | 124.63 | 11.8 | 8.17 | 215.9 | 6.96 | 135.9 | 28.73 |
| 10:14 | 124.69 | 11.8 | 8.17 | 216.8 | 6.96 | 136.9 | 21.03 |
| 10:17 | 124.69 | 11.8 | 8.13 | 216.5 | 6.96 | 137.6 | 18.57 |
| 10:20 | 124.71 | 12.1 | 8.11 | 217.2 | 6.96 | 139.0 | 15.50 |
| 10:23 | 124.73 | 12.2 | 8.15 | 215.7 | 6.96 | 139.7 | 13.87 |
| 10:26 | | | | | | | |

**Sample Analyst Signature:** **Sample Analyst Name:** **Date:**

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

Anchor QEA of North Carolina, PLLC
231 Haywood Street
Asheville, North Carolina 28801

ANCHOR QEA

## Low-Flow Sampling Log

Well ID: SMW#19

Project Name: Alcoa Interlco
Project Number: 23002-05.06
Project Location: 4050 Mt. View
Sample Collector(s): MB, JL
Well Diameter: 4in
Screen Interval: 173-163
Well Depth (as constructed): 178
Depth to Water: 171.65
Measuring Point:
Depth of Pump Intake: 172.50 bgs
Pump Used (circle): Peristaltic Bladder Other (describe):

Date: 2/25/25
Weather: Cloudy
Facility ID or Permit # (if applicable):
Sample ID (on COC): SMW#19-20250225
Arrive at Well: ~~#5~~ 11:30
Start Time: 12:03
Sample Time: 14:10 GRAB SAMPLE
Leave Well: 14:35
Well Type: ☒Stick Up 18" ☐Flush Mount
Tagged Bottom: 187.90 ft at (time): —
Purge Rate: —
Total Volume Purged: —
Pump Speed:

Comments: 1.42 ft for standpipe, Pump off @ ≈ 100mL- Stopped pumping → took what had been removed + placed in cylinder for reading

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 12:42 | | 8.6 | 11.73 | 327.9 | 8.36 | 22.0 | 180.92 |
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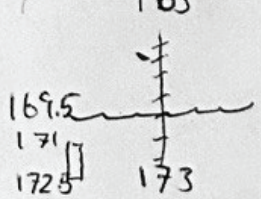
Sample Analyst Signature: Sample Analyst Name: Date:

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

171 / 169.5



ANCHOR QEA

SAMPLE DISCARDED

Anchor QEA of North Carolina, PLLC
231 Haywood Street
Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW#2

Project Name: Alcoa Intalco
Project Number:
Project Location: 4050 Mt. Muwod
Facility ID or Permit # (if applicable): —
Sample Collector(s): MB, SR
Sample ID (on COC): ~~SMW-2-20250508~~ Sample Discarded
Well Diameter: 4" in
Screen Interval: 64 - 74 ft bgs
Well Depth (as constructed): 74 ft bgs
Depth to Water: 63.42 → 62.97 ft
Measuring Point: 5.45 in → 0.45 ft
Depth of Pump Intake: 72 ft ft
Pump Used (circle): Peristaltic Bladder Other (describe): GeoSub II
Comments: 63.42 - 0.45ft = 72. + 0.45 - 1ft = 72.5

Date: 5/8/2025
Weather: 55 Sunny
Arrive at Well: ~~14:00~~ 14:00
Start Time: ~~2:06~~ 14:06
Sample Time: 1508
Leave Well: 1510
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 74.0 ft at (time): 1405
Purge Rate: 200 mL/min
Total Volume Purged: 2 gal
Pump Speed: 52

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 1440 | 63.68 | 24.8 | 5.37 | 500.1 | 7.86 | 122.3 | cloudy |
| 1443 | 63.70 | 14.3 | 1.06 | 500.7 | 7.88 | 121.3 | ↓ |
| 1446 | 63.71 | 14.6 | 0.96 | 500.2 | 7.91 | 119.9 | ↓ |
| 1449 | 63.71 | 14.6 | 0.97 | 499.9 | 7.93 | 119.6 | ↓ |
| 1452 | 63.76 | 14.6 | 1.10 | 499.6 | 7.95 | 119.9 | little cloudy |
| 1455 | 63.76 | 14.6 | 1.10 | 499.1 | 7.95 | 119.6 | cloudy |
| 1458 | 63.80 | 14.7 | 1.10 | 498.1 | 7.97 | 119.1 | |
| 1501 | 63.80 | 14.7 | 1.11 | 497.8 | 7.97 | 119.1 | |
| 1504 | 63.80 | 14.6 | 1.11 | 497.0 | 7.97 | 119.2 | |
| 1507 | | 14.7 | 1.11 | 497.0 | 7.97 | 119.3 | |
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**Sample Analyst Signature:** [signature]
**Sample Analyst Name:** Mikeyh Bi Joey L.
**Date:** 5/8/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

ANCHOR QEA

Anchor QEA of North Carolina, PLLC
231 Haywood Street
Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW#2

Project Name: Alcoa Intalco 2025 GW Monitoring
Project Number: 230002-05.06
Project Location: 4050 mountainview rd
Facility ID or Permit # (if applicable): —
Sample Collector(s): JL, MB
Sample ID (on COC): SMW-2-20250509, SMW-102-20250509
Well Diameter: 4 in
Screen Interval: 61-71' ft bgs
Well Depth (as constructed): 71 ft bgs
Depth to Water: 63.41 ft
Measuring Point: TOC
Depth of Pump Intake: 72' bgs 70' ft
Pump Used (circle): Peristaltic Bladder Other (describe): Grosub H
Comments: FD collected

Date: 5/9/2025
Weather: 55 overcast, slight breeze from W
Arrive at Well: 12:00
Start Time: 12:10
Sample Time: 12:30
Leave Well: 12:40
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 72.55 ft at (time): 12:05
Purge Rate: 100 ml/min
Total Volume Purged: 1 gal
Pump Speed: 62

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 12:10 | 63.60 | 14.6 | 3.21 | 486.9 | 7.92 | 130.4 | |
| 12:13 | | 14.0 | 3.54 | 490.6 | 7.99 | 128.8 | clear |
| 12:16 | | 13.9 | 3.73 | 492.3 | 8.02 | 127.3 | |
| 12:19 | 63.58 | 13.9 | 3.72 | 492.2 | 8.02 | 127.1 | |
| 12:22 | 63.61 | 14.1 | 3.82 | 493.3 | 8.04 | 125.8 | |
| 12:25 | 63.63 | 14.3 | 3.93 | 493.6 | 8.05 | 125.0 | |
| 12:28 | | 14.5 | 4.06 | 494.7 | 8.07 | 124.1 | |
| 12:31 | | | | | | | |
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**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Joey Lane **Date:** 5/9/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** MW-3

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Intalco | Date: | 5/7/25 |
| Project Number: | 230002-05.06 | Weather: | Sunny, calm, ~55°F |
| Project Location: | Ferndale WA | Facility ID or Permit # (if applicable): | |
| Sample Collector(s): | Jake R / Joey L / Mikayla | Sample ID (on COC): | SMW-3-20250507 |
| Well Diameter: | 4" in | Arrive at Well: | 10:18 |
| Screen Interval: | 39-54' ft bgs | Start Time: | 10:30 |
| Well Depth (as constructed): | 58.0 ft bgs | Sample Time: | 11:00 |
| Depth to Water: | 51.22 from TOC ft | Leave Well: | 11:15 |
| Measuring Point: | ~~58.73~~ N. Side PVC | Well Type: ~~Stick Up~~ ☐Flush Mount | |
| Depth of Pump Intake: | ~~58.0~~ 54.6 from TOC ft | Tagged Bottom: | 58.73 ft at (time): 10:33 |
| Pump Used (circle): | Peristaltic Bladder Other (describe): | Geopump 2 | Purge Rate: 150 mL/min |
| Comments: | Target intake depth = 54.6 | | Total Volume Purged: 1.25 g |
| | | | Pump Speed: 57 |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) report to 0.1 S.U. | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 10:35 | 51.29 | 13.2 | 7.59 | 1671 | 7.29 | 154.2 | |
| 10:38 | 51.28 | 13.0 | 7.32 | 1663 | 7.34 | 151.3 | |
| 10:41 | 51.27 | 13.1 | 7.31 | 1711 | 7.36 | 150.5 | |
| 10:44 | 51.26 | 13.1 | 7.45 | 1720 | 7.38 | 149.2 | <5 |
| 10:47 | 51.27 | 13.4 | 7.23 | 1712 | 7.40 | 147.7 | |
| 10:50 | 51.26 | 13.5 | 7.19 | 1714 | 7.41 | 146.8 | <5 |
| 10:53 | 51.25 | 13.4 | 7.02 | 1700 | 7.42 | 146.0 | |
| 10:56 | 51.25 | 13.4 | 6.78 | 1684 | 7.43 | 145.4 | <5 |
| 10:59 | 51.25 | 13.6 | 6.70 | 1688 | 7.43 | 144.7 | |
| 11:02 | | | | | | | |
| 11:05 | | | | | | | |
| 11:08 | | | | | | | |
| 11:11 | | | | | | | |
| 11:14 | | | | | | | |
| 11:17 | | | | | | | MS |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Jake Reigh **Date:** 5/7/25

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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# Low-Flow Sampling Log

**Well ID:** SMW #6

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Intalco | Date: | 5/7/25 |
| Project Number: | 230002-05.06 | Weather: | Sunny, Calm, ~55°F |
| Project Location: | Ferndale WA | Facility ID or Permit # (if applicable): | |
| Sample Collector(s): | JR/JL/MS | Sample ID (on COC): | SMW-6-20250507 |
| Well Diameter: | 4" in | Arrive at Well: | 1130 |
| Screen Interval: | 53-68 ft bgs | Start Time: | 1140 |
| Well Depth (as constructed): | 68 ft bgs | Sample Time: | 1228 |
| Depth to Water: | 61.01' ft | Leave Well: | 1240 |
| Measuring Point: | N. Side PVC | Well Type: ~~Stick Up~~ | ☐Flush Mount |
| Depth of Pump Intake: | 64.5' bgs ft | Tagged Bottom: 72.21 ft | at (time): 1133 |
| Pump Used (circle): | Peristaltic Bladder Other (describe): | GEOPump 2 | Purge Rate: 200mL/m |
| Comments: | | | Total Volume Purged: 3 gal |
| | | | Pump Speed: Low Flow |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) report to 0.1 S.U. | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 1155 | 61.04 | 14.0 | 9.42 | 686 | 7.40 | 117.1 | <10 |
| 11:58 | 61.0 | 13.3 | 9.50 | 686 | 7.39 | 118.0 | |
| 12:01 | 61.03 | 14.0 | 8.31 | 678 | 7.41 | 117.3 | |
| 12:04 | — | — | — | — | — | — | Pump |
| 12:07 | — | — | — | — | — | — | ERROR |
| 12:10 | | 13.1 | 9.70 | 562.5 | 7.36 | 119.4 | <10 |
| 12:13 | | 13.5 | 9.63 | 678 | 7.34 | 119.7 | |
| 12:16 | 61.10 | 13.4 | 9.63 | 363 | 6.50 | 122.5 | |
| 12:19 | 61.02 | 14.1 | 9.60 | 682 | 7.36 | 119.0 | |
| 12:22 | 61.05 | 14.8 | 9.36 | 634 | 7.37 | 119.2 | |
| 12:25 | 61.06 | 13.4 | 9.65 | 688 | 7.33 | 120.1 | <10 |
| 12:28 | 61.050 | 13.7 | 9.61 | 689 | 7.34 | 119.8 | |
| 12:31 | | | | | | | |
| 12:34 | | | | | | | |
| 12:37 | | | | | | | MS |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Jake Regin **Date:** 5/7/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW# 9

Project Name: Alcoa Intalco 2025 GW Monitoring
Project Number: 230002-05.06
Project Location: 4050 Mountain View Rd
Facility ID or Permit # (if applicable): —
Sample Collector(s): JL, MB, JR
Sample ID (on COC): SMW-9-20250507
Well Diameter: 4" in
Screen Interval: 58-68 ft bgs
Well Depth (as constructed): 73 ft bgs
Depth to Water: 68.85 ft
Measuring Point: 69.5' from TOC
Depth of Pump Intake: ~~72~~ 68 bgs ft
Pump Used (circle): Peristaltic Bladder Other (describe): GeoSub II pump
Comments:

Date: 5/7/2025
Weather: 60 of sunny
Arrive at Well: 12:45
Start Time: 13:17
Sample Time: 13:40
Leave Well: 14:00
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 74.95 ft at (time): 1250
Purge Rate: 180 ml/min
Total Volume Purged: 1.5 gal
Pump Speed: 67-71

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 1317 | 69.40 | 14.6 | 7.17 | 197.3 | 6.89 | 118.9 | |
| 1320 | 69.42 | 15.3 | 7.37 | 498.9 | 6.91 | 117.4 | |
| 1323 | 69.42 | 15.3 | 7.37 | 495.5 | 6.91 | 117.3 | |
| 1326 | 69.43 | 15.4 | 7.33 | 498~~5~~ | 6.91 | 117.4 | |
| 1329 | ~~69~~.40 | 16.6 | 6.52 | 499.0 | 6.96 | 113.9 | |
| 1332 | 69.37 | 16.8 | 6.43 | 499.7 | 6.95 | 113.9 | |
| 1335 | 69.34 | 17.4 | 7.04 | 500.1 | 6.94 | 114.3 | |
| 1338 | 69.34 | 18.0 | 6.95 | 499.8 | 6.94 | 113.7 | |
| 1341 | | | | | | | MB |

**Sample Analyst Signature:** Joey Lane
**Sample Analyst Name:** Joey Lane
**Date:** 5/7/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H⁺ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW# 10

Project Name: Alcoa Intalco
Project Number: 230002-05-06
Project Location: 4050 Mt. View Rd
Facility ID or Permit # (if applicable): —
Sample Collector(s): MB, JZ
Date: 05/08/25
Weather: Sunny
Sample ID (on COC): N/A
Well Diameter: 4" in
Screen Interval: 50.5-68.5 ft bgs
Arrive at Well: 1:45
Start Time: N/A
Well Depth (as constructed): 173.5 ft bgs
Sample Time: N/A
Depth to Water: 70.39 ft
Leave Well: 2:10
Measuring Point: 0.45 in
Well Type: ☒Stick Up ☐Flush Mount
Depth of Pump Intake: N/A ft
Tagged Bottom: 174.80 ft at (time): —
Pump Used (circle): Peristaltic Bladder Other (describe): GeoSub 2
Purge Rate: —
Comments: Corrected DTW for TOC - 69.94 DTW, below the screen and could not sample
Total Volume Purged: —
Pump Speed: —

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
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**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Mikayla B., Joey L. **Date:**

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW# 12

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Intalco 2025 GW Monitoring | Date: | 5/6/2025 |
| Project Number: | 230002-05.06 | Weather: | 65°F Sunny |
| Project Location: | 4050 Mountainview Rd | Facility ID or Permit # (if applicable): | — |
| Sample Collector(s): | JL, JR | Sample ID (on COC): | SMW-12-20250506 |
| Well Diameter: | 4 in | Arrive at Well: | 14:15 |
| Screen Interval: | 67-77 ft bgs | Start Time: | 14:22 |
| Well Depth (as constructed): | 82.0 ft bgs | Sample Time: | 15:05 |
| Depth to Water: | 68.38 ft | Leave Well: | 15:30 |
| Measuring Point: | ~~TOC~~ M. PVC | Well Type: | ☒Stick Up ☐Flush Mount |
| Depth of Pump Intake: | 72.5 ft | Tagged Bottom: | 85.5 ft at (time): 14:20 |
| Pump Used (circle): | Peristaltic Bladder Other (describe): | Geopump 2 | Purge Rate: 150 mL/m |
| Comments: | | | Total Volume Purged: 1.5 gal |
| | | | Pump Speed: 56 |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) report to 0.1 S.U. | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 1433 | 68.42 | 17.8 | 7.62 | 546.2 | 7.15 | 156.8 | <5 |
| 1436 | 68.43 | 14.6 | 8.67 | 453.8 | 7.12 | 157.8 | |
| 1439 | 68.42 | 13.5 | 9.18 | 497.5 | 6.97 | 160.7 | <5 |
| 1442 | 68.38 | 17.1 | 7.22 | 567.2 | 7.03 | 156.2 | |
| 1445 | 68.32 | 17.6 | 7.33 | 576.5 | 7.10 | 157.8 | |
| 1448 | 68.40 | 16.9 | 7.74 | 580.2 | 7.07 | 159.8 | <10 |
| 1451 | 68.42 | 17.4 | 7.90 | 550.8 | 7.00 | 157.8 | |
| 1454 | 68.40 | 14.8 | 9.07 | 531.8 | 6.97 | 159.7 | |
| 1457 | 68.40 | 14.1 | 9.19 | 511.2 | 6.92 | 159.7 | <10 |
| ~~1500~~ 1500 | 68.46 | 14.2 | 9.32 | 504.5 | 6.92 | 158.0 | |
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| | | | | | | | |
| | | | | | | | JM3 |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Jake Reyna **Date:** 5/6/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW #13

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Intalco 2025 GW Monitoring | Date: | 5/6/2025 |
| Project Number: | 230002-05.06 | Weather: | 65°F Sunny |
| Project Location: | 4050 Mountainview Rd | Facility ID or Permit # (if applicable): | / |
| Sample Collector(s): | JL, JR | Sample ID (on COC): | SMW-13-20250506 |
| Well Diameter: | 4 in | Arrive at Well: | 12:30 |
| Screen Interval: | 66 - 76 ft bgs | Start Time: | 13:00 |
| Well Depth (as constructed): | 81.0 ft bgs | Sample Time: | 13:35 |
| Depth to Water: | ~~60.25~~ JL 61.28 ft (60.05 w/ pump installed) | Leave Well: | 14:00 |
| Measuring Point: | TOC 6.12" | Well Type: | ☐Stick Up ☐Flush Mount |
| Depth of Pump Intake: | 68.5 ft | Tagged Bottom: | 82.45 ft at (time): 12:30 |
| Pump Used (circle): | Peristaltic Bladder | Other (describe): | Geotech Geosub 2 |
| Comments: | | Purge Rate: | 175 ml/min |
| | | Total Volume Purged: | 1.5 gal |
| | | Pump Speed: | 60 |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 13:00 | 61.02 | 12.3 | 5.05 | 696 | 6.66 | 172.6 | Clear |
| 1303 | | | | | | | ↓ |
| 1306 | 60.4 | 14.3 | 4.30 | 711.6 | 6.26 | 175.6 | |
| 1309 | 60.54 | 14.9 | 5.11 | 712 | 6.76 | 169.2 | |
| 1312 | 61.00 | 12.5 | 5.00 | 707 | 6.70 | 169.2 | <5 |
| 1315 | 61.35 | 12.5 | 4.92 | 705 | 6.71 | 168.2 | |
| 1319 | 61.40 | 12.4 | 4.94 | 706 | 6.72 | 167.4 | <5 |
| 1321 | 61.55 | 12.4 | 5.00 | 709 | 6.71 | 167.2 | |
| 1324 | 61.40 | 13.5 | 4.49 | 697 | 6.72 | 166.1 | <5 |
| 1327 | 61.09 | 14.2 | 4.48 | 709 | 6.72 | 165.1 | |
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**Sample Analyst Signature:** [signature]

**Sample Analyst Name:** Mikayla Bowes

**Date:** 5/6/2025

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

Power Out @ 53 m

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## Low-Flow Sampling Log

**Well ID:** SMW#14

Project Name: Alcoa Intalco 2025 GW monitoring
Project Number: 230002-05.06
Project Location: 4050 mountainview Rd
Facility ID or Permit # (if applicable): —
Sample Collector(s): JL, MB
Sample ID (on COC): SMW-14-20250508
Well Diameter: 4" in
Screen Interval: 162-172 ft bgs
Well Depth (as constructed): 175 ft bgs
Depth to Water: 166.09 ft from TOC
Measuring Point: 5.25" abg (TOC)
Depth of Pump Intake: 169.5 + 1 → 170.5 ft from TOC
Pump Used (circle): Peristaltic Bladder Other (describe): Geosub II
Comments: Generator (2,200W) used to power pump
0945 no water flowing, reset, pump at 200, Success

Date: 5/8/2025
Weather: 60 F, Sunny
Arrive at Well: 09:00
Start Time: 09:50
Sample Time: 10:15
Leave Well: 10:25
Well Type: (Stick Up) □Flush Mount
Tagged Bottom: 174.85 ft at (time): 09:05
Purge Rate: 140 ml/min
Total Volume Purged: 1.5 gal
Pump Speed: 1.6

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 0950 | 166.50 | 11.2 | 9.40 | 340.0 | 7.81 | 128.0 | |
| 0953 | 166.51 | 10.9 | 6.26 | 337.5 | 7.83 | 127.3 | Clear |
| 0956 | 166.50 | 11.1 | 6.14 | 337.5 | 7.85 | 125.9 | |
| 0959 | 166.51 | 11.3 | 6.37 | 338.8 | 7.88 | 124.3 | |
| 1002 | 166.51 | 11.2 | 6.18 | 339.2 | 7.88 | 124.2 | |
| 1005 | 166.51 | 11.2 | 6.54 | 339.3 | 7.89 | 120.2 | |
| 1008 | 166.51 | 11.3 | 6.08 | 338.5 | 7.89 | 123.7 | |
| 1011 | 166.51 | 11.5 | 6.36 | 338.6 | 7.91 | 118.8 | |
| 1014 | 166.51 | 11.5 | 6.21 | 338.7 | 7.91 | 122.7 | |
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MS

**Sample Analyst Signature:** [signature]
**Sample Analyst Name:** Joey Lane
**Date:** 5/8/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

Anchor QEA of North Carolina, PLLC
231 Haywood Street
Asheville, North Carolina 28801

# Low-Flow Sampling Log

JL

Well ID: ~~SMW-15R~~ SMW#15R

Project Name: Alcoa Interlco
Project Number: 230002-05.06
Project Location: 4050 Mt. View Rd
Sample Collector(s): JL, MB
Well Diameter: 2" in
Screen Interval: 115.5-125.5 ft bgs
Well Depth (as constructed): 130 ft bgs
Depth to Water: 124.18 ft
Measuring Point: 2.60ft
Depth of Pump Intake: ~~121.58~~ 123.5 ft
MB
Pump Used (circle): Peristaltic Bladder Other (describe): Geosub 2
Comments: 123.5 + 26 - 1 = 125.1 target twice diff from TOC

Date: 5/8/25
Weather: Sunny, light wind
Facility ID or Permit # (if applicable): —
Sample ID (on COC): SMW-15R-20250508
Arrive at Well: 12:10
Start Time: 12:28
Sample Time: 13:20
Leave Well: 13:30
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 128.88 ft at (time): 12:20
Purge Rate: 200 ml/min
Total Volume Purged: 2 gal
Pump Speed: 103

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| MB ~~12:38~~ | ~~124.18~~ | | | | | | |
| 1301 | 125.30 | 21.5 | 8.17 | 224.1 | 7.01 | 108.5 | clear |
| 1304 | 125.36 | 21.3 | 6.65 | 223.8 | 6.98 | 107.6 | ↓ |
| 1307 | 125.21 | 20.7 | 6.34 | 223.9 | 6.93 | 108.2 | |
| 1310 | 125.21 | 20.7 | 6.27 | 223.3 | 6.91 | 108.1 | |
| 1313 | 125.39 | 21.4 | 6.13 | 222.2 | 6.93 | 105.9 | |
| 1316 | 125.05 | 21.3 | 5.85 | 223.9 | 6.93 | 105.7 | |
| 1319 | 125.05 | 21.3 | 5.72 | 222.9 | 6.92 | 106.2 | |
| 1422 | | | | | | | |
| 1425 | | | | | | | |

Sample Analyst Signature: Joey Lane
Sample Analyst Name: Joey Lane
Date: 5/8/2025

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

ANCHOR QEA

Anchor QEA of North Carolina, PLLC
231 Haywood Street
Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW#19

Project Name: Alcoa Intalco 2025 GW Monitoring
Project Number: 230002-05.06
Project Location: 4050 Mountain View Rd
Sample Collector(s): JL, MB
Well Diameter: 4" in
Screen Interval: 163 - 173 ft bgs
Well Depth (as constructed): 178 ft bgs
Depth to Water: ~~171.77~~ 172.30 TOC ft
Measuring Point: ~~3/4" ags~~ 23.70" TOC
Depth of Pump Intake: 172' bgs ft
Pump Used (circle): Peristaltic Bladder Other (describe): Geosub 2
Comments: corrected dtw 170.3' bgs; target depth of intake 172' bgs, 173' tubing wt 12" pump length, 24" stand up

Date: 5/8/2025
Weather: 60 F sunny
Facility ID or Permit # (if applicable): —
Sample ID (on COC): SMW-19-20250508
Arrive at Well: ~~11:00~~ 10:30
Start Time: 11:05
Sample Time: 11:45
Leave Well: 12:00
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 180.54 ft at (time): 1040
Purge Rate: 150 mL/min
Total Volume Purged: 2 gal
Pump Speed: 150

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) report to 0.1 S.U. | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 1121 | 173.00 | 11.8 | 2.14 | 311.1 | 8.40 | 129.9 | clear |
| 1124 | 173.05 | 12.0 | 1.82 | 305.6 | 8.42 | 128.8 | |
| 1127 | 173.05 | 12.3 | 2.20 | 310.3 | 8.41 | 129.2 | |
| 1130 | 173.05 | 12.6 | 1.89 | 310.7 | 8.42 | 127.9 | |
| 1133 | 173.15 | 12.5 | 1.28 | 307.4 | 8.43 | 127.8 | |
| 1136 | 173.17 | 12.7 | 1.50 | 311.4 | 8.42 | 127.6 | |
| 1139 | 173.20 | 13.0 | 1.55 | 310.4 | 8.42 | 127.0 | |
| 1142 | 173.20 | 13.0 | 1.62 | 310.9 | 8.43 | 127.6 | |
| 1145 | | | | | | | MB |

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Joey Lane **Date:** 5/8/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

B

ANCHOR QEA

Anchor QEA
20 Bellwether Way Suite 102
Bellingham, WA 98225

## Low-Flow Sampling Log

**Well ID:** SMW-2

Project Name: Alcoa Intalco GW monitoring 2025
Project Number: 230002-0506
Project Location: 4250 Mountain View Rd.
Sample Collector(s): JL, MB
Well Diameter: 4 in
Screen Interval: 61-74 ft bgs
Well Depth (as constructed): 74 ft bgs
Depth to Water: 63.14 ft
Measuring Point: N
Depth of Pump Intake: 70.0 ft bgs
Pump Used (circle): Peristaltic Bladder Other (describe): Grosub II
Comments: Reps from Ecology observing

Date: 8/6/2025
Weather: Cloudy 70°F
Facility ID or Permit # (if applicable): —
Sample ID (on COC): SMW-2-20250806
Arrive at Well: 14:40
Start Time: 14:54
Sample Time: 15:41
Leave Well: 16:00
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 172.95 ft at (time): 14:50
Purge Rate: 300 mL/min
Total Volume Purged: 3 gal
Pump Speed: 50

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 3:00 | 63.32 | 14.9 | 3.24 | 555 | 8.03 | 116.3 | 40.2 |
| 3:03 | 63.31 | 15.0 | 2.68 | 503 | 8.05 | 73.1 | 40.2 |
| 3:06 | 63.33 | 15.3 | 3.55 | 503 | 8.07 | 61.2 | 38.8 |
| 3:09 | 63.35 | 15.1 | 3.39 | 505 | 8.08 | 52.1 | 35.2 |
| 3:11 | 63.34 | 15.2 | 2.92 | 503 | 8.09 | 51.4 | 26.9 |
| 3:14 | 63.34 | 15.4 | 3.47 | 503 | 8.10 | 54.4 | 23.2 |
| 3:17 | 63.35 | 15.3 | 3.47 | 504 | 8.11 | 58.2 | 20.1 |
| 3:20 | 63.35 | 15.2 | 3.27 | 503 | 8.11 | 60.8 | 22.3 |
| 3:23 | 63.34 | 15.5 | 3.41 | 502 | 8.13 | 64.8 | 19.8 |
| 3:26 | 63.32 | 16.0 | 3.21 | 502 | 8.14 | 68.4 | 15.2 |
| 3:29 | 63.38 | 14.5 | 2.63 | 501 | 8.12 | 68.2 | 9.7 |
| 3:32 | 63.40 | 14.7 | 2.55 | 500 | 8.13 | 68.1 | 9.43 |
| 3:35 | 63.45 | 14.9 | 2.35 | 500 | 8.15 | 68.3 | 13.3 |
| 3:37 | 63.45 | 15.3 | 2.23 | 498 | 8.16 | 68.0 | 9.37 |
| 3:40 | 63.42 | 15.5 | 227 | 499 | 8.16 | 70.0 | 8.94 |

**Sample Analyst Signature:** Joey Lane **Sample Analyst Name:** Joey Lane **Date:** 8/6/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

Anchor QEA
20 Bellwether Way Suite 102
Bellingham, WA 98225

## Low-Flow Sampling Log

**Well ID:** SMW-3

Project Name: Alcoa Intalco GW monitoring 2025
Project Number: 230002-05.06
Project Location: 4050 Mountain View Rd
Facility ID or Permit # (if applicable): ——
Sample Collector(s): JL, MB
Sample ID (on COC): SMW-3-20250806
Well Diameter: 4 in
Screen Interval: ~~61-74~~ 39-54 ft bgs
Well Depth (as constructed): ~~74~~ 58 ft bgs
Depth to Water: 51.42, 50.08 ft TOC, bgs
Measuring Point: N
Depth of Pump Intake: 52 ft bgs
Pump Used (circle): Peristaltic Bladder Other (describe): Geoprobe II
Comments:

Date: 8/6/2025
Weather: Cloudy 65°F
Arrive at Well: 13:30
Start Time: 13:50
Sample Time: 14:25
Leave Well: 14:32
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 58.94 ft at (time): 13:40
Purge Rate: 140 ml/min
Total Volume Purged: 2 gal
Pump Speed: 45

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 13:53 | 51.50 | 15.6 | 7.54 | 858 | 7.44 | 297.1 | 0.02 |
| 13:56 | 51.48 | 16.2 | 7.39 | 858 | 7.48 | 286.6 | 1.38 |
| 13:59 | 51.48 | 16.3 | 7.89 | 873 | 7.51 | 278.6 | 0.02 |
| 14:02 | 51.45 | 14.0 | 7.80 | 984 | 7.47 | 277.6 | 0.02 |
| 14:05 | 51.45 | 14.3 | 7.74 | 1022 | 7.51 | 269.8 | 0.02 |
| 14:08 | 51.50 | 14.3 | 7.77 | 1026 | 7.53 | 264.3 | 0.02 |
| 14:11 | 51.55 | 14.5 | 7.61 | 1050 | 7.54 | 259.8 | 0.02 |
| 14:14 | 51.52 | 14.7 | 7.41 | 1080 | 7.55 | 256.4 | 0.02 |
| 14:17 | 51.53 | 14.9 | 7.11 | 1117 | 7.54 | 253.3 | 0.02 |
| 14:20 | 51.50 | 15.0 | 6.85 | 1149 | 7.54 | 250.8 | 0.02 |
| 14:23 | 51.52 | 15.2 | 6.68 | 1179 | 7.54 | 248.6 | 0.02 |
| 14:26 | | | | | | | |
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cal

**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Joey Lane **Date:** 8/6/2025

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011.

Anchor QEA
20 Bellwether Way Suite 102
Bellingham, WA 98225

## Low-Flow Sampling Log

**Well ID:** SMW-6

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Intalco GW monitoring 2025 | Date: | 8/7/2025 |
| Project Number: | 230002-05.06 | Weather: | Sunny 70 °F |
| Project Location: | 4650 Mountain View Rd | Facility ID or Permit # (if applicable): | ---- CSJ |
| Sample Collector(s): | JL, MB | Sample ID (on COC): | SMW-6-20250807 |
| Well Diameter: | 4 in | Arrive at Well: | 10:20 |
| Screen Interval: | 53-68 ft bgs | Start Time: | 10:34 |
| Well Depth (as constructed): | 68 ft bgs | Sample Time: | 11:03 |
| Depth to Water: | 61.05 ft | Leave Well: | 11:10 |
| Measuring Point: | N | Well Type: | ☐Stick Up ☒Flush Mount |
| Depth of Pump Intake: | 67 ft | Tagged Bottom: | 72.0 ft at (time): 10:30 |
| Pump Used (circle): | Peristaltic Bladder | Other (describe): | GeoSub II |
| Comments: | | Purge Rate: | 200 mL/min |
| | | Total Volume Purged: | 2 gal |
| | | Pump Speed: | 52 |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 10:36 | 61.04 | 14.5 | 9.04 | 693 | ~~7.2~~ 7.35 | 222.3 | 13.4 |
| 10:39 | 61.04 | 13.3 | 8.55 | 690 | 7.37 | 218.6 | 7.56 |
| 10:42 | 61.05 | 13.3 | 8.28 | 691 | 7.34 | 218.3 | 8.18 |
| 10:45 | 61.05 | 13.4 | 8.32 | 693 | 7.37 | 215.8 | 9.01 |
| 10:48 | 61.05 | 13.9 | 8.19 | 692 | 7.41 | 213.3 | 10.30 |
| 10:51 | 61.05 | 13.8 | 8.32 | 693 | 7.42 | 212.8 | 8.96 |
| 10:54 | 61.05 | 13.8 | 8.38 | 694 | 7.42 | 212.4 | 12.3 |
| 10:57 | 61.05 | 14.0 | 8.14 | 693 | 7.42 | 211.6 | 8.14 |
| 11:00 | 61.05 | 14.1 | 8.20 | 693 | 7.42 | 211.0 | 6.58 |
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**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Joey Lane **Date:** 8/7/2025

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

ANCHOR QEA

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20 Bellwether Way Suite 102
Bellingham, WA 98225

## Low-Flow Sampling Log

**Well ID:** SMW-9

Project Name: Alcoa Intalco GW monitoring 2025 Date: 8/6/2025
Project Number: Weather: Rain, wind
Project Location: 4050 Mountain view Rd Facility ID or Permit # (if applicable):
Sample Collector(s): JL, MB Sample ID (on COC): SMW-9-20250806
Well Diameter: 4" in Arrive at Well: 08:29
Screen Interval: 58-68 ft bgs Start Time: 08:38
Well Depth (as constructed): 73 ft bgs Sample Time: 09:12
Depth to Water: 68.85 ft Leave Well: 09:30
Measuring Point: N Well Type: ☒Stick Up ☐Flush Mount
Depth of Pump Intake: 69.5 ft toc Tagged Bottom: 74.9 ft at (time): 08:35
Pump Used (circle): Peristaltic Bladder Other (describe): Geosub II Purge Rate: 200 mL/min
Comments: Strong decay-like odor Total Volume Purged: 2 gal
Pump Speed: 48

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 08:43 | 69.30 | 13.5 | 2.51 | 486.1 | 6.13 | ~~-196.3~~ | 7.21 |
| 08:46 | 69.35 | 13.5 | 3.03 | 491.6 | 6.90 | -187.5 | 5.32 |
| 08:49 | 69.40 | 14.0 | 3.10 | 490.6 | 6.87 | -185.9 | 3.20 |
| 08:52 | 69.40 | 13.5 | 3.89 | 486.8 | 6.88 | -185.9 | 2.48 |
| 08:55 | 69.52 | 13.9 | 3.90 | 486.1 | 6.88 | -184.4 | 1.23 |
| 08:58 | 69.54 | 14.5 | 4.13 | 481.7 | 6.89 | -181.6 | 0.82 |
| 09:01 | 69.52 | 14.7 | 4.96 | 488.1 | 6.92 | -179.2 | 0.17 |
| 09:04 | 69.57 | 14.7 | 4.81 | 490.7 | 6.93 | -176.8 | 0.02 |
| 09:07 | 69.57 | 15.0 | ~~5.00~~ 4.89 | 485 | 6.97 | -173.4 | 0.02 |
| 09:10 | 69.55 | 15.0 | 4.91 | 485 | 6.93 | -172.8 | 0.02 |
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**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Joey Lane **Date:** 8/6/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

| | |
|---|---|
| °C: degrees Celsius | S.U.: standard units |
| µmhos/cm: micromhos per centimeter | ft: feet |
| mg/L: milligrams per liter | in: inches |
| mV: millivolt | bgs: below ground surface |
| NTU: nephelometric turbidity units | TOC: top of casing |

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

ANCHOR QEA

Anchor QEA
20 Bellwether Way Suite 102
Bellingham, WA 98225

## Low-Flow Sampling Log

**Well ID:** SMW-12

Project Name: Alcoa Intalco GW monitoring 2025
Project Number:
Project Location: 4050 Mountain View Rd Ferndale WA
Facility ID or Permit # (if applicable):
Sample Collector(s): JL, MB
Well Diameter: 4" in
Screen Interval: 67-77 ft bgs
Well Depth (as constructed): 82 ft bgs
Depth to Water: 68.35 ft TOC
Measuring Point: 72.5 N bgs
Depth of Pump Intake: ft
Pump Used (circle): Peristaltic Bladder Other (describe): GeoSub II
Comments:

Date: 8/5/2025
Weather: 73° Sunny
Sample ID (on COC): SMW-12-20250805
Arrive at Well: 15:20
Start Time: 15:30
Sample Time: 16:07
Leave Well: 16:20
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 83.2 ft at (time): 15:30
Purge Rate: 200 ml/min
Total Volume Purged: 2 gal
Pump Speed: 53

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 15:35 | 68.41 | 14.4 | 9.78 | 498 | 7.07 | 157.6 | 1.02 |
| 15:38 | 68.39 | 14.5 | 8.73 | 492 | 7.08 | 171.4 | 1.98 |
| 15:41 | 68.40 | 14.4 | 9.23 | 504 | 7.05 | 184.8 | 2.84 |
| 15:44 | 68.40 | 14.1 | 9.80 | 521 | 7.02 | 183.7 | 4.81 |
| 15:47 | 68.40 | 13.9 | 9.05 | 526 | 7.01 | 160.9 | 6.21 |
| 15:50 | 68.40 | 14.5 | 9.30 | 535 | 7.00 | 160.0 | 3.13 |
| 15:53 | 68.40 | 14.4 | 9.10 | 539 | 7.00 | 160.0 | 3.90 |
| 15:56 | 68.40 | 14.5 | 8.71 | 537 | 7.00 | 160.0 | 5.41 |
| 15:59 | 68.40 | 14.8 | 8.73 | 535 | 7.01 | 160.1 | 3.47 |
| 16:02 | 68.40 | 14.6 | 8.72 | 536 | 7.01 | 158.9 | 1.64 |
| 16:05 | 68.40 | 14.5 | 8.98 | 534 | 7.01 | 159.2 | 3.46 |
| | | | | | | | |
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**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Joey Lane **Date:** 8/5/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

ANCHOR QEA

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231 Haywood Street
Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW-13

Project Name: Alcoa Intalco GW monitoring 2025
Project Number: 230002-05.06
Project Location: 4050 Mountain View Rd Ferndale
Sample Collector(s): CL, MB
Well Diameter: 4 in
Screen Interval: 66-76 ft bgs
Well Depth (as constructed): 81 ft bgs
Depth to Water: 60.25 ft
Measuring Point: N
Depth of Pump Intake: 73 ft
Pump Used (circle): Peristaltic Bladder Other (describe): GeoSub II
Comments: Wasp nests eradicated, YSI shut itself off at ~~14:03~~ 14:03

Date: 8/7/2025
Weather: Sunny 71°F
Facility ID or Permit # (if applicable): JL
Sample ID (on COC): SolW-13-20250807
Arrive at Well: 13:30
Start Time: 13:37
Sample Time: 14:18
Leave Well: 14:30
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 82.26 ft at (time): 13:34
Purge Rate: 190 mL/min
Total Volume Purged: 1
Pump Speed: 49

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 13:43 | 60.90 | 13.4 | 9.22 | 660 | 6.86 | 188.7 | 3.79 |
| 13:46 | 60.90 | 13.9 | 8.23 | 658 | 6.88 | 192.0 | 6.24 |
| 13:49 | 60.88 | 13.6 | 8.01 | 657 | 6.89 | 192.4 | 1.72 |
| 13:52 | 60.90 | 13.0 | 7.96 | 676 | 6.92 | 192.1 | 3.66 |
| 13:55 | 60.90 | 13.2 | 7.82 | 681 | 6.93 | 191.6 | 1.40 |
| 13:58 | 60.90 | 13.4 | 7.85 | 686 | 6.94 | 191.5 | 0.72 |
| 14:01 | 60.91 | 13.4 | 7.64 | 692 | 6.94 | 115.2 | 0.02 |
| 14:04 | 60.91 | 13.5 | 7.55 | 693 | 6.94 | 129.7 | 0.99 |
| 14:07 | 60.90 | 13.6 | 7.54 | 695 | 6.94 | 150.8 | 0.02 |
| 14:10 | 60.90 | 13.5 | 7.41 | 695 | 6.94 | 161.8 | 0.02 |
| 14:13 | 60.90 | 13.5 | 7.42 | 696 | 6.92 | 170.6 | 1.06 |
| 14:16 | | 13.4 | 7.31 | 696 | 6.92 | 176.7 | 0.02 |
| 14:19 | | | | | | | |
| | | | | | | | |
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**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Joey Lane **Date:** 8/7/2025

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

Anchor QEA
20 Bellwether Way Suite 102
Bellingham, WA 98225

## Low-Flow Sampling Log

**Well ID:** SMW-14

Project Name: Alcoa Intalco GW Monitoring 2025
Project Number:
Project Location: 4050 Mountain View Rd. Ferndale. Facility ID or Permit # (if applicable):
Sample Collector(s): JL, MB
Well Diameter: 4 in
Screen Interval: 162-172 ft bgs
Well Depth (as constructed): 175 ft bgs
Depth to Water: 166.26, 165.79 ft TOC, bgs
Measuring Point: 169.5 bgs
Depth of Pump Intake: JL ft
Pump Used (circle): Peristaltic Bladder Other (describe): Impeller submersible pump
Comments: 169.5' marked on sample tubing includes displacement of pump.

Date: 8/5/2025
Weather: Partly Sunny 70°F
Sample ID (on COC): SMW-14-20250805
Arrive at Well: 11:20
Start Time: 11:45
Sample Time: 12:45
Leave Well: 13:00
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 174.71 ft at (time): 11:40
Purge Rate: 200 mL/min
Total Volume Purged: 1.5 gal
Pump Speed: 236

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| ~~JL 12:16 12:17~~ | ~~166.53~~ | ~~14.3~~ | ~~4.68~~ | ~~0.0032~~ | | | JL |
| 12:27 | 166.54 | 13.6 | 4.85 | 313.4 | 8.09 | 170.5 | 8.64 |
| 12:30 | 166.56 | 13.2 | 4.73 | 312.3 | 8.08 | 171.9 | 6.57 |
| 12:33 | 166.59 | 12.7 | 4.87 | 312.9 | 8.08 | 171.7 | 5.84 |
| 12:36 | 166.59 | 12.4 | 4.71 | 310.8 | 8.00 | 176.9 | 5.24 |
| 12:39 | 166.62 | 12.4 | 4.98 | 312.0 | 8.00 | 176.4 | 5.81 |
| 12:42 | 166.65 | 12.2 | 4.84 | 310.7 | 7.98 | 179.9 | 4.69 |
| 12:45 | | | | | | | |
| 12:48 | | | | | | | |
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**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Joey Lane **Date:** 8/5/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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20 Bellwether Way Suite 102
Bellingham, WA 98225

## Low-Flow Sampling Log

**Well ID:** SMW-15R

Project Name: Alcoa Intalco GW Monitoring 2025
Project Number: 230002-0506
Project Location: 4050 Mountain View Rd Ferndale
Facility ID or Permit # (if applicable): ~~JL~~
Sample Collector(s): JL, MB
Sample ID (on COC): SMW-15R-20250807
Well Diameter: ~~4~~ JL 2 in
Arrive at Well: 09:00
Screen Interval: 115.5 - 125.5 ft bgs
Start Time: 09:13
Well Depth (as constructed): 130 ft bgs
Sample Time: 09:45
Depth to Water: 124.42 ft
Leave Well: 10:10
Measuring Point: N
Well Type: ☒Stick Up ☐Flush Mount
Depth of Pump Intake: 123.2 ft
Tagged Bottom: 128.93 ft at (time): 10:06
Pump Used (circle): Peristaltic Bladder Other (describe): Geosub II
Purge Rate: 150 ml/min
Comments: Field dup collected
Total Volume Purged: 2 gal
Pump Speed: 105

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 09:26 | 125.32 | 21.1 | 7.42 | 210.5 | 7.15 | 187.5 | 35.8 |
| 09:29 | 125.16 | 20.8 | 7.16 | 212.2 | 7.10 | 193.7 | 26.5 |
| 09:32 | 125.06 | 20.0 | 7.25 | 213.2 | 7.08 | 198.5 | 24.4 |
| 09:35 | 124.95 | 19.9 | 7.05 | 211.9 | 7.06 | 202.4 | 33.9 |
| 09:38 | 124.75 | 19.2 | 7.12 | 212.8 | 7.07 | 205.2 | 31.9 |
| 09:41 | 124.75 | 19.0 | 7.01 | 211.0 | 7.04 | 208.1 | 34.4 |
| 09:44 | 124.75 | 19.4 | 6.95 | 211.7 | 7.03 | 207.8 | 33.8 |
| 09:47 | 124.90 | 19.3 | 6.95 | 211.2 | 7.07 | 208.7 | 27.0 |
| 09:50 | 124.78 | 19.4 | 6.83 | 211.0 | 7.06 | 209.6 | 21.3 |
| 09:53 | 124.76 | 19.3 | 6.79 | 211.9 | 7.07 | 209.1 | 15.8 |
| 09:56 | | | | | | | |
| | | DZ | | | | | |
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**Sample Analyst Signature:** [signature]
**Sample Analyst Name:** Joey Lane
**Date:** 8/7/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP*
from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

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Bellingham, WA 98225

## Low-Flow Sampling Log

**Well ID:** SMW-19

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Intalco GW Monitoring 2025 | Date: | 8/7/2025 |
| Project Number: | 230002-05.06 | Weather: | Sunny 68°F |
| Project Location: | 4050 Mountain View Rd | Facility ID or Permit # (if applicable): | — JL |
| Sample Collector(s): | JL, MB | Sample ID (on COC): | SMW-19-20250807 |
| Well Diameter: | 4 in | Arrive at Well: | 11:40 |
| Screen Interval: | 163-173 ft bgs | Start Time: | 11:48 |
| Well Depth (as constructed): | 178 ft bgs | Sample Time: | 12:40 |
| Depth to Water: | 172.28 ft TOC | Leave Well: | 13:05 |
| Measuring Point: | N | Well Type: ☒Stick Up | ☐Flush Mount |
| Depth of Pump Intake: | 172.5 ft bgs | Tagged Bottom: ~~180.5~~ 180.25 ft | at (time): 10:46 |
| Pump Used (circle): | Peristaltic Bladder | Other (describe): Grosub II | Purge Rate: 170 mL/min |
| Comments: | Raising pressure incrementally helped draw up water, Rinse blank collected | | Total Volume Purged: 2 gal |
| | | | Pump Speed: 205 |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 12:03 | 172.86 | 14.5 | 6.58 | 282.6 | 8.46 | 105.4 | 3.21 |
| 12:06 | 172.85 | 14.8 | 4.71 | 285.0 | 8.45 | 87.6 | 1.21 |
| 12:09 | 172.90 | 14.1 | 4.06 | 286.2 | 8.45 | 76.0 | 4.61 |
| 12:12 | 173.00 | 13.9 | 3.76 | 286.0 | 8.47 | 67.6 | 0.02 |
| 12:15 | 172.97 | 14.3 | 3.85 | 286.0 | 8.49 | 59.2 | 0.13 |
| 12:18 | 173.00 | 14.4 | 3.55 | 287.4 | 8.49 | 54.0 | 0.02 |
| 12:21 | 173.02 | 14.1 | 3.07 | 290.9 | 8.50 | 46.6 | 0.02 |
| 12:24 | 173.10 | 13.8 | 3.18 | 291.6 | 8.49 | 40.1 | 0.02 |
| 12:27 | | | | | | | |
| 12:30 | 173.09 | 15.1 | 3.02 | 288.3 | 8.51 | 31.5 | 1.48 |
| 12:33 | 173.09 | 15.2 | 2.97 | 290.4 | 8.50 | 29.9 | 0.02 |
| 12:36 | 173.10 | 15.1 | 2.87 | 293.0 | 8.50 | 28.8 | 0.02 |
| 12:39 | 173.15 | 14.9 | 2.80 | 293.1 | 8.49 | 28.9 | 0.02 |
| 12:42 | | | | | | | |
| | | | | | | | |

**Sample Analyst Signature:** Joey Lane **Sample Analyst Name:** Joey Lane **Date:** 8/7/2025

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP*
from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H$^+$ B-2011
Turbidity: SM 2130 B-2011

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Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW-12

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Tenaleo | Date: | 11/4/25 |
| Project Number: | 230002-05-06 | Weather: | Cloudy |
| Project Location: | 4050 Mountain Rd | Facility ID or Permit # (if applicable): | — no |
| Sample Collector(s): | MB, CW | Sample ID (on COC): | SMW-2-20251104 |
| Well Diameter: | 4 | in | Arrive at Well: 15:00 |
| Screen Interval: | 47 | ft bgs | Start Time: 15:40 |
| Well Depth (as constructed): | 74 | ft bgs | Sample Time: 16:14 |
| Depth to Water: | 63.45 | ft | Leave Well: 16:26 |
| Measuring Point: | N | | Well Type: ☒Stick Up ☐Flush Mount |
| Depth of Pump Intake: | 70.0 | ft | Tagged Bottom: ft at (time): |
| Pump Used (circle): | Peristaltic Bladder | Other (describe): | GeoSub2 |
| Comments: | Depth meter got 'caught', unable to read DTW | | Purge Rate: 115 mL/min<br>Total Volume Purged: ~2 gal<br>Pump Speed: 67 |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 15:46 | — | 12.4 | 9.64 | 463.3 | 8.12 | 73.4 | 35.4 |
| 15:48 | — | 12.7 | 9.64 | 463.2 | 8.02 | 74.4 | 39.6 |
| 15:50 | — | 13.0 | 9.57 | 463.1 | 8.02 | 72.1 | 34.2 |
| 15:52 | — | 13.1 | 9.71 | 463.2 | 8.00 | 71.3 | 33.3 |
| 15:54 | — | 13.2 | 9.56 | 462.2 | 8.02 | 69.0 | 32.9 |
| 15:56 | — | 13.4 | 5.94 | 460.9 | 8.02 | 67.2 | 31.4 |
| 15:58 | — | 13.5 | 4.93 | 460.5 | 8.02 | 66.5 | 31.3 |
| 16:00 | — | 13.6 | 4.51 | 459.5 | 8.02 | 65.4 | 31.4 |
| 16:02 | — | 13.7 | 4.23 | 459.0 | 8.02 | 64.4 | 31.1 |
| 16:04 | — | 13.7 | 4.14 | 458.5 | 8.02 | 64.2 | 30.1 |
| 16:06 | — | 13.7 | 4.13 | 457.5 | 8.01 | 64.1 | 29.2 |
| 16:08 | — | 13.8 | 4.09 | 457.9 | 8.00 | 63.9 | 28.5 |
| 16:10 | — | 13.8 | 4.06 | 456.7 | 8.00 | 63.8 | 28.2 |
| 16:12 | — | 13.8 | 4.02 | 456.4 | 8.00 | 63.4 | 28.1 |
| 16:14 | — | Sampled | | | | | |

**Sample Analyst Signature:** MB

**Sample Analyst Name:** Mikayla Bowen **Date:** 11/4/25

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

ANCHOR QEA

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231 Haywood Street
Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW#3

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Intalco | Date: | 11/5/2025 |
| Project Number: | 230002-05-06 | Weather: | Cloudy, Windy |
| Project Location: | 4050 Mountain Rd | Facility ID or Permit # (if applicable): | N/A |
| Sample Collector(s): | MB, CW | Sample ID (on COC): | SMW-3-20251105 |
| Well Diameter: | 4 in | Arrive at Well: | 12:30 |
| Screen Interval: | 39-54 ft bgs | Start Time: | 12:43 |
| Well Depth (as constructed): | 58 ft bgs | Sample Time: | 13:09 |
| Depth to Water: | 50.85 ft | Leave Well: | 13:20 |
| Measuring Point: | TOC | Well Type: ☒Stick Up | ☐Flush Mount |
| Depth of Pump Intake: | 52 ft | Tagged Bottom: ft | at (time): 12:46 |
| Pump Used (circle): | Peristaltic Bladder | Other (describe): Geosub II | Purge Rate: 240 mL/min |
| Comments: | Pump speed are estimates due to condensation from rain | Total Volume Purged: | ~2gal-2.5 |
| | | Pump Speed: | 56 |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 12:48 | 50.90 | 12.3 | 7.70 | 842 | 7.48 | -20.0 | 4.63 |
| 12:51 | 50.90 | 12.8 | 7.52 | 845 | 7.47 | -13.3 | 2.95 |
| 12:54 | 50.90 | 13.0 | 7.48 | 924 | 7.47 | -10.2 | 3.81 |
| 12:57 | 50.90 | 13.1 | 7.44 | 972 | 7.46 | -6.2 | 3.80 |
| 13:00 | 50.91 | 13.2 | 7.40 | 992 | 7.45 | -1.5 | 4.04 |
| 13:03 | 50.91 | 13.3 | 7.33 | 1040 | 7.46 | 1.4 | 3.91 |
| 13:06 | 50.92 | 13.3 | 7.30 | 1023 | 7.45 | 2.5 | 3.43 |
| 13:09 | Sampled | | | | | | |
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**Sample Analyst Signature:** [signature]

**Sample Analyst Name:** Mikayla Bowles

**Date:** 11/5/25

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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231 Haywood Street
Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW #6

Project Name: Alcon Intalco
Project Number: 230002-05-06
Project Location: 4050 Mantan Rd
Facility ID or Permit # (if applicable): — N/A
Sample Collector(s): MB, CW
Well Diameter: 4
Screen Interval: 53-68
Well Depth (as constructed):
Depth to Water: 60.72
Measuring Point: N
Depth of Pump Intake: 67
Pump Used (circle): Peristaltic Bladder Other (describe): Geo Sub II
Comments: Flow stopped @ 9:40 and switched to Purge Pump Collected SMW-10-20251105

Date: 11/5/25
Weather: Cloudy
Sample ID (on COC): SMW-6-20251105
Arrive at Well: 9:10
Start Time: 9:26
Sample Time: 10:04
Leave Well: 10:15
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 72.0 ft at (time): 9:30
Purge Rate: 150 mL/min
Total Volume Purged:
Pump Speed: low

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 9:32 | 60.92 | 11.2 | 4.44 | 6601 | 7.33 | 111.6 | 11.[illegible] |
| 9:36 | 60.91 | 11.3 | 4.01 | 6530 | 7.30 | 112.6 | 12.21 |
| 9:39 | 60.91 | 11.4 | 4.14 | 6542 | 7.28 | 113.6 | 11.42 |
| 9:43 | 60.91 | 11.9 | 4.54 | 6627 | 7.28 | 115.3 | 9.16 |
| 9:46 | 60.92 | 12.11 | 4.64 | 6627 | 7.29 | 114.2 | 7.38 |
| 9:49 | 60.92 | 12.8 | 4.62 | 6627 | 7.30 | 113.1 | 7.19 |
| 9:52 | 60.93 | 12.8 | 4.56 | 6611 | 7.33 | 112.8 | 8.16 |
| 9:55 | 60.93 | 13.0 | 4.64 | 6618 | 7.33 | 112.3 | 17.77 |
| 9:58 | 60.93 | 13.0 | 4.20 | 6618 | 7.37 | 114.2 | 14.65 |
| 10:01 | 60.93 | 13.0 | 4.20 | 6650 | 7.33 | 114.0 | 10.55 |
| 10:04 | Sampled | | | | | | |
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Flow stopped

**Sample Analyst Signature:** [signature]
**Sample Analyst Name:** Mikayla Bowen
**Date:** 11/5/2025

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

ANCHOR QEA

Anchor QEA of North Carolina, PLLC
231 Haywood Street
Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW [illegible]

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Intake | Date: | 11/5/2025 |
| Project Number: | 230002-05-000 | Weather: | Rain, warm |
| Project Location: | 4050 Mountain Rd | Facility ID or Permit # (if applicable): | — |
| Sample Collector(s): | MB, CW | Sample ID (on COC): | SMW-9-20251105 |
| Well Diameter: | 4 in | Arrive at Well: | 10:25 |
| Screen Interval: | 58-68 ft bgs | Start Time: | 10:45 |
| Well Depth (as constructed): | 73 ft bgs | Sample Time: | 11:30 |
| Depth to Water: | 68.75 ft | Leave Well: | 11:55 |
| Measuring Point: | N | Well Type: ☒Stick Up | ☐Flush Mount |
| Depth of Pump Intake: | 69.5 ft | Tagged Bottom: 74.9 ft | at (time): 10:30 |
| Pump Used (circle): | Peristaltic Bladder | Other (describe): Geosub II | Purge Rate: 190 mL/min |
| Comments: | Strong decay-like odor<br>Flow stopped @ 11:04, restarted flow @ 11:12 | | Total Volume Purged: ·<br>Pump Speed: — |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 10:50 | 68.66 | 11.9 | 3.79 | 556 | 6.97 | -164.9 | 28.8 |
| 10:53 | 68.68 | 12.1 | 3.38 | 544 | 6.90 | -172.1 | 23.3 |
| 10:56 | 68.68 | 12.8 | 3.26 | 539 | 6.91 | -174.0 | 20.4 |
| 10:59 | 68.69 | 13.6 | 3.28 | 532 | 6.93 | -175.7 | 16.46 |
| 11:02 | 68.69 | 14.8 | 4.85 | 512 | 6.97 | -169.6 | 12.06 |
| 11:05 | 68.69 | 14.2 | 5.03 | 496 | 7.02 | -159.2 | 19.5 |
| 11:08 | 68.69 | 14.0 | 5.08 | 491 | 7.03 | -158.5 | 20.4 |
| 11:18 | 68.69 | 13.8 | 5.28 | 486 | 7.04 | -153.0 | 21.0 |
| 11:21 | 68.69 | 13.7 | 5.31 | 486 | 7.04 | -151.0 | 19.52 |
| 11:24 | 68.69 | 13.7 | 5.33 | 484 | 7.04 | -149.3 | 19.67 |
| 11:27 | 68.69 | 13.5 | 5.53 | 482 | 7.04 | -146.5 | 19.27 |
| 11:30 | 68.69 | 13.6 | 5.58 | 481 | 7.04 | -143.8 | 19.42 |
| 11:33 | Sampled | | | | | | |
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Flow stopped

**Sample Analyst Signature:** [signature]

**Sample Analyst Name:** Mikayla Brown **Date:** 11/5/25

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-H+ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW #12

Project Name: Alcoa Intake
Project Number: 230007-05-016
Project Location: 4050 Mt. View Rd
Sample Collector(s): MMB, CW
Well Diameter: 4" in
Screen Interval: 67-77 ft bgs
Well Depth (as constructed): 82 ft bgs
Depth to Water: 68.43 ft
Measuring Point: N
Depth of Pump Intake: 72.5 ft

Date: 11/5/25
Weather: Cloudy + rainy
Facility ID or Permit # (if applicable): — MW
Sample ID (on COC): SMW-12-20251105
Arrive at Well: 1330
Start Time: 13:45
Sample Time: 14:23
Leave Well: 14:45
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: ft at (time): 13:48

Pump Used (circle): Peristaltic Bladder Other (describe): GeoSub II
Purge Rate: 200 mL/min
Total Volume Purged: ~2 gal
Pump Speed: 53

Comments: YSI stopped reading DO, rinsed & restarted w/ readings resumed

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 13:50 | 68.48 | 12.6 | 8.26 | 662 | 7.02 | 43.3 | 2.62 |
| 13:53 | 68.48 | 12.9 | 8.35 | 674 | 7.00 | 51.6 | 2.51 |
| 13:56 | 68.48 | 12.8 | 8.44 | 700 | 6.87 | 60.2 | 2.74 |
| ~~13:59~~ 14:11 | 68.45 | 13.0 | 8.87 | 693 | 6.92 | 70.5 | 4.13 |
| ~~14:03~~ 14:13 | 68.45 | 13.3 | 8.93 | 699 | 6.90 | 73.6 | 3.99 |
| 14:15 | 68.45 | 13.2 | 9.07 | 700 | 6.93 | 75.3 | 3.06 |
| 14:17 | 68.45 | 12.9 | 9.30 | 702 | 6.93 | 83.8 | 3.17 |
| 14:19 | | 12.8 | 9.43 | 700 | 6.93 | 8.31 | 3.14 |
| 14:23 | Sampled | | | | | | |
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YSI Restarted

**Sample Analyst Signature:** [signature]
**Sample Analyst Name:** Morgan Bowen
**Date:** 11/5/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW #13

Project Name: Alcon Intaffo
Project Number: 230002-05.06
Project Location: 4050 Mt. View Rd
Facility ID or Permit # (if applicable): —NC
Sample Collector(s): MB, CW
Sample ID (on COC): SMW-13-
Well Diameter: 4 in
Arrive at Well: 11:30
Screen Interval: 163-173 ft bgs
Start Time: 11:55
Well Depth (as constructed): 178 ft bgs
Sample Time: 12:38
Depth to Water: 59.90 ft
Leave Well: 13.01
Measuring Point: N
Well Type: Stick Up ☐Flush Mount
Depth of Pump Intake: 172.5 ft
Tagged Bottom: ft at (time):
Pump Used (circle): Peristaltic Bladder Other (describe):
Purge Rate: 180 ml/min
Comments:
Total Volume Purged: ~2 gal
Pump Speed: 47

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 11:55 | 60 | 11.2 | 9.37 | 665 | 6.92 | 105.7 | 10.89 |
| 12:00 | 60.35 | 11.5 | 8.92 | 655 | 6.94 | 115.3 | 18.76 |
| 12:05 | 60.40 | 11.5 | 7.44 | 655 | 6.82 | 119.4 | 18.71 |
| 12:10 | 60.45 | 11.5 | 7.20 | 658 | 6.80 | 120.0 | 12.20 |
| 12:15 | 60.45 | 11.2 | 7.03 | 661 | 6.81 | 122.0 | 3.07 |
| 12:20 | 60.55 | 11.4 | 6.55 | 660 | 6.83 | 123.0 | 7.12 |
| 12:25 | 60.61 | 11.7 | 6.00 | 662 | 6.85 | 123.0 | 2.95 |
| 12:30 | 60.61 | 11.9 | 5.69 | 660 | 6.85 | 123.3 | 5.02 |
| 12:35 | 60.59 | 11.9 | 5.19 | 661 | 6.85 | 125.0 | 3.62 |
| 12:30 | 60.55 | 11.9 | 5.11 | 661 | 6.86 | 125.7 | 4.30 |
| 12:33 | 60.50 | 11.9 | 4.95 | 662 | 6.86 | 126.4 | 3.71 |
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**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Mikayla Bowen **Date:** 11/4/25

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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## Low-Flow Sampling Log

**Well ID:** SMW #14

Project Name: Alcoa Tentelco
Project Number: 230002-05-06
Project Location: 4050 Mountain Rd
Sample Collector(s): MB, CW
Well Diameter: 4 in
Screen Interval: 162-172 ft bgs
Well Depth (as constructed): 175 ft bgs
Depth to Water: 166.19 ft
Measuring Point: TOC
Depth of Pump Intake: 169.5 ft
Pump Used (circle): Peristaltic Bladder Other (describe): Grundfos
Comments:

Date: 11/6/25
Weather: Rainy, Windy
Facility ID or Permit # (if applicable): N/A
Sample ID (on COC): SMW-14-20251106
Arrive at Well: 11:00
Start Time: 11:12
Sample Time: 11:51
Leave Well: 12:00
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: 183.30 ft at (time): 11:12
Purge Rate: 200 mL/min
Total Volume Purged: 2 gal
Pump Speed: 166

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 11:13 | 166.51 | 10.7 | 5.43 | 318.8 | 7.98 | 63.2 | 5.72 |
| 11:18 | 166.52 | 10.7 | 7.17 | 318.7 | 7.96 | 65.5 | 2.72 |
| 11:23 | 166.52 | 10.7 | 7.25 | 318.5 | 7.95 | 65.5 | 3.04 |
| 11:28 | 166.53 | 10.8 | 7.44 | 318.7 | 7.94 | 66.7 | 4.20 |
| 11:28 | 166.55 | 10.8 | 7.50 | 318.6 | 7.92 | 67.6 | 4.58 |
| 11:33 | 166.56 | 10.8 | 7.61 | 319.0 | 7.93 | 67.6 | 4.26 |
| 11:34 | 166.56 | 10.9 | 7.91 | 319.2 | 7.97 | 66.5 | 4.52 |
| 11:34 | 166.56 | 10.4 | 8.03 | 319.5 | 7.98 | 65.6 | 4.82 |
| 11:40 | 166.58 | 10.4 | 8.12 | 319.6 | 8.01 | 65.3 | 3.39 |
| 11:43 | 166.59 | 10.9 | 8.20 | 319.4 | 7.99 | 65.3 | 3.97 |
| 11:48 | 166.62 | 10.9 | 7.71 | 319.4 | 8.00 | 65.5 | 3.66 |
| 11:49 | | 10.6 | 7.66 | 319.2 | 8.00 | 65.5 | 3.84 |
| 11:51 | Sampled | — | | | | | |
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**Sample Analyst Signature:** [signature]
**Sample Analyst Name:** Mikeyla Bowen
**Date:** 11/6/25

**Notes:**
1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)
2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date
3. Samples are analyzed immediately upon collection.
4. NC Field Laboratory Certificate Number 5445
5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**
°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**
Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW #ISR

Project Name: Alcoa Intalco
Project Number: 230002-0506
Project Location: 4050 Mt. View Rd
Sample Collector(s): MB, CW
Well Diameter: 2" in
Screen Interval: 115.2 ft bgs
Well Depth (as constructed): 130 ft bgs
Depth to Water: 124.53 ft
Measuring Point: N
Depth of Pump Intake: 123.2 ft
Pump Used (circle): Peristaltic Bladder Other (describe): Gilson II
Comments:

Date: 11/6/25
Weather: Cloudy
Facility ID or Permit # (if applicable): —
Sample ID (on COC): SMW-ISR-20251106
Arrive at Well: 8:55
Start Time: 9:15
Sample Time: 10:35
Leave Well: 11:00
Well Type: ☒Stick Up ☐Flush Mount
Tagged Bottom: ft at (time): 9:52
Purge Rate: 180 mL/min
Total Volume Purged: 2 gal
Pump Speed: 1 ol

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| 9:59 | 124.95 | 17.9 | 6.03 | 200.4 | 7.08 | 41.9 | 51.6 |
| 10:02 | 124.95 | 18.3 | 6.37 | 200.1 | 7.05 | 50.1 | 38.5 |
| 10:05 | 124.91 | 18.2 | 6.54 | 201.2 | 7.04 | 55.4 | 31.6 |
| 10:08 | 124.92 | 18.2 | 6.59 | 207.9 | 7.04 | 58.6 | 18.29 |
| 10:11 | 124.91 | 18.2 | 6.58 | 202.0 | 7.03 | 61.0 | 8.91 |
| 10:14 | 124.91 | 18.5 | 6.63 | 202.0 | 7.03 | 64.5 | 6.92 |
| 10:18 | 124.91 | 18.8 | 6.59 | 202.0 | 7.03 | 66.3 | 4.36 |
| 10:21 | 124.91 | 18.9 | 6.55 | 202.2 | 7.03 | 67.9 | 3.98 |
| 10:24 | 124.91 | 18.9 | 6.55 | 203.2 | 7.03 | 68.9 | 3.85 |
| 10:27 | 124.91 | 19.1 | 6.50 | 202.9 | 7.03 | 69.9 | 2.62 |
| 10:30 | 124.91 | 19.2 | 6.46 | 203.2 | 7.03 | 71.3 | 2.38 |
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**Sample Analyst Signature:** [signature]

**Sample Analyst Name:** Mikayla Bowen

**Date:** 11/6/25

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
mV: millivolt
nephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

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Asheville, North Carolina 28801

## Low-Flow Sampling Log

**Well ID:** SMW #19

| | | | |
|---|---|---|---|
| Project Name: | Alcoa Tapoco | Date: | 11/6/2025 |
| Project Number: | 230602-05-06 | Weather: | Cloudy |
| Project Location: | 4050 Mountain Rd | Facility ID or Permit # (if applicable): | — NA |
| Sample Collector(s): | MB, CW | Sample ID (on COC): | — MW |
| Well Diameter: | 8 in | Arrive at Well: | ~~DTW~~ 12:20 |
| Screen Interval: | 173-163 ft bgs | Start Time: | ~~13:15~~ 12:50 |
| Well Depth (as constructed): | 178 ft bgs | Sample Time: | — MW |
| Depth to Water: | 172.4 ft | Leave Well: | 13:15 |
| Measuring Point: | N | Well Type: | ☒Stick Up ☐Flush Mount |
| Depth of Pump Intake: | 172.50 ft | Tagged Bottom: | 180.85 ft at (time): |
| Pump Used (circle): | Peristaltic Bladder Other (describe): | GeoSub 2 | Purge Rate: — |
| Comments: | Depth to well DTW too low to screen to sufficiently collect via pump, no water infed to continue purging. ~~DTW~~ N/A Pump @ 173 | | Total Volume Purged: — Pump Speed: — |

| Time | DTW (feet) | Temperature (°C) | Dissolved Oxygen (mg/L) | Specific Conductivity (µmhos/cm) | pH (S.U.) *report to 0.1 S.U.* | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
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**Sample Analyst Signature:** [signature] **Sample Analyst Name:** Morgan Bivens **Date:** 11/6/25

**Notes:**

1: Stabilization (3 successive readings, 3 minutes apart): *within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP* from EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, April 1996 (Rev 2017)

2. Documentation errors are to be crossed out with a single line, so the original text is still legible, followed by the staff members initials and date

3. Samples are analyzed immediately upon collection.

4. NC Field Laboratory Certificate Number 5445

5. 1 µmho/cm = 1 µS/cm

**Abbreviations:**

°C: degrees Celsius
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
millivolt
ephelometric turbidity units
S.U.: standard units
ft: feet
in: inches
bgs: below ground surface
TOC: top of casing

**Method Reference:**

Temperature: SM 2550 B-2010
Specific conductivity: EPA Method 120.1, Rev. 1982
DO: SM 4500 O G-2011
pH: SM 4500-$H^+$ B-2011
Turbidity: SM 2130 B-2011

# Appendix B
# Laboratory Reports

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

Monday, May 12, 2025

Ali Judkins
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A5B1488 - Alcoa - Intalco - 23002-05-06

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5B1488, which was received by the laboratory on 2/22/2025 at 9:00:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information |
|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. |
| (See Cooler Receipt Form for details) |
| Default Cooler 3.9 degC |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

*The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.*

Darwin Thomas, Business Development Director

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5B1488 - 05 12 25 1406** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| SMW#6-20250218 | A5B1488-01 | GW | 02/18/25 13:31 | 02/22/25 09:00 |
| SMW#13-20250218 | A5B1488-02 | GW | 02/18/25 12:00 | 02/22/25 09:00 |
| SMW#12-20250218 | A5B1488-03 | GW | 02/18/25 14:49 | 02/22/25 09:00 |
| SMW#2-20250220 | A5B1488-04 | GW | 02/20/25 10:27 | 02/22/25 09:00 |
| SMW#3-20250220 | A5B1488-05 | GW | 02/20/25 11:57 | 02/22/25 09:00 |
| SMW#8-20250220 | A5B1488-06 | GW | 02/20/25 13:43 | 02/22/25 09:00 |
| SMW#9-20250221 | A5B1488-07 | GW | 02/21/25 13:54 | 02/22/25 09:00 |

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Darwin Thomas, Business Development Director

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**503-718-2323**
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## ANALYTICAL CASE NARRATIVE

**A5B1488** **Apex Laboratories**

Amended Report Revision 1: This report supersedes all previous reports.

Sample ID Changes-

The final report has been amended to remove spaces in all of the Sample IDs.

Darrell Auvil
Client Services Manager
4/8/2025

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Darwin Thomas, Business Development Director

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5B1488 - 05 12 25 1406** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW#6-20250218 (A5B1488-01)** | | | | **Matrix: GW** | | | | |
| Batch: 25C0620 | | | | | | | | |
| **Aluminum** | **0.555** | 0.0250 | 0.0500 | mg/L | 1 | 03/16/25 00:15 | EPA 6020B | |
| **Potassium** | **2.31** | 0.0500 | 0.100 | mg/L | 1 | 03/16/25 00:15 | EPA 6020B | |
| **Sodium** | **19.2** | 0.0500 | 0.100 | mg/L | 1 | 03/16/25 00:15 | EPA 6020B | |
| **SMW#6-20250218 (A5B1488-01RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25C0620 | | | | | | | | |
| **Calcium** | **71.2** | 3.00 | 6.00 | mg/L | 10 | 03/17/25 23:00 | EPA 6020B | |
| **SMW#13-20250218 (A5B1488-02)** | | | | **Matrix: GW** | | | | |
| Batch: 25C0620 | | | | | | | | |
| **Aluminum** | **0.402** | 0.0250 | 0.0500 | mg/L | 1 | 03/16/25 00:20 | EPA 6020B | |
| **Potassium** | **3.53** | 0.0500 | 0.100 | mg/L | 1 | 03/16/25 00:20 | EPA 6020B | |
| **Sodium** | **19.9** | 0.0500 | 0.100 | mg/L | 1 | 03/16/25 00:20 | EPA 6020B | |
| **SMW#13-20250218 (A5B1488-02RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25C0620 | | | | | | | | |
| **Calcium** | **83.4** | 3.00 | 6.00 | mg/L | 10 | 03/17/25 23:05 | EPA 6020B | |
| **SMW#2-20250220 (A5B1488-04)** | | | | **Matrix: GW** | | | | |
| Batch: 25C0620 | | | | | | | | |
| **Aluminum** | **0.183** | 0.0250 | 0.0500 | mg/L | 1 | 03/16/25 00:26 | EPA 6020B | |
| **Calcium** | **48.1** | 0.300 | 0.600 | mg/L | 1 | 03/16/25 00:26 | EPA 6020B | |
| **Potassium** | **3.72** | 0.0500 | 0.100 | mg/L | 1 | 03/16/25 00:26 | EPA 6020B | |
| **Sodium** | **16.1** | 0.0500 | 0.100 | mg/L | 1 | 03/16/25 00:26 | EPA 6020B | |
| **SMW#3-20250220 (A5B1488-05)** | | | | **Matrix: GW** | | | | |
| Batch: 25C0620 | | | | | | | | |
| **Aluminum** | **0.0576** | 0.0250 | 0.0500 | mg/L | 1 | 03/16/25 00:42 | EPA 6020B | |
| **Potassium** | **4.87** | 0.0500 | 0.100 | mg/L | 1 | 03/16/25 00:42 | EPA 6020B | |
| **SMW#3-20250220 (A5B1488-05RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25C0620 | | | | | | | | |
| **Calcium** | **123** | 3.00 | 6.00 | mg/L | 10 | 03/17/25 23:10 | EPA 6020B | |
| **Sodium** | **67.0** | 1.00 | 2.00 | mg/L | 10 | 03/17/25 23:10 | EPA 6020B | |

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**ANALYTICAL REPORT**

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5B1488 - 05 12 25 1406** |

## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW#6-20250218 (A5B1488-01)** | | | | **Matrix: GW** | | | | |
| Batch: 25B0797 | | | | | | | | |
| **Chloride** | **23.2** | 0.500 | 1.00 | mg/L | 1 | 02/26/25 03:44 | EPA 300.0 | |
| **Fluoride** | **2.07** | 0.500 | 1.00 | mg/L | 1 | 02/26/25 03:44 | EPA 300.0 | |
| **Sulfate** | **28.0** | 0.500 | 1.00 | mg/L | 1 | 02/26/25 03:44 | EPA 300.0 | |
| **SMW#13-20250218 (A5B1488-02)** | | | | **Matrix: GW** | | | | |
| Batch: 25B0797 | | | | | | | | |
| **Chloride** | **8.19** | 0.500 | 1.00 | mg/L | 1 | 02/26/25 04:05 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 02/26/25 04:05 | EPA 300.0 | |
| **Sulfate** | **21.4** | 0.500 | 1.00 | mg/L | 1 | 02/26/25 04:05 | EPA 300.0 | |
| **SMW#2-20250220 (A5B1488-04RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25B0854 | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 02/26/25 23:49 | EPA 300.0 | |
| **Sulfate** | **12.9** | 0.500 | 1.00 | mg/L | 1 | 02/26/25 23:49 | EPA 300.0 | |
| **SMW#2-20250220 (A5B1488-04RE2)** | | | | **Matrix: GW** | | | | |
| Batch: 25B0854 | | | | | | | | |
| **Chloride** | **79.8** | 2.50 | 5.00 | mg/L | 5 | 02/26/25 22:22 | EPA 300.0 | |
| **SMW#3-20250220 (A5B1488-05RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25B0854 | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 02/27/25 00:10 | EPA 300.0 | |
| **Sulfate** | **15.5** | 0.500 | 1.00 | mg/L | 1 | 02/27/25 00:10 | EPA 300.0 | |
| **SMW#3-20250220 (A5B1488-05RE2)** | | | | **Matrix: GW** | | | | |
| Batch: 25B0854 | | | | | | | | |
| **Chloride** | **319** | 5.00 | 10.0 | mg/L | 10 | 02/26/25 22:44 | EPA 300.0 | |

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## ANALYTICAL SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW#6-20250218 (A5B1488-01)** | | | | **Matrix: GW** | | **Batch: 25B0879** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 02/27/25 13:01 | D7511-12 | |
| **SMW#13-20250218 (A5B1488-02)** | | | | **Matrix: GW** | | **Batch: 25B0879** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 02/27/25 13:03 | D7511-12 | |
| **SMW#2-20250220 (A5B1488-04)** | | | | **Matrix: GW** | | **Batch: 25B0879** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 02/27/25 13:07 | D7511-12 | |
| **SMW#3-20250220 (A5B1488-05)** | | | | **Matrix: GW** | | **Batch: 25B0879** | | |
| **Total Cyanide** | **0.00667** | 0.00250 | 0.00500 | mg/L | 1 | 02/27/25 13:09 | D7511-12 | |

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## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW#6-20250218 (A5B1488-01)** | | | | **Matrix: GW** | | | | |
| Batch: 25B0748 | | | | | | | | |
| **pH** | **7.8** | --- | | pH Units | 1 | 02/25/25 17:05 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **19.7** | --- | | pH Units | 1 | 02/25/25 17:05 | SM 4500-H+ B | **H-12** |
| **SMW#13-20250218 (A5B1488-02)** | | | | **Matrix: GW** | | | | |
| Batch: 25B0748 | | | | | | | | |
| **pH** | **7.3** | --- | | pH Units | 1 | 02/25/25 17:08 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **19.4** | --- | | pH Units | 1 | 02/25/25 17:08 | SM 4500-H+ B | **H-12** |
| **SMW#2-20250220 (A5B1488-04)** | | | | **Matrix: GW** | | | | |
| Batch: 25B0748 | | | | | | | | |
| **pH** | **8.2** | --- | | pH Units | 1 | 02/25/25 17:13 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **20.1** | --- | | pH Units | 1 | 02/25/25 17:13 | SM 4500-H+ B | **H-12** |
| **SMW#3-20250220 (A5B1488-05)** | | | | **Matrix: GW** | | | | |
| Batch: 25B0748 | | | | | | | | |
| **pH** | **8.1** | --- | | pH Units | 1 | 02/25/25 17:16 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **19.1** | --- | | pH Units | 1 | 02/25/25 17:16 | SM 4500-H+ B | **H-12** |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25C0620 - EPA 3015A** | | | | | | | | | Water | | | |
| **Blank (25C0620-BLK1)** | | | Prepared: 03/15/25 15:51 | | Analyzed: 03/15/25 23:48 | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Potassium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sodium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25C0620-BS1)** | | | Prepared: 03/15/25 15:51 | | Analyzed: 03/15/25 23:53 | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 5.70 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | --- | 103 | 80-120% | --- | --- | |
| Calcium | 5.60 | 0.300 | 0.600 | mg/L | 1 | 5.56 | --- | 101 | 80-120% | --- | --- | |
| Potassium | 5.87 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 106 | 80-120% | --- | --- | |
| Sodium | 5.90 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 106 | 80-120% | --- | --- | |
| **Matrix Spike (25C0620-MS1)** | | | Prepared: 03/15/25 15:51 | | Analyzed: 03/16/25 01:31 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1639-16) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 5.79 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | 0.234 | 100 | 75-125% | --- | --- | |
| Calcium | 18.8 | 0.300 | 0.600 | mg/L | 1 | 5.56 | 13.4 | 96 | 75-125% | --- | --- | |
| Potassium | 6.69 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 1.08 | 101 | 75-125% | --- | --- | |
| Sodium | 13.2 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 7.77 | 98 | 75-125% | --- | --- | |
| **Matrix Spike Dup (25C0620-MSD1)** | | | Prepared: 03/15/25 15:51 | | Analyzed: 03/16/25 01:48 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1639-16) | | | | | | | | | | | | |
| Aluminum | 5.99 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | 0.234 | 104 | 75-125% | 3 | 20% | |
| Calcium | 19.3 | 0.300 | 0.600 | mg/L | 1 | 5.56 | 13.4 | 105 | 75-125% | 3 | 20% | |
| Potassium | 6.88 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 1.08 | 104 | 75-125% | 3 | 20% | |
| Sodium | 13.6 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 7.77 | 105 | 75-125% | 3 | 20% | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25B0797 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Blank (25B0797-BLK1)** | | | Prepared: 02/25/25 17:04 | | Analyzed: 02/26/25 01:34 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25B0797-BS1)** | | | Prepared: 02/25/25 17:04 | | Analyzed: 02/26/25 01:56 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 7.96 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 100 | 90-110% | --- | --- | |
| Fluoride | 8.49 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 106 | 90-110% | --- | --- | |
| Sulfate | 8.11 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 101 | 90-110% | --- | --- | |
| **Duplicate (25B0797-DUP1)** | | | Prepared: 02/25/25 17:04 | | Analyzed: 02/26/25 04:27 | | | | | | | |
| **QC Source Sample: SMW#13-20250218 (A5B1488-02)** | | | | | | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | **8.18** | 0.500 | 1.00 | mg/L | 1 | --- | 8.19 | --- | --- | 0.2 | 10% | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | ND | --- | --- | --- | 10% | |
| Sulfate | **21.3** | 0.500 | 1.00 | mg/L | 1 | --- | 21.4 | --- | --- | 0.09 | 10% | |
| **Matrix Spike (25B0797-MS1)** | | | Prepared: 02/25/25 17:04 | | Analyzed: 02/26/25 04:48 | | | | | | | |
| **QC Source Sample: SMW#13-20250218 (A5B1488-02)** | | | | | | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 18.7 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 8.19 | 105 | 90-113% | --- | --- | |
| Fluoride | 10.9 | 0.625 | 1.25 | mg/L | 1 | 10.0 | ND | 109 | 88-120% | --- | --- | |
| Sulfate | 31.5 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 21.4 | 101 | 88-115% | --- | --- | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25B0854 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Blank (25B0854-BLK1)** | | | Prepared: 02/26/25 18:42 | | Analyzed: 02/26/25 19:51 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25B0854-BS1)** | | | Prepared: 02/26/25 18:42 | | Analyzed: 02/26/25 20:13 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 7.92 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 99 | 90-110% | --- | --- | |
| Fluoride | 8.47 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 106 | 90-110% | --- | --- | |
| Sulfate | 7.89 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 99 | 90-110% | --- | --- | |
| **Duplicate (25B0854-DUP1)** | | | Prepared: 02/26/25 18:42 | | Analyzed: 02/26/25 20:56 | | | | | | | |
| **QC Source Sample: Non-SDG (A5B1668-01)** | | | | | | | | | | | | |
| Chloride | **111** | 0.500 | 1.00 | mg/L | 1 | --- | 112 | --- | --- | 0.06 | 10% | E |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | ND | --- | --- | --- | 10% | |
| Sulfate | **23.2** | 0.500 | 1.00 | mg/L | 1 | --- | 23.0 | --- | --- | 0.7 | 10% | |
| **Matrix Spike (25B0854-MS1)** | | | Prepared: 02/26/25 18:42 | | Analyzed: 02/26/25 21:18 | | | | | | | |
| **QC Source Sample: Non-SDG (A5B1668-01)** | | | | | | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 124 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 112 | **128** | **90-113%** | --- | --- | E, Q-01 |
| Fluoride | 10.6 | 0.625 | 1.25 | mg/L | 1 | 10.0 | ND | 106 | 88-120% | --- | --- | |
| Sulfate | 33.1 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 23.0 | 101 | 88-115% | --- | --- | |

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 125 | Project Number: 23002-05-06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5B1488 - 05 12 25 1406 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25B0879 - ASTM D7511-12 (W)** | | | | | | | Water | | | | | |
| **Blank (25B0879-BLK1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:27 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25B0879-BS1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:29 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0242 | 0.00250 | 0.00500 | mg/L | 1 | 0.0250 | --- | 97 | 84-116% | --- | --- | |
| **Matrix Spike (25B0879-MS1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:35 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1657-01) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0172 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 68 | 64-136% | --- | --- | |
| **Matrix Spike (25B0879-MS2)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 13:57 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1432-02RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0343 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.0126 | 86 | 64-136% | --- | --- | |
| **Matrix Spike Dup (25B0879-MSD1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:37 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1657-01) | | | | | | | | | | | | |
| Total Cyanide | 0.0170 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 67 | 64-136% | 1 | 47% | |
| **Matrix Spike Dup (25B0879-MSD2)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 14:01 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1432-02RE1) | | | | | | | | | | | | |
| Total Cyanide | 0.0343 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.0126 | 87 | 64-136% | 0.2 | 47% | |

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5B1488 - 05 12 25 1406** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25B0748 - Method Prep: Aq** | | | | | | | | **Water** | | | | |
| **Duplicate (25B0748-DUP1)** | | | Prepared: 02/25/25 08:20 | Analyzed: 02/25/25 17:07 | | | | | | | | |
| **QC Source Sample: SMW#6-20250218 (A5B1488-01)** | | | | | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | **7.7** | --- | | pH Units | 1 | --- | 7.8 | --- | --- | 1 | 2% | H-12 |
| pH Temperature (deg C) | **19.7** | --- | | pH Units | 1 | --- | 19.7 | --- | --- | 0 | 30% | H-12 |
| **Reference (25B0748-SRM1)** | | | Prepared: 02/25/25 08:20 | Analyzed: 02/25/25 09:23 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 101 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 20.4 | --- | | pH Units | 1 | 20.0 | | 102 | 50-200% | --- | --- | |
| **Reference (25B0748-SRM2)** | | | Prepared: 02/25/25 08:20 | Analyzed: 02/25/25 09:24 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 7.9 | --- | | pH Units | 1 | 8.00 | | 99 | 99-101% | --- | --- | |
| pH Temperature (deg C) | 20.3 | --- | | pH Units | 1 | 20.0 | | 102 | 50-200% | --- | --- | |
| **Reference (25B0748-SRM3)** | | | Prepared: 02/25/25 08:20 | Analyzed: 02/25/25 17:03 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 101 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 19.9 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |
| **Reference (25B0748-SRM4)** | | | Prepared: 02/25/25 08:20 | Analyzed: 02/25/25 17:34 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 8.0 | --- | | pH Units | 1 | 8.00 | | 99 | 99-101% | --- | --- | |
| pH Temperature (deg C) | 19.7 | --- | | pH Units | 1 | 20.0 | | 98 | 50-200% | --- | --- | |

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**ANALYTICAL REPORT**

AMENDED REPORT

**Anchor QEA, LLC**
**6720 SW Macadam Ave. Suite 125**
**Portland, OR 97219**

Project: **Alcoa - Intalco**
Project Number: **23002-05-06**
Project Manager: **Ali Judkins**

**Report ID:**
**A5B1488 - 05 12 25 1406**

## SAMPLE PREPARATION INFORMATION

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25C0620 | | | | | | | |
| A5B1488-01 | GW | EPA 6020B | 02/18/25 13:31 | 03/15/25 15:51 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5B1488-01RE1 | GW | EPA 6020B | 02/18/25 13:31 | 03/15/25 15:51 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5B1488-02 | GW | EPA 6020B | 02/18/25 12:00 | 03/15/25 15:51 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5B1488-02RE1 | GW | EPA 6020B | 02/18/25 12:00 | 03/15/25 15:51 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5B1488-04 | GW | EPA 6020B | 02/20/25 10:27 | 03/15/25 15:51 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5B1488-05 | GW | EPA 6020B | 02/20/25 11:57 | 03/15/25 15:51 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5B1488-05RE1 | GW | EPA 6020B | 02/20/25 11:57 | 03/15/25 15:51 | 45mL/50mL | 45mL/50mL | 1.00 |

### Anions by Ion Chromatography

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25B0797 | | | | | | | |
| A5B1488-01 | GW | EPA 300.0 | 02/18/25 13:31 | 02/25/25 17:04 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5B1488-02 | GW | EPA 300.0 | 02/18/25 12:00 | 02/25/25 17:04 | 5mL/5mL | 5mL/5mL | 1.00 |
| Batch: 25B0854 | | | | | | | |
| A5B1488-04RE1 | GW | EPA 300.0 | 02/20/25 10:27 | 02/26/25 18:42 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5B1488-04RE2 | GW | EPA 300.0 | 02/20/25 10:27 | 02/26/25 18:42 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5B1488-05RE1 | GW | EPA 300.0 | 02/20/25 11:57 | 02/26/25 18:42 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5B1488-05RE2 | GW | EPA 300.0 | 02/20/25 11:57 | 02/26/25 18:42 | 5mL/5mL | 5mL/5mL | 1.00 |

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Prep: ASTM D7511-12 (W)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25B0879 | | | | | | | |
| A5B1488-01 | GW | D7511-12 | 02/18/25 13:31 | 02/27/25 10:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5B1488-02 | GW | D7511-12 | 02/18/25 12:00 | 02/27/25 10:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5B1488-04 | GW | D7511-12 | 02/20/25 10:27 | 02/27/25 10:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5B1488-05 | GW | D7511-12 | 02/20/25 11:57 | 02/27/25 10:17 | 10mL/10mL | 10mL/10mL | 1.00 |

### Conventional Chemistry Parameters

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25B0748 | | | | | | | |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

**Anchor QEA, LLC**
**6720 SW Macadam Ave. Suite 125**
**Portland, OR 97219**

Project: **Alcoa - Intalco**
Project Number: **23002-05-06**
Project Manager: **Ali Judkins**

**Report ID:**
**A5B1488 - 05 12 25 1406**

## SAMPLE PREPARATION INFORMATION

### Conventional Chemistry Parameters

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| A5B1488-01 | GW | SM 4500-H+ B | 02/18/25 13:31 | 02/25/25 16:02 | 20mL/20mL | 20mL/20mL | NA |
| A5B1488-02 | GW | SM 4500-H+ B | 02/18/25 12:00 | 02/25/25 16:02 | 20mL/20mL | 20mL/20mL | NA |
| A5B1488-04 | GW | SM 4500-H+ B | 02/20/25 10:27 | 02/25/25 16:02 | 20mL/20mL | 20mL/20mL | NA |
| A5B1488-05 | GW | SM 4500-H+ B | 02/20/25 11:57 | 02/25/25 16:02 | 20mL/20mL | 20mL/20mL | NA |

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## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

| | |
|---|---|
| **E** | Estimated Value. The result is above the calibration range of the instrument. |
| **H-12** | Sample Analysis or Filtration was performed >15 minutes after sample collection. Consult regulator or permit manager to determine the usability of data for intended use. |
| **Q-01** | Spike recovery and/or RPD is outside acceptance limits. |

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## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting and Detection Limits: Default Limits**

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

**Benzofluoranthene Isomer Reporting:**

Due to coelutions present on the analytical column, the results reported for Benzo(b+j)fluoranthene(s) represent the concentraton of both the Benzo(b)fluoranthene and Benzo(j)fluoranthene isomers. Calibration, validation and accreditation are based on the Benzo(b)fluoranthene isomer.

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**Decanted Samples:**

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

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## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories



Darwin Thomas, Business Development Director

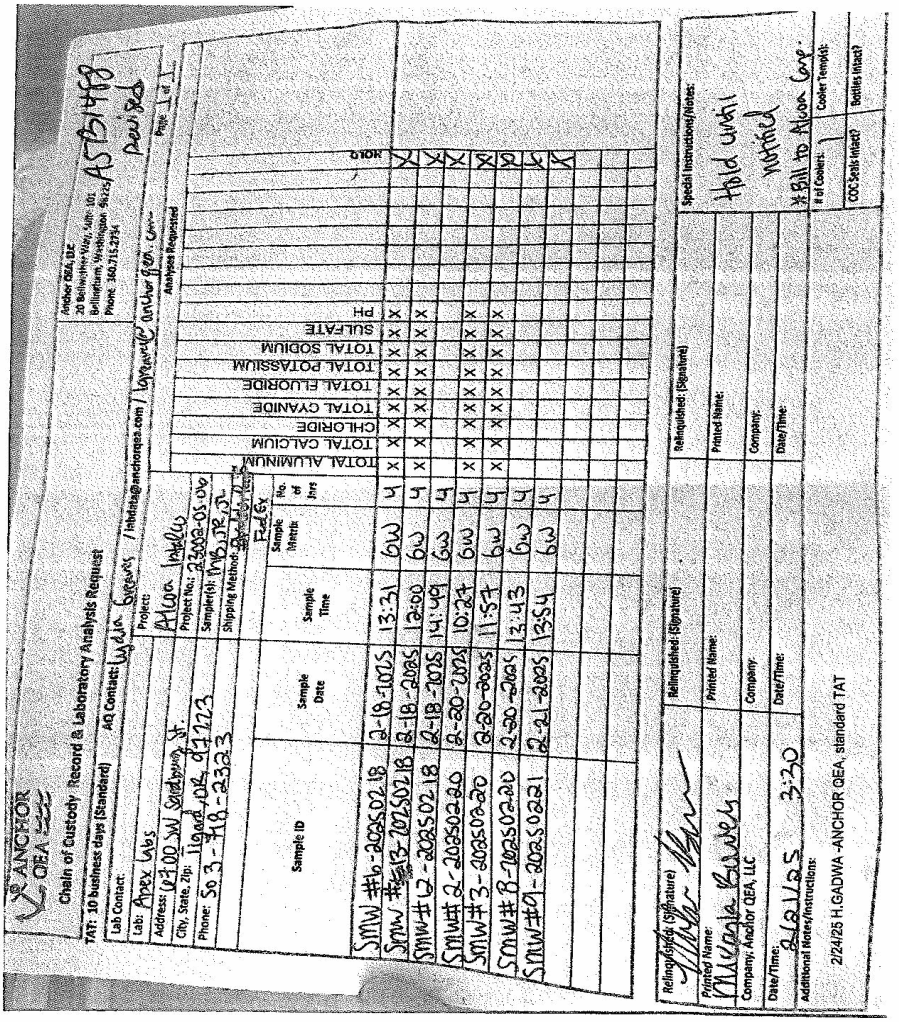
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**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

# ANALYTICAL REPORT

AMENDED REPORT

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5B1488 - 05 12 25 1406** |




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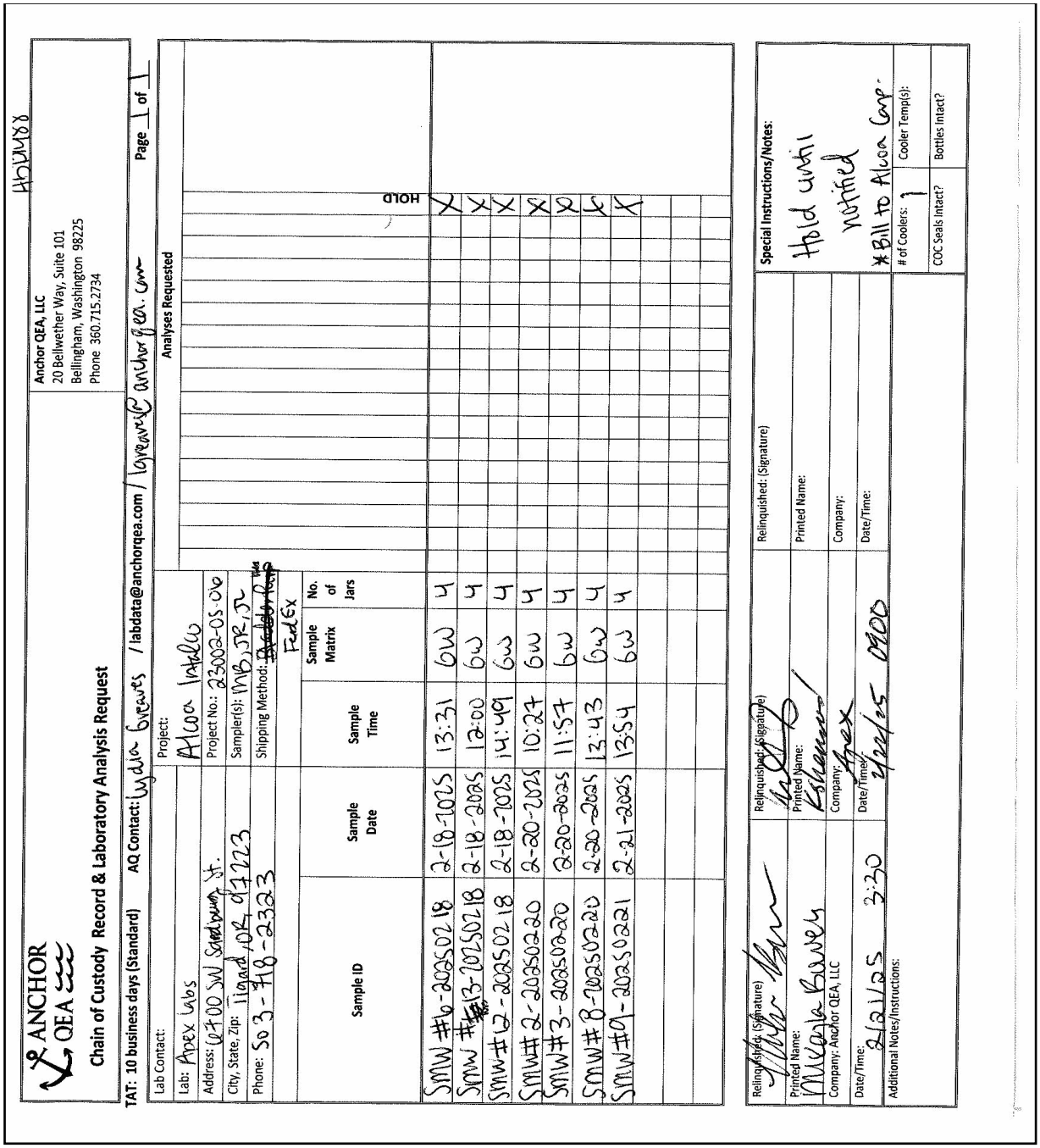
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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5B1488 - 05 12 25 1406** |



ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC
20 Bellwether Way, Suite 101
Bellingham, Washington 98225
Phone 360.715.2734

TAT: 10 business days (Standard) AQ Contact: Lydia Graves / labdata@anchorqea.com / lgraves@anchorqea.com Page 1 of 1

Lab Contact:
Lab: Apex Labs
Address: 6700 SW Sandburg St.
City, State, Zip: Tigard, OR 97223
Phone: 503-718-2323

Project: Alcoa Intalco
Project No.: 23002-05-06
Sampler(s): MB, JR, JC
Shipping Method: ~~Pacific Net~~ FedEx

Analyses Requested: HOLD

| Sample ID | Sample Date | Sample Time | Sample Matrix | No. of Jars | HOLD |
|---|---|---|---|---|---|
| SMW #6-20250218 | 2-18-2025 | 13:31 | GW | 4 | X |
| SMW #13-20250218 | 2-18-2025 | 12:00 | GW | 4 | X |
| SMW #2-20250218 | 2-18-2025 | 14:09 | GW | 4 | X |
| SMW# 2-20250220 | 2-20-2025 | 10:27 | GW | 4 | X |
| SMW#3-20250220 | 2-20-2025 | 11:57 | GW | 4 | X |
| SMW#8-20250220 | 2-20-2025 | 13:43 | GW | 4 | X |
| SMW#9-20250221 | 2-21-2025 | 13:54 | GW | 4 | X |

Relinquished: (Signature) — Printed Name: Miranda Burney — Company: Anchor QEA, LLC — Date/Time: 2/21/25 3:20

Relinquished: (Signature) — Printed Name: — Company: Apex — Date/Time: 2/21/25 0800

Relinquished: (Signature) — Printed Name: — Company: — Date/Time:

Special Instructions/Notes: Hold until notified *Bill to Alcoa Corp.

# of Coolers: 1 — Cooler Temp(s):

COC Seals Intact? — Bottles Intact?

Additional Notes/Instructions:

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## APEX LABS COOLER RECEIPT FORM

**Client:** Anchor Element WO#: A5B1488

**Project/Project #:** Alcoa Intalco / 23002-05.06

**Delivery Info:** 2nd 2/22/25

Date/time received: 2/22/25 @ 900 By: KMS

Delivered by: Apex__Client X ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes _____ No X

**Cooler Inspection** Date/time inspected: 2/22/25 @ 900 By: KMS

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 3.9 | | | | | | |
| Custody seals? (Y/N) | N | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | Y | | | | | | |
| Ice type: (Gel/Real/Other) | Real | | | | | | |
| Condition (In/Out): | In | | | | | | |

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

**Sample Inspection:** Date/time inspected: 2/24/25 @ 1120 By: AMW

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes ___ No X Comments: SMW#3 cont. Tread 1156

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments _____

Water samples: pH checked: Yes X No ___ NA ___ pH appropriate? Yes ___ No X NA ___ pH ID: AZ4A422

Comments: pH=9 for SMW#13, SMW#2, and SMW#9 for the NaOH brown poly

Labeled by: AMW Witness: KN Cooler Inspected by: AMW

Form Y-003 R-02

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**ANALYTICAL REPORT**

AMENDED REPORT

Thursday, May 29, 2025

Lydia Greaves
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A5B1749 - Alcoa - Intalco - 23002-05-06

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5B1749, which was received by the laboratory on 2/27/2025 at 11:12:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information |
|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. |
| (See Cooler Receipt Form for details) |
| Default Cooler 0.9 degC |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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Darwin Thomas, Business Development Director

**Apex Laboratories, LLC**
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**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1626** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| SMW#19-20250225 | A5B1749-01 | Water | 02/25/25 14:10 | 02/27/25 11:12 |
| SMW#15R-20250225 | A5B1749-02 | Water | 02/25/25 10:30 | 02/27/25 11:12 |
| SMW#115R-20250225 | A5B1749-03 | Water | 02/25/25 10:30 | 02/27/25 11:12 |
| SMW#14-20250225 | A5B1749-04 | Water | 02/25/25 10:44 | 02/27/25 11:12 |

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**ANALYTICAL REPORT**

AMENDED REPORT

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1626** |

## ANALYTICAL CASE NARRATIVE

**A5B1749** **Apex Laboratories**

Amended Report Revision 1: This report supersedes all previous reports.

Split Reporting-

At client request, the final report has been amended to be split into two reports. Sample; "RB-20250226' " will be reported as one report and the remaining samples as the second report.

Darrell Auvil
Apex Labs
5/23/2025

Apex Laboratories



Darwin Thomas, Business Development Director

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|---|---|---|
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| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1626** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW#15R-20250225 (A5B1749-02)** | | | | **Matrix: Water** | | | | |
| Batch: 25C0672 | | | | | | | | |
| **Aluminum** | **0.238** | 0.0250 | 0.0500 | mg/L | 1 | 03/19/25 04:32 | EPA 6020B | |
| **Calcium** | **17.1** | 0.300 | 0.600 | mg/L | 1 | 03/19/25 04:32 | EPA 6020B | |
| **Potassium** | **1.30** | 0.0500 | 0.100 | mg/L | 1 | 03/19/25 04:32 | EPA 6020B | |
| **Sodium** | **11.1** | 0.0500 | 0.100 | mg/L | 1 | 03/19/25 04:32 | EPA 6020B | |
| **SMW#115R-20250225 (A5B1749-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25C0672 | | | | | | | | |
| **Aluminum** | **0.159** | 0.0250 | 0.0500 | mg/L | 1 | 03/19/25 04:38 | EPA 6020B | |
| **Calcium** | **16.8** | 0.300 | 0.600 | mg/L | 1 | 03/19/25 04:38 | EPA 6020B | |
| **Potassium** | **1.26** | 0.0500 | 0.100 | mg/L | 1 | 03/19/25 04:38 | EPA 6020B | |
| **Sodium** | **10.8** | 0.0500 | 0.100 | mg/L | 1 | 03/19/25 04:38 | EPA 6020B | |
| **SMW#14-20250225 (A5B1749-04)** | | | | **Matrix: Water** | | | | |
| Batch: 25C0672 | | | | | | | | |
| **Aluminum** | **0.115** | 0.0250 | 0.0500 | mg/L | 1 | 03/19/25 04:43 | EPA 6020B | |
| **Calcium** | **35.2** | 0.300 | 0.600 | mg/L | 1 | 03/19/25 04:43 | EPA 6020B | |
| **Potassium** | **3.40** | 0.0500 | 0.100 | mg/L | 1 | 03/19/25 04:43 | EPA 6020B | |
| **Sodium** | **11.5** | 0.0500 | 0.100 | mg/L | 1 | 03/19/25 04:43 | EPA 6020B | |

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ANALYTICAL REPORT

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| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1626** |

## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW#15R-20250225 (A5B1749-02)** | | | | **Matrix: Water** | | | | |
| Batch: 25B0962 | | | | | | | | |
| **Chloride** | **5.52** | 0.500 | 1.00 | mg/L | 1 | 02/28/25 21:03 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 02/28/25 21:03 | EPA 300.0 | |
| **SMW#15R-20250225 (A5B1749-02RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25C0083 | | | | | | | | |
| **Sulfate** | **49.7** | 1.00 | 2.00 | mg/L | 2 | 03/04/25 10:43 | EPA 300.0 | |
| **SMW#115R-20250225 (A5B1749-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25B0962 | | | | | | | | |
| **Chloride** | **5.55** | 0.500 | 1.00 | mg/L | 1 | 02/28/25 21:24 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 02/28/25 21:24 | EPA 300.0 | |
| **SMW#115R-20250225 (A5B1749-03RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25C0083 | | | | | | | | |
| **Sulfate** | **49.4** | 1.00 | 2.00 | mg/L | 2 | 03/04/25 11:48 | EPA 300.0 | |
| **SMW#14-20250225 (A5B1749-04)** | | | | **Matrix: Water** | | | | |
| Batch: 25B0962 | | | | | | | | |
| **Chloride** | **8.92** | 0.500 | 1.00 | mg/L | 1 | 02/28/25 21:46 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 02/28/25 21:46 | EPA 300.0 | |
| **SMW#14-20250225 (A5B1749-04RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25C0083 | | | | | | | | |
| **Sulfate** | **38.0** | 1.00 | 2.00 | mg/L | 2 | 03/04/25 12:10 | EPA 300.0 | |

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Darwin Thomas, Business Development Director

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## ANALYTICAL SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW#15R-20250225 (A5B1749-02)** | | | | **Matrix: Water** | | **Batch: 25B0879** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 02/27/25 16:07 | D7511-12 | |
| **SMW#115R-20250225 (A5B1749-03)** | | | | **Matrix: Water** | | **Batch: 25B0879** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 02/27/25 16:11 | D7511-12 | |
| **SMW#14-20250225 (A5B1749-04)** | | | | **Matrix: Water** | | **Batch: 25B0879** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 02/27/25 16:13 | D7511-12 | |

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## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW#15R-20250225 (A5B1749-02)** | | | | **Matrix: Water** | | | | |
| Batch: 25B0907 | | | | | | | | |
| **pH** | **7.3** | --- | | pH Units | 1 | 02/27/25 17:52 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **18.9** | --- | | pH Units | 1 | 02/27/25 17:52 | SM 4500-H+ B | **H-12** |
| **SMW#115R-20250225 (A5B1749-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25B0907 | | | | | | | | |
| **pH** | **7.3** | --- | | pH Units | 1 | 02/27/25 17:56 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **19.4** | --- | | pH Units | 1 | 02/27/25 17:56 | SM 4500-H+ B | **H-12** |
| **SMW#14-20250225 (A5B1749-04)** | | | | **Matrix: Water** | | | | |
| Batch: 25B0907 | | | | | | | | |
| **pH** | **8.0** | --- | | pH Units | 1 | 02/27/25 18:00 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **18.7** | --- | | pH Units | 1 | 02/27/25 18:00 | SM 4500-H+ B | **H-12** |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25C0672 - EPA 3015A** | | | | | | | | | Water | | | |
| **Blank (25C0672-BLK1)** | | | Prepared: 03/18/25 09:16 | | Analyzed: 03/19/25 03:37 | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Potassium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sodium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25C0672-BS1)** | | | Prepared: 03/18/25 09:16 | | Analyzed: 03/19/25 03:43 | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 5.49 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | --- | 99 | 80-120% | --- | --- | |
| Calcium | 5.63 | 0.300 | 0.600 | mg/L | 1 | 5.56 | --- | 101 | 80-120% | --- | --- | |
| Potassium | 5.68 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 102 | 80-120% | --- | --- | |
| Sodium | 5.32 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 96 | 80-120% | --- | --- | |
| **Duplicate (25C0672-DUP1)** | | | Prepared: 03/18/25 09:16 | | Analyzed: 03/19/25 03:53 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1438-04) | | | | | | | | | | | | |
| Aluminum | **0.889** | 0.0250 | 0.0500 | mg/L | 1 | --- | 0.987 | --- | --- | 10 | 20% | |
| Calcium | **6.83** | 0.300 | 0.600 | mg/L | 1 | --- | 6.76 | --- | --- | 1 | 20% | |
| Potassium | **0.807** | 0.0500 | 0.100 | mg/L | 1 | --- | 0.794 | --- | --- | 2 | 20% | |
| Sodium | **4.21** | 0.0500 | 0.100 | mg/L | 1 | --- | 4.13 | --- | --- | 2 | 20% | |
| **Matrix Spike (25C0672-MS1)** | | | Prepared: 03/18/25 09:16 | | Analyzed: 03/19/25 03:59 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1438-04) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 7.25 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | 0.987 | 113 | 75-125% | --- | --- | |
| Calcium | 12.2 | 0.300 | 0.600 | mg/L | 1 | 5.56 | 6.76 | 98 | 75-125% | --- | --- | |
| Potassium | 6.45 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 0.794 | 102 | 75-125% | --- | --- | |
| Sodium | 9.27 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 4.13 | 93 | 75-125% | --- | --- | |

Apex Laboratories



Darwin Thomas, Business Development Director

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503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1626** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25B0962 - Method Prep: Aq** | | | | | | | | | Water | | | |
| **Blank (25B0962-BLK1)** | | | Prepared: 02/28/25 17:45 | | Analyzed: 02/28/25 19:15 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25B0962-BS1)** | | | Prepared: 02/28/25 17:45 | | Analyzed: 02/28/25 19:36 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 7.74 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 97 | 90-110% | --- | --- | |
| Fluoride | 8.33 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 104 | 90-110% | --- | --- | |
| Sulfate | 7.85 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 98 | 90-110% | --- | --- | |
| **Duplicate (25B0962-DUP1)** | | | Prepared: 02/28/25 17:45 | | Analyzed: 02/28/25 23:34 | | | | | | | |
| **QC Source Sample: Non-SDG (A5B1755-01)** | | | | | | | | | | | | |
| Chloride | **17.7** | 0.500 | 1.00 | mg/L | 1 | --- | 17.7 | --- | --- | 0.009 | 10% | |
| Fluoride | **1.61** | 0.500 | 1.00 | mg/L | 1 | --- | 1.62 | --- | --- | 0.6 | 10% | |
| Sulfate | **25.7** | 0.500 | 1.00 | mg/L | 1 | --- | 25.7 | --- | --- | 0.1 | 10% | |
| **Matrix Spike (25B0962-MS1)** | | | Prepared: 02/28/25 17:45 | | Analyzed: 02/28/25 23:55 | | | | | | | |
| **QC Source Sample: Non-SDG (A5B1755-01)** | | | | | | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 28.0 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 17.7 | 103 | 90-113% | --- | --- | |
| Fluoride | 12.5 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 1.62 | 109 | 88-120% | --- | --- | |
| Sulfate | 35.5 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 25.7 | 98 | 88-115% | --- | --- | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25C0083 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Blank (25C0083-BLK1)** | | | Prepared: 03/04/25 08:29 | | Analyzed: 03/04/25 10:00 | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25C0083-BS1)** | | | Prepared: 03/04/25 08:29 | | Analyzed: 03/04/25 10:22 | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Sulfate | 7.36 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 92 | 90-110% | --- | --- | |
| **Duplicate (25C0083-DUP1)** | | | Prepared: 03/04/25 08:29 | | Analyzed: 03/04/25 11:05 | | | | | | | |
| QC Source Sample: SMW#15R-20250225 (A5B1749-02RE1) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Sulfate | **49.2** | 1.00 | 2.00 | mg/L | 2 | --- | 49.7 | --- | --- | 0.9 | 10% | |
| **Matrix Spike (25C0083-MS1)** | | | Prepared: 03/04/25 08:29 | | Analyzed: 03/04/25 11:26 | | | | | | | |
| QC Source Sample: SMW#15R-20250225 (A5B1749-02RE1) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Sulfate | 63.8 | 1.00 | 2.00 | mg/L | 2 | 16.0 | 49.7 | 88 | 88-115% | --- | --- | |

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| Portland, OR 97219 | Project Manager: Lydia Greaves | A5B1749 - 05 29 25 1626 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25B0879 - ASTM D7511-12 (W)** | | | | | | | | | Water | | | |
| **Blank (25B0879-BLK1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:27 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25B0879-BS1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:29 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0242 | 0.00250 | 0.00500 | mg/L | 1 | 0.0250 | --- | 97 | 84-116% | --- | --- | |
| **Matrix Spike (25B0879-MS1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:35 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1657-01) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0172 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 68 | 64-136% | --- | --- | |
| **Matrix Spike (25B0879-MS2)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 13:57 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1432-02RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0343 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.0126 | 86 | 64-136% | --- | --- | |
| **Matrix Spike Dup (25B0879-MSD1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:37 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1657-01) | | | | | | | | | | | | |
| Total Cyanide | 0.0170 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 67 | 64-136% | 1 | 47% | |
| **Matrix Spike Dup (25B0879-MSD2)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 14:01 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1432-02RE1) | | | | | | | | | | | | |
| Total Cyanide | 0.0343 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.0126 | 87 | 64-136% | 0.2 | 47% | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25B0907 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Duplicate (25B0907-DUP1)** | | | Prepared: 02/27/25 17:03 | Analyzed: 02/27/25 17:50 | | | | | | | | |
| **QC Source Sample: Non-SDG (A5B1747-01)** | | | | | | | | | | | | |
| pH | **8.1** | --- | | pH Units | 1 | --- | 8.0 | --- | --- | 1 | 2% | H-12 |
| pH Temperature (deg C) | **20.5** | --- | | pH Units | 1 | --- | 20.5 | --- | --- | 0 | 30% | H-12 |
| **Reference (25B0907-SRM1)** | | | Prepared: 02/27/25 17:03 | Analyzed: 02/27/25 17:45 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 101 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 20.1 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |
| **Reference (25B0907-SRM2)** | | | Prepared: 02/27/25 17:03 | Analyzed: 02/27/25 18:10 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 7.9 | --- | | pH Units | 1 | 8.00 | | 99 | 99-101% | --- | --- | |
| pH Temperature (deg C) | 20.1 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |

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Project Number: **23002-05-06**
Project Manager: **Lydia Greaves**

**Report ID:**
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## SAMPLE PREPARATION INFORMATION

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25C0672 | | | | | | | |
| A5B1749-02 | Water | EPA 6020B | 02/25/25 10:30 | 03/18/25 09:16 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5B1749-03 | Water | EPA 6020B | 02/25/25 10:30 | 03/18/25 09:16 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5B1749-04 | Water | EPA 6020B | 02/25/25 10:44 | 03/18/25 09:16 | 45mL/50mL | 45mL/50mL | 1.00 |

### Anions by Ion Chromatography

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25B0962 | | | | | | | |
| A5B1749-02 | Water | EPA 300.0 | 02/25/25 10:30 | 02/28/25 17:45 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5B1749-03 | Water | EPA 300.0 | 02/25/25 10:30 | 02/28/25 17:45 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5B1749-04 | Water | EPA 300.0 | 02/25/25 10:44 | 02/28/25 17:45 | 5mL/5mL | 5mL/5mL | 1.00 |
| Batch: 25C0083 | | | | | | | |
| A5B1749-02RE1 | Water | EPA 300.0 | 02/25/25 10:30 | 03/04/25 08:29 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5B1749-03RE1 | Water | EPA 300.0 | 02/25/25 10:30 | 03/04/25 08:29 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5B1749-04RE1 | Water | EPA 300.0 | 02/25/25 10:44 | 03/04/25 08:29 | 5mL/5mL | 5mL/5mL | 1.00 |

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Prep: ASTM D7511-12 (W)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25B0879 | | | | | | | |
| A5B1749-02 | Water | D7511-12 | 02/25/25 10:30 | 02/27/25 10:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5B1749-03 | Water | D7511-12 | 02/25/25 10:30 | 02/27/25 10:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5B1749-04 | Water | D7511-12 | 02/25/25 10:44 | 02/27/25 10:17 | 10mL/10mL | 10mL/10mL | 1.00 |

### Conventional Chemistry Parameters

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25B0907 | | | | | | | |
| A5B1749-02 | Water | SM 4500-H+ B | 02/25/25 10:30 | 02/27/25 17:03 | 20mL/20mL | 20mL/20mL | NA |
| A5B1749-03 | Water | SM 4500-H+ B | 02/25/25 10:30 | 02/27/25 17:03 | 20mL/20mL | 20mL/20mL | NA |
| A5B1749-04 | Water | SM 4500-H+ B | 02/25/25 10:44 | 02/27/25 17:03 | 20mL/20mL | 20mL/20mL | NA |

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## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

**H-12** Sample Analysis or Filtration was performed >15 minutes after sample collection. Consult regulator or permit manager to determine the usability of data for intended use.

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## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting and Detection Limits: Default Limits**

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

**Benzofluoranthene Isomer Reporting:**

Due to coelutions present on the analytical column, the results reported for Benzo(b+j)fluoranthene(s) represent the concentraton of both the Benzo(b)fluoranthene and Benzo(j)fluoranthene isomers. Calibration, validation and accreditation are based on the Benzo(b)fluoranthene isomer.

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**Decanted Samples:**

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

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|---|---|---|
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| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1626** |

## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories



Darwin Thomas, Business Development Director

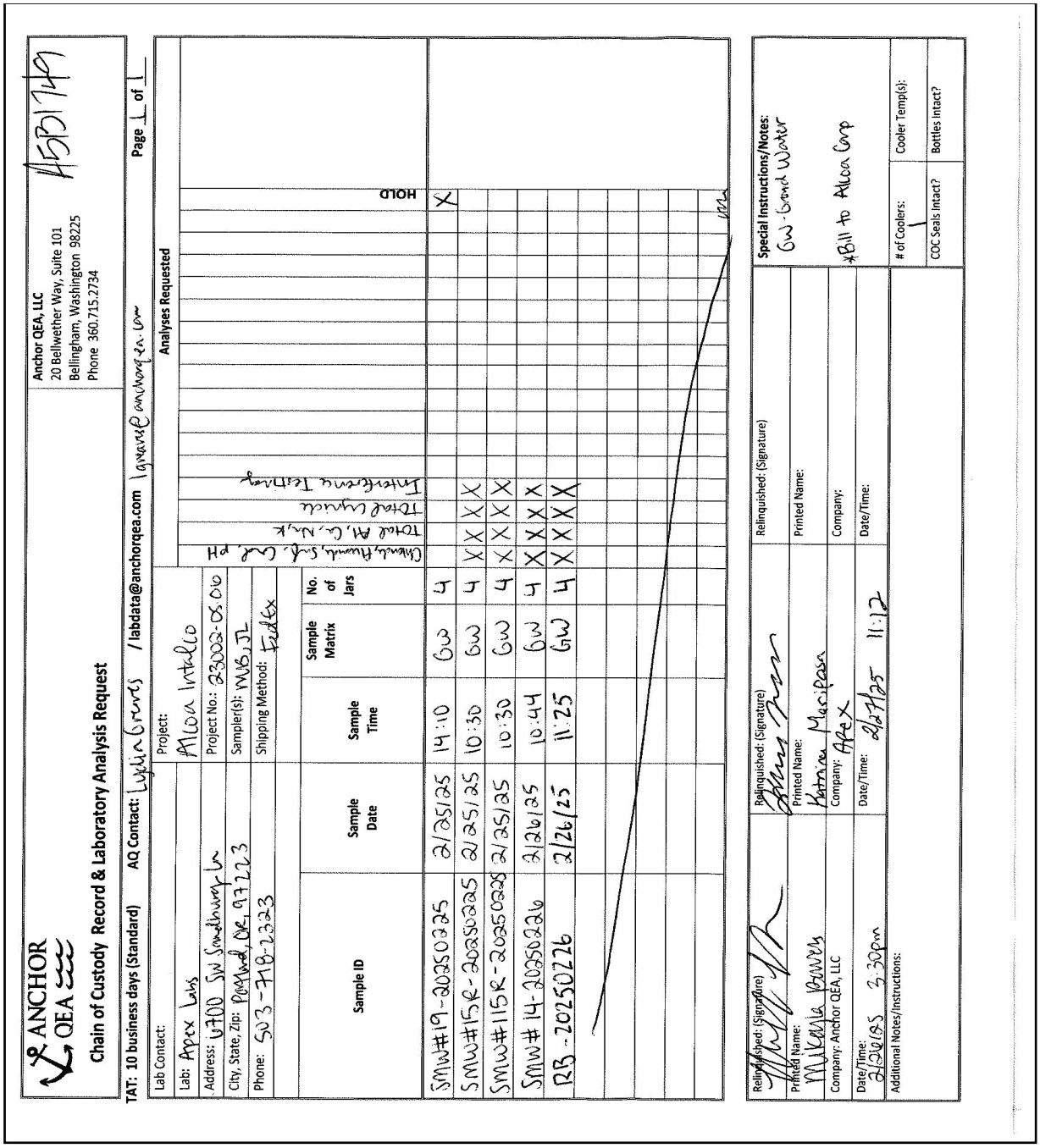
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**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

# ANALYTICAL REPORT

AMENDED REPORT

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1626** |



ANCHOR QEA
Chain of Custody Record & Laboratory Analysis Request
Anchor QEA, LLC
20 Bellwether Way, Suite 101
Bellingham, Washington 98225
Phone 360.715.2734
TAT: 10 business days (Standard) AQ Contact: Lydia Greaves /labdata@anchorqea.com lgreaves@anchorqea.com Page 1 of 1
Lab Contact:
Lab: Apex Labs
Address: 6700 SW Sandburg St
City, State, Zip: Portland, OR, 97223
Phone: 503-718-2323
Project: Alcoa Intalco
Project No.: 23002-05.010
Sampler(s): MB, JL
Shipping Method: Fedex
Analyses Requested
Special Instructions/Notes: GW - Grab Water; Bill to Alcoa Corp
# of Coolers: 1
COC Seals Intact?
Cooler Temp(s):
Bottles Intact?

| Sample ID | Sample Date | Sample Time | Sample Matrix | No. of Jars | Chem, Hum, Sed, Cyn, pH | Total Al, Ca, Na, K | Total Cyanide | Total Fluoride | HOLD |
|---|---|---|---|---|---|---|---|---|---|
| SMW#19-20250225 | 2/25/25 | 14:10 | GW | 4 | | X | X | X | X |
| SMW#15E-20250225 | 2/25/25 | 10:30 | GW | 4 | X | X | X | X | |
| SMW#11SR-20250225 | 2/25/25 | 10:30 | GW | 4 | X | X | X | X | |
| SMW#14-20250226 | 2/26/25 | 10:49 | GW | 4 | X | X | X | X | |
| RB-20250226 | 2/26/25 | 11:25 | GW | 4 | X | X | X | X | |

Relinquished: (Signature) — Printed Name: Mikaela Powers — Company: Anchor QEA, LLC — Date/Time: 2/26/25 3:30pm
Relinquished: (Signature) — Printed Name: Katrina MacPhee — Company: Apex — Date/Time: 2/27/25 11:12
Additional Notes/Instructions:

Apex Laboratories

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**ANALYTICAL REPORT**

AMENDED REPORT

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| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1626** |

## APEX LABS COOLER RECEIPT FORM

**Client:** Anchor QEA Element WO#: A5 B1749

**Project/Project #:** Alcoa Intalco - 23002-05.06

**Delivery Info:**
Date/time received: 2/27/25 @ 11:12 By: JKM
Delivered by: Apex__Client__ESS___FedEx X UPS ~~X~~ Radio JKM 2/27 ___Morgan ___SDS___Evergreen___Other ___
From USDA Regulated Origin? Yes _____ No X

**Cooler Inspection** Date/time inspected: 2/27/25 @ 11:12 By: JKM
Chain of Custody included? Yes X No _____
Signed/dated by client? Yes X No _____
Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 0.9 | | | | | | |
| Custody seals? (Y/N) | N | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | N | | | | | | |
| Ice type: (Gel/Real/Other) | Real | | | | | | |
| Condition (In/Out): | In | | | | | | |

Cooler out of temp? (Y/N) Possible reason why: _____
Green dots applied to out of temperature samples? Yes (No)
Out of temperature samples form initiated? Yes (No)
**Sample Inspection:** Date/time inspected: 2/27/25 @ 1450 By: JS
All samples intact? Yes X No ___ Comments: _____
Bottle labels/COCs agree? Yes X No ___ Comments: _____
COC/container discrepancies form initiated? Yes ___ No X
Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____
Do VOA vials have visible headspace? Yes ___ No ___ NA X
Comments _____
Water samples: pH checked: Yes X No___NA___ pH appropriate? Yes X No___NA____ pH ID: A23I172 A23I233
Comments: _____
7723 3509 7059
Labeled by: JS Witness: JKM Cooler Inspected by: JS Form Y-003 R-02 -

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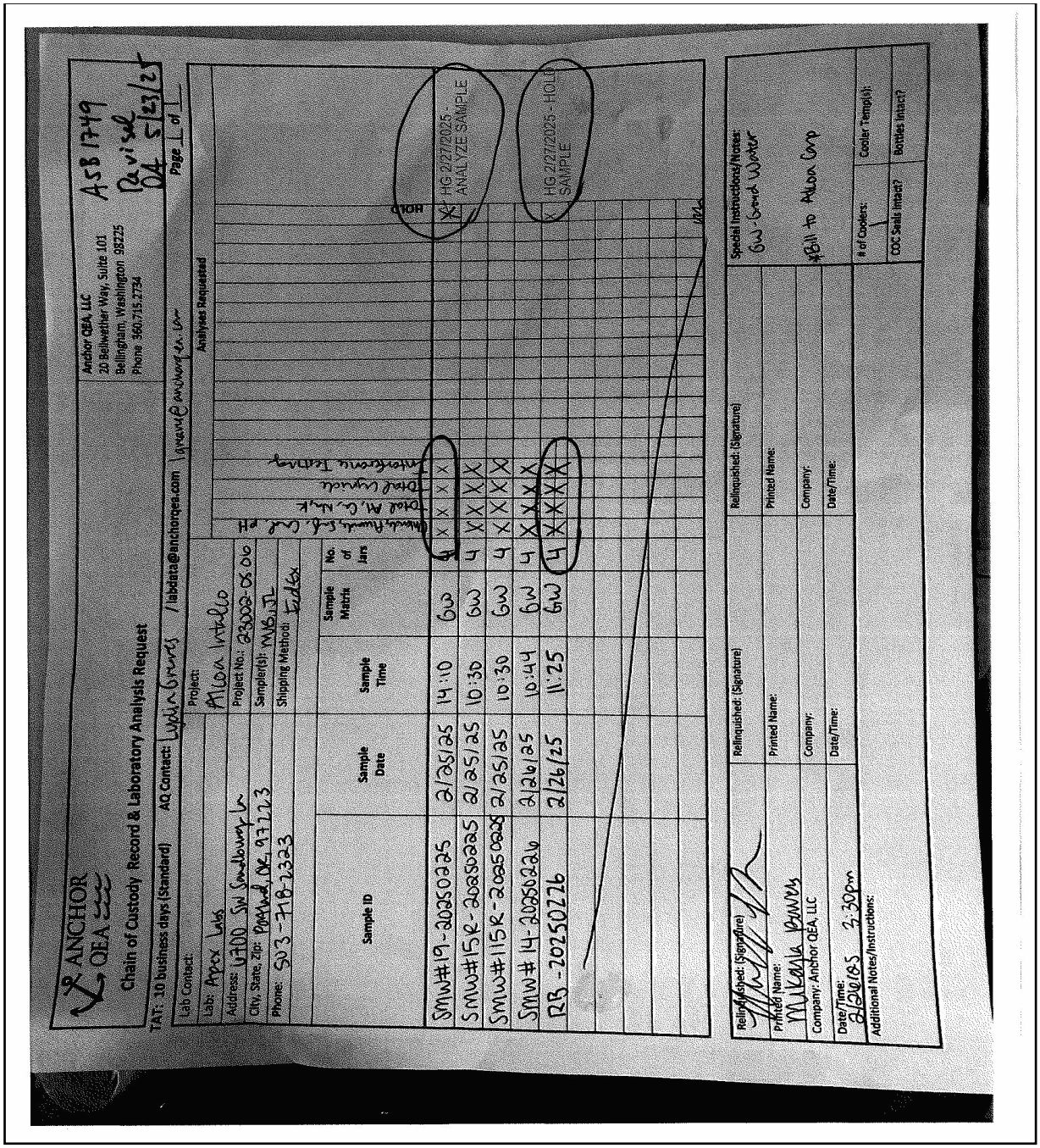
Darwin Thomas, Business Development Director

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**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

# ANALYTICAL REPORT

AMENDED REPORT

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1626** |




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**ANALYTICAL REPORT**

AMENDED REPORT

Thursday, May 29, 2025

Lydia Greaves
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A5B1749 - Alcoa - Intalco - 23002-05-06

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5B1749, which was received by the laboratory on 2/27/2025 at 11:12:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information |
|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. |
| (See Cooler Receipt Form for details) |
| Default Cooler 0.9 degC |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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Darwin Thomas, Business Development Director

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**ANALYTICAL REPORT**

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| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
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| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1632** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| **RB-20250226** | **A5B1749-05** | **Water** | **02/26/25 11:25** | **02/27/25 11:12** |

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| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1632** |

## ANALYTICAL CASE NARRATIVE

**A5B1749** **Apex Laboratories**

Amended Report Revision 1: This report supersedes all previous reports.

Split Reporting-

At client request, the final report has been amended to be split into two reports. Sample; "RB-20250226' " will be reported as one report and the remaining samples as the second report.

Darrell Auvil
Apex Labs
5/23/2025

Apex Laboratories



Darwin Thomas, Business Development Director

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**ANALYTICAL REPORT**

AMENDED REPORT

| | | |
|---|---|---|
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| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1632** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **RB-20250226 (A5B1749-05)** | | | | **Matrix: Water** | | | | |
| Batch: 25C0672 | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | 03/19/25 04:49 | EPA 6020B | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | 03/19/25 04:49 | EPA 6020B | |
| Potassium | ND | 0.0500 | 0.100 | mg/L | 1 | 03/19/25 04:49 | EPA 6020B | |
| **Sodium** | **0.122** | 0.0500 | 0.100 | mg/L | 1 | 03/19/25 04:49 | EPA 6020B | |

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## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **RB-20250226 (A5B1749-05)** | | | | **Matrix: Water** | | | | |
| Batch: 25B0962 | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | 02/28/25 22:07 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 02/28/25 22:07 | EPA 300.0 | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | 02/28/25 22:07 | EPA 300.0 | |

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Darwin Thomas, Business Development Director

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**ANALYTICAL REPORT**

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## ANALYTICAL SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **RB-20250226 (A5B1749-05)** | | | | **Matrix: Water** | | **Batch: 25B0879** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 02/27/25 16:05 | D7511-12 | |

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Darwin Thomas, Business Development Director

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**ANALYTICAL REPORT**

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| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1632** |

## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **RB-20250226 (A5B1749-05)** | | | | **Matrix: Water** | | | | |
| Batch: 25B0907 | | | | | | | | |
| **pH** | **6.6** | --- | | pH Units | 1 | 02/27/25 18:06 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **18.8** | --- | | pH Units | 1 | 02/27/25 18:06 | SM 4500-H+ B | **H-12** |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25C0672 - EPA 3015A** | | | | | | | | | | | | **Water** |
| **Blank (25C0672-BLK1)** | | | | Prepared: 03/18/25 09:16 Analyzed: 03/19/25 03:37 | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Potassium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sodium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25C0672-BS1)** | | | | Prepared: 03/18/25 09:16 Analyzed: 03/19/25 03:43 | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 5.49 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | --- | 99 | 80-120% | --- | --- | |
| Calcium | 5.63 | 0.300 | 0.600 | mg/L | 1 | 5.56 | --- | 101 | 80-120% | --- | --- | |
| Potassium | 5.68 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 102 | 80-120% | --- | --- | |
| Sodium | 5.32 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 96 | 80-120% | --- | --- | |
| **Duplicate (25C0672-DUP1)** | | | | Prepared: 03/18/25 09:16 Analyzed: 03/19/25 03:53 | | | | | | | | |
| QC Source Sample: Non-SDG (A5B1438-04) | | | | | | | | | | | | |
| Aluminum | **0.889** | 0.0250 | 0.0500 | mg/L | 1 | --- | 0.987 | --- | --- | 10 | 20% | |
| Calcium | **6.83** | 0.300 | 0.600 | mg/L | 1 | --- | 6.76 | --- | --- | 1 | 20% | |
| Potassium | **0.807** | 0.0500 | 0.100 | mg/L | 1 | --- | 0.794 | --- | --- | 2 | 20% | |
| Sodium | **4.21** | 0.0500 | 0.100 | mg/L | 1 | --- | 4.13 | --- | --- | 2 | 20% | |
| **Matrix Spike (25C0672-MS1)** | | | | Prepared: 03/18/25 09:16 Analyzed: 03/19/25 03:59 | | | | | | | | |
| QC Source Sample: Non-SDG (A5B1438-04) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 7.25 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | 0.987 | 113 | 75-125% | --- | --- | |
| Calcium | 12.2 | 0.300 | 0.600 | mg/L | 1 | 5.56 | 6.76 | 98 | 75-125% | --- | --- | |
| Potassium | 6.45 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 0.794 | 102 | 75-125% | --- | --- | |
| Sodium | 9.27 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 4.13 | 93 | 75-125% | --- | --- | |

Apex Laboratories



Darwin Thomas, Business Development Director

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503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

| | | |
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| **6720 SW Macadam Ave. Suite 125** | Project Number: **23002-05-06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Lydia Greaves** | **A5B1749 - 05 29 25 1632** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25B0962 - Method Prep: Aq** | | | | | | | | | Water | | | |
| **Blank (25B0962-BLK1)** | | | Prepared: 02/28/25 17:45 | | Analyzed: 02/28/25 19:15 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25B0962-BS1)** | | | Prepared: 02/28/25 17:45 | | Analyzed: 02/28/25 19:36 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 7.74 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 97 | 90-110% | --- | --- | |
| Fluoride | 8.33 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 104 | 90-110% | --- | --- | |
| Sulfate | 7.85 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 98 | 90-110% | --- | --- | |
| **Duplicate (25B0962-DUP1)** | | | Prepared: 02/28/25 17:45 | | Analyzed: 02/28/25 23:34 | | | | | | | |
| **QC Source Sample: Non-SDG (A5B1755-01)** | | | | | | | | | | | | |
| Chloride | **17.7** | 0.500 | 1.00 | mg/L | 1 | --- | 17.7 | --- | --- | 0.009 | 10% | |
| Fluoride | **1.61** | 0.500 | 1.00 | mg/L | 1 | --- | 1.62 | --- | --- | 0.6 | 10% | |
| Sulfate | **25.7** | 0.500 | 1.00 | mg/L | 1 | --- | 25.7 | --- | --- | 0.1 | 10% | |
| **Matrix Spike (25B0962-MS1)** | | | Prepared: 02/28/25 17:45 | | Analyzed: 02/28/25 23:55 | | | | | | | |
| **QC Source Sample: Non-SDG (A5B1755-01)** | | | | | | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 28.0 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 17.7 | 103 | 90-113% | --- | --- | |
| Fluoride | 12.5 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 1.62 | 109 | 88-120% | --- | --- | |
| Sulfate | 35.5 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 25.7 | 98 | 88-115% | --- | --- | |

Apex Laboratories



Darwin Thomas, Business Development Director

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|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 125 | Project Number: 23002-05-06 | Report ID: |
| Portland, OR 97219 | Project Manager: Lydia Greaves | A5B1749 - 05 29 25 1632 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25B0879 - ASTM D7511-12 (W)** | | | | | | | Water | | | | | |
| **Blank (25B0879-BLK1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:27 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25B0879-BS1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:29 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0242 | 0.00250 | 0.00500 | mg/L | 1 | 0.0250 | --- | 97 | 84-116% | --- | --- | |
| **Matrix Spike (25B0879-MS1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:35 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1657-01) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0172 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 68 | 64-136% | --- | --- | |
| **Matrix Spike (25B0879-MS2)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 13:57 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1432-02RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0343 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.0126 | 86 | 64-136% | --- | --- | |
| **Matrix Spike Dup (25B0879-MSD1)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 12:37 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1657-01) | | | | | | | | | | | | |
| Total Cyanide | 0.0170 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 67 | 64-136% | 1 | 47% | |
| **Matrix Spike Dup (25B0879-MSD2)** | | | Prepared: 02/27/25 10:17 | | Analyzed: 02/27/25 14:01 | | | | | | | |
| QC Source Sample: Non-SDG (A5B1432-02RE1) | | | | | | | | | | | | |
| Total Cyanide | 0.0343 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.0126 | 87 | 64-136% | 0.2 | 47% | |

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**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**Anchor QEA, LLC**
**6720 SW Macadam Ave. Suite 125**
**Portland, OR 97219**

Project: **Alcoa - Intalco**
Project Number: **23002-05-06**
Project Manager: **Lydia Greaves**

**Report ID:**
**A5B1749 - 05 29 25 1632**

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25B0907 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Duplicate (25B0907-DUP1)** | | | Prepared: 02/27/25 17:03 | | Analyzed: 02/27/25 17:50 | | | | | | | |
| **QC Source Sample: Non-SDG (A5B1747-01)** | | | | | | | | | | | | |
| pH | **8.1** | --- | | pH Units | 1 | --- | 8.0 | --- | --- | 1 | 2% | H-12 |
| pH Temperature (deg C) | **20.5** | --- | | pH Units | 1 | --- | 20.5 | --- | --- | 0 | 30% | H-12 |
| **Reference (25B0907-SRM1)** | | | Prepared: 02/27/25 17:03 | | Analyzed: 02/27/25 17:45 | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 101 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 20.1 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |
| **Reference (25B0907-SRM2)** | | | Prepared: 02/27/25 17:03 | | Analyzed: 02/27/25 18:10 | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 7.9 | --- | | pH Units | 1 | 8.00 | | 99 | 99-101% | --- | --- | |
| pH Temperature (deg C) | 20.1 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |

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**ANALYTICAL REPORT**

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Project Number: **23002-05-06**
Project Manager: **Lydia Greaves**

**Report ID:**
**A5B1749 - 05 29 25 1632**

## SAMPLE PREPARATION INFORMATION

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25C0672 | | | | | | | |
| A5B1749-05 | Water | EPA 6020B | 02/26/25 11:25 | 03/18/25 09:16 | 45mL/50mL | 45mL/50mL | 1.00 |

### Anions by Ion Chromatography

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25B0962 | | | | | | | |
| A5B1749-05 | Water | EPA 300.0 | 02/26/25 11:25 | 02/28/25 17:45 | 5mL/5mL | 5mL/5mL | 1.00 |

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Prep: ASTM D7511-12 (W)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25B0879 | | | | | | | |
| A5B1749-05 | Water | D7511-12 | 02/26/25 11:25 | 02/27/25 10:17 | 10mL/10mL | 10mL/10mL | 1.00 |

### Conventional Chemistry Parameters

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25B0907 | | | | | | | |
| A5B1749-05 | Water | SM 4500-H+ B | 02/26/25 11:25 | 02/27/25 17:03 | 20mL/20mL | 20mL/20mL | NA |

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## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

**H-12** Sample Analysis or Filtration was performed >15 minutes after sample collection. Consult regulator or permit manager to determine the usability of data for intended use.

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## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting and Detection Limits: Default Limits**

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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Darwin Thomas, Business Development Director

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## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

**Benzofluoranthene Isomer Reporting:**

Due to coelutions present on the analytical column, the results reported for Benzo(b+j)fluoranthene(s) represent the concentraton of both the Benzo(b)fluoranthene and Benzo(j)fluoranthene isomers. Calibration, validation and accreditation are based on the Benzo(b)fluoranthene isomer.

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**Decanted Samples:**

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

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## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories



Darwin Thomas, Business Development Director

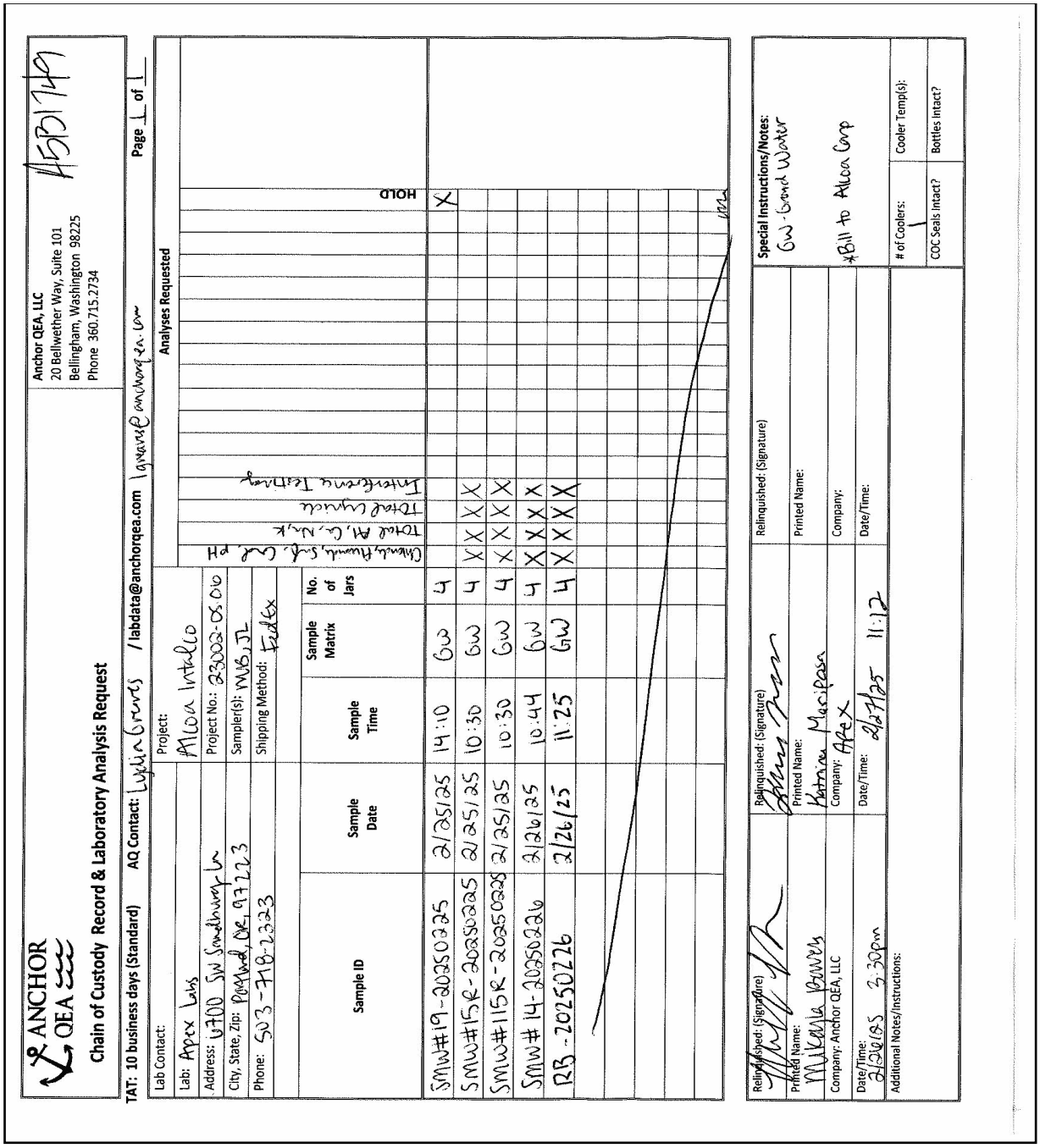
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# ANALYTICAL REPORT

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ANCHOR QEA
Chain of Custody Record & Laboratory Analysis Request
Anchor QEA, LLC
20 Bellwether Way, Suite 101
Bellingham, Washington 98225
Phone 360.715.2734
TAT: 10 business days (Standard) AQ Contact: Lydia Greaves /labdata@anchorqea.com lgreaves@anchorqea.com Page 1 of 1
Lab Contact:
Lab: Apex Labs
Address: 6700 SW Sandburg St
City, State, Zip: Portland, OR, 97223
Phone: 503-718-2323
Project: Alcoa Intalco
Project No.: 23002-05.010
Sampler(s): MB, JL
Shipping Method: Fedex
Analyses Requested
Special Instructions/Notes: GW - Grab Water; Bill to Alcoa Corp
# of Coolers: 1
Cooler Temp(s):
COC Seals Intact?
Bottles Intact?
Additional Notes/Instructions:

| Sample ID | Sample Date | Sample Time | Sample Matrix | No. of Jars | Chem, Hum, Sed, Cyn, pH | Total Al, Ca, Na, K | Total Cyanide | Total Fluoride | HOLD |
|---|---|---|---|---|---|---|---|---|---|
| SMW#19-20250225 | 2/25/25 | 14:10 | GW | 4 | | X | X | X | X |
| SMW#15E-20250225 | 2/25/25 | 10:30 | GW | 4 | | X | X | X | |
| SMW#11SR-20250225 | 2/25/25 | 10:30 | GW | 4 | | X | X | X | |
| SMW#14-20250226 | 2/26/25 | 10:44 | GW | 4 | | X | X | X | |
| RB-20250226 | 2/26/25 | 11:25 | GW | 4 | | X | X | X | |

Relinquished: (Signature) — Printed Name: Mikaela Powers — Company: Anchor QEA, LLC — Date/Time: 2/26/25 3:30pm
Relinquished: (Signature) — Printed Name: Katrina MacPhee — Company: Apex — Date/Time: 2/27/25 11:12
Relinquished: (Signature) — Printed Name: — Company: — Date/Time:

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## APEX LABS COOLER RECEIPT FORM

**Client:** Anchor QEA Element WO#: A5 B1749

**Project/Project #:** Alcoa Intalco - 23002-05.06

**Delivery Info:**
Date/time received: 2/27/25 @ 11:12 By: JKM
Delivered by: Apex__Client__ESS___FedEx X UPS ~~X~~ Radio JKM 2/27 ___Morgan ___SDS___Evergreen___Other ___
From USDA Regulated Origin? Yes _____ No X

**Cooler Inspection** Date/time inspected: 2/27/25 @ 11:12 By: JKM
Chain of Custody included? Yes X No _____
Signed/dated by client? Yes X No _____
Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 0.9 | | | | | | |
| Custody seals? (Y/N) | N | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | N | | | | | | |
| Ice type: (Gel/Real/Other) | Real | | | | | | |
| Condition (In/Out): | In | | | | | | |

Cooler out of temp? (Y/N) Possible reason why: _____
Green dots applied to out of temperature samples? Yes (No)
Out of temperature samples form initiated? Yes (No)
**Sample Inspection:** Date/time inspected: 2/27/25 @ 1450 By: JS
All samples intact? Yes X No ___ Comments: _____
Bottle labels/COCs agree? Yes X No ___ Comments: _____
COC/container discrepancies form initiated? Yes ___ No X
Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____
Do VOA vials have visible headspace? Yes ___ No ___ NA X
Comments _____
Water samples: pH checked: Yes X No___NA___ pH appropriate? Yes X No___NA____ pH ID: A23I172 A23I233
Comments: _____
7723 3509 7059
Labeled by: JS Witness: JKM Cooler Inspected by: JS Form Y-003 R-02 -

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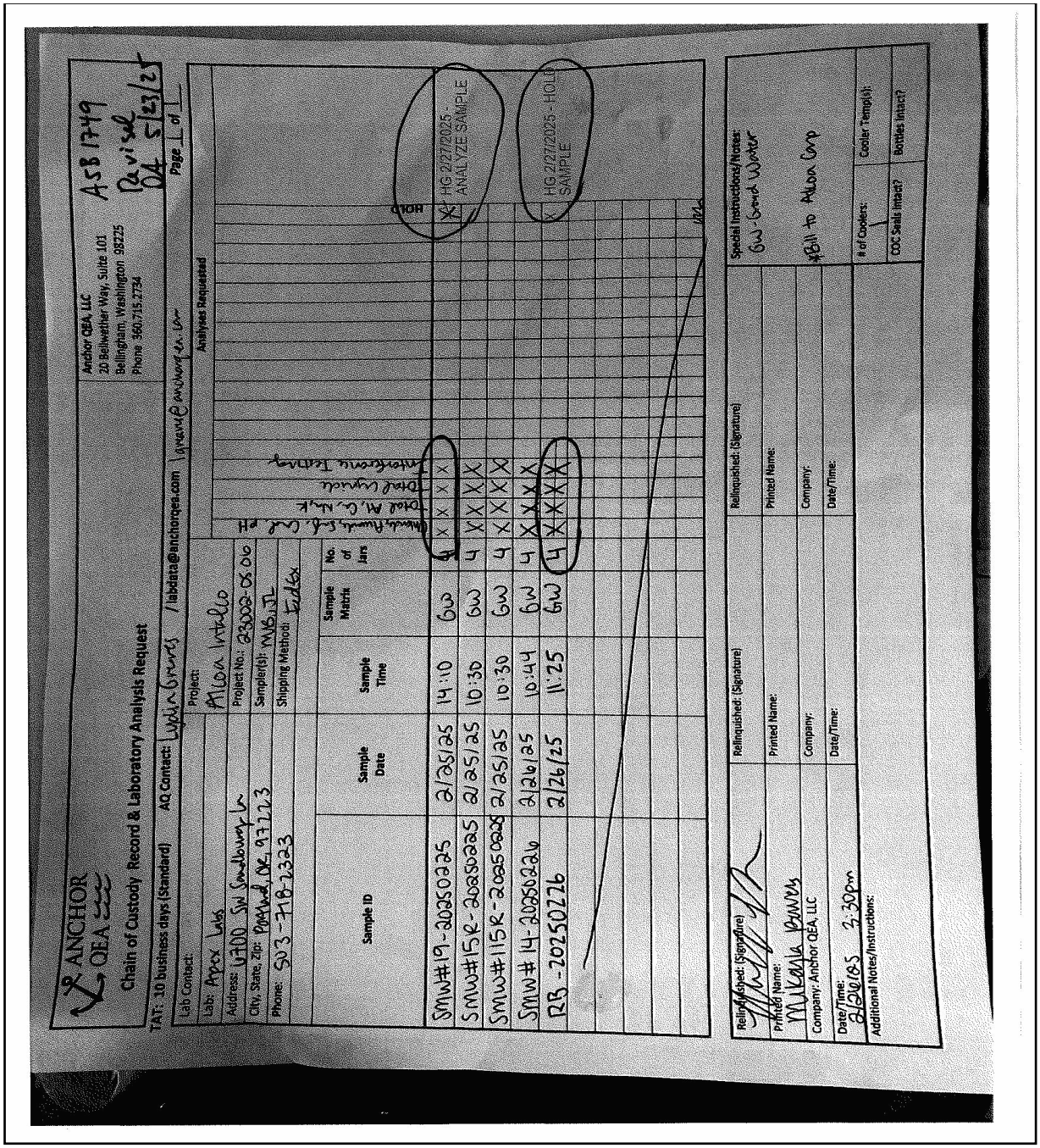
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**ANALYTICAL REPORT**

AMENDED REPORT

Thursday, September 25, 2025

Ali Judkins
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 300
Portland, OR 97219

RE: A5E1178 - Alcoa - Intalco - 230002-05.06

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5E1178, which was received by the laboratory on 5/10/2025 at 9:34:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information |
|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. |
| (See Cooler Receipt Form for details) |
| Default Cooler 3.9 degC |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Darwin Thomas, Business Development Director

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**Apex Laboratories, LLC**
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| SMW-12-20250506 | A5E1178-01 | GW | 05/06/25 15:05 | 05/10/25 09:34 |
| SMW-13-20250506 | A5E1178-02 | GW | 05/06/25 13:35 | 05/10/25 09:34 |
| SMW-9-20250507 | A5E1178-03 | GW | 05/07/25 13:40 | 05/10/25 09:34 |
| SMW-3-20250507 | A5E1178-04 | GW | 05/07/25 11:00 | 05/10/25 09:34 |
| SMW-6-20250507 | A5E1178-05 | GW | 05/07/25 12:28 | 05/10/25 09:34 |
| SMW-2-20250509 | A5E1178-06 | GW | 05/09/25 12:30 | 05/10/25 09:34 |
| SMW-14-20250508 | A5E1178-07 | GW | 05/08/25 10:15 | 05/10/25 09:34 |
| SMW-19-20250508 | A5E1178-08 | GW | 05/08/25 11:45 | 05/10/25 09:34 |
| SMW-15R-20250508 | A5E1178-09 | GW | 05/08/25 13:20 | 05/10/25 09:34 |
| EB-20250509 | A5E1178-10 | GW | 05/09/25 10:15 | 05/10/25 09:34 |
| SMW-102-20250509 | A5E1178-11 | GW | 05/09/25 12:30 | 05/10/25 09:34 |

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| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## ANALYTICAL CASE NARRATIVE

**A5E1178** **Apex Laboratories**

Amended Report Revision 1: This report supersedes all previous reports.

Sample Identification Change-

The following sample ID has been edited from the original report:

Sample, “SMW--102-20250509” is now reported as, "SMW-102-20250509" (one hyphen removed) (Apex ID: A5E1178-11).

Darrell Auvil
Client Services Manager
9/15/2025

Apex Laboratories

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Darwin Thomas, Business Development Director

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**ANALYTICAL REPORT**

AMENDED REPORT

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-12-20250506 (A5E1178-01)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Aluminum** | **0.0268** | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 19:53 | EPA 6020B | **J** |
| **Calcium** | **34.6** | 0.300 | 0.600 | mg/L | 1 | 05/24/25 19:53 | EPA 6020B | |
| **Potassium** | **1.42** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 19:53 | EPA 6020B | |
| **Sodium** | **31.1** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 19:53 | EPA 6020B | |
| **SMW-13-20250506 (A5E1178-02)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Aluminum** | **0.0598** | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 20:09 | EPA 6020B | |
| **Potassium** | **3.50** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:09 | EPA 6020B | |
| **Sodium** | **19.5** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:09 | EPA 6020B | |
| **SMW-13-20250506 (A5E1178-02RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Calcium** | **82.4** | 3.00 | 6.00 | mg/L | 10 | 05/27/25 12:26 | EPA 6020B | |
| **SMW-9-20250507 (A5E1178-03)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Aluminum** | **0.0379** | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 20:15 | EPA 6020B | **J** |
| **Calcium** | **46.6** | 0.300 | 0.600 | mg/L | 1 | 05/24/25 20:15 | EPA 6020B | |
| **Potassium** | **1.88** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:15 | EPA 6020B | |
| **Sodium** | **16.4** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:15 | EPA 6020B | |
| **SMW-3-20250507 (A5E1178-04)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 20:20 | EPA 6020B | |
| **Potassium** | **4.93** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:20 | EPA 6020B | |
| **SMW-3-20250507 (A5E1178-04RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Calcium** | **135** | 3.00 | 6.00 | mg/L | 10 | 05/27/25 12:32 | EPA 6020B | |
| **Sodium** | **72.4** | 0.500 | 1.00 | mg/L | 10 | 05/27/25 12:32 | EPA 6020B | |
| **SMW-6-20250507 (A5E1178-05)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |

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Darwin Thomas, Business Development Director

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**ANALYTICAL REPORT**

AMENDED REPORT

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| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-6-20250507 (A5E1178-05)** | | | | **Matrix: GW** | | | | |
| **Aluminum** | **0.826** | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 20:26 | EPA 6020B | |
| **Potassium** | **2.18** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:26 | EPA 6020B | |
| **Sodium** | **18.8** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:26 | EPA 6020B | |
| **SMW-6-20250507 (A5E1178-05RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Calcium** | **78.8** | 3.00 | 6.00 | mg/L | 10 | 05/27/25 12:37 | EPA 6020B | |
| **SMW-2-20250509 (A5E1178-06)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Aluminum** | **1.26** | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 20:31 | EPA 6020B | |
| **Calcium** | **44.8** | 0.300 | 0.600 | mg/L | 1 | 05/24/25 20:31 | EPA 6020B | |
| **Potassium** | **3.38** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:31 | EPA 6020B | |
| **Sodium** | **15.3** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:31 | EPA 6020B | |
| **SMW-14-20250508 (A5E1178-07)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Aluminum** | **0.150** | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 20:37 | EPA 6020B | |
| **Calcium** | **33.1** | 0.300 | 0.600 | mg/L | 1 | 05/24/25 20:37 | EPA 6020B | |
| **Potassium** | **3.06** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:37 | EPA 6020B | |
| **Sodium** | **12.1** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:37 | EPA 6020B | |
| **SMW-19-20250508 (A5E1178-08)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 20:53 | EPA 6020B | |
| **Calcium** | **25.5** | 0.300 | 0.600 | mg/L | 1 | 05/24/25 20:53 | EPA 6020B | |
| **Potassium** | **4.59** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:53 | EPA 6020B | |
| **Sodium** | **11.6** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:53 | EPA 6020B | |
| **SMW-15R-20250508 (A5E1178-09)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Aluminum** | **0.245** | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 20:59 | EPA 6020B | |
| **Calcium** | **16.1** | 0.300 | 0.600 | mg/L | 1 | 05/24/25 20:59 | EPA 6020B | |
| **Potassium** | **1.13** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:59 | EPA 6020B | |
| **Sodium** | **11.4** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 20:59 | EPA 6020B | |

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Darwin Thomas, Business Development Director

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**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **EB-20250509 (A5E1178-10)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Aluminum** | **0.0606** | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 21:04 | EPA 6020B | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | 05/24/25 21:04 | EPA 6020B | |
| Potassium | ND | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 21:04 | EPA 6020B | |
| **Sodium** | **0.783** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 21:04 | EPA 6020B | |
| **SMW-102-20250509 (A5E1178-11)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0851 | | | | | | | | |
| **Aluminum** | **1.29** | 0.0250 | 0.0500 | mg/L | 1 | 05/24/25 21:10 | EPA 6020B | |
| **Calcium** | **43.9** | 0.300 | 0.600 | mg/L | 1 | 05/24/25 21:10 | EPA 6020B | |
| **Potassium** | **3.33** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 21:10 | EPA 6020B | |
| **Sodium** | **14.9** | 0.0500 | 0.100 | mg/L | 1 | 05/24/25 21:10 | EPA 6020B | |

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ANALYTICAL REPORT

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-12-20250506 (A5E1178-01)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| **Chloride** | **77.2** | 2.50 | 5.00 | mg/L | 5 | 05/12/25 12:56 | EPA 300.0 | |
| **Sulfate** | **31.4** | 2.50 | 5.00 | mg/L | 5 | 05/12/25 12:56 | EPA 300.0 | |
| **SMW-12-20250506 (A5E1178-01RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0398 | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 05/13/25 12:28 | EPA 300.0 | |
| **SMW-13-20250506 (A5E1178-02)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| **Chloride** | **8.75** | 0.500 | 1.00 | mg/L | 1 | 05/12/25 14:00 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 05/12/25 14:00 | EPA 300.0 | |
| **Sulfate** | **20.8** | 0.500 | 1.00 | mg/L | 1 | 05/12/25 14:00 | EPA 300.0 | |
| **SMW-9-20250507 (A5E1178-03)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| **Chloride** | **10.5** | 0.500 | 1.00 | mg/L | 1 | 05/12/25 15:05 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 05/12/25 15:05 | EPA 300.0 | |
| **SMW-9-20250507 (A5E1178-03RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0398 | | | | | | | | |
| **Sulfate** | **85.8** | 2.50 | 5.00 | mg/L | 5 | 05/13/25 12:49 | EPA 300.0 | |
| **SMW-3-20250507 (A5E1178-04)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| **Chloride** | **356** | 10.0 | 20.0 | mg/L | 20 | 05/12/25 15:27 | EPA 300.0 | |
| **SMW-3-20250507 (A5E1178-04RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0398 | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 05/13/25 13:11 | EPA 300.0 | |
| **Sulfate** | **16.6** | 0.500 | 1.00 | mg/L | 1 | 05/13/25 13:11 | EPA 300.0 | |
| **SMW-6-20250507 (A5E1178-05)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| **Chloride** | **25.1** | 0.500 | 1.00 | mg/L | 1 | 05/12/25 16:31 | EPA 300.0 | |
| **Fluoride** | **1.29** | 0.500 | 1.00 | mg/L | 1 | 05/12/25 16:31 | EPA 300.0 | |

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Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

AMENDED REPORT

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| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-6-20250507 (A5E1178-05)** | | | | **Matrix: GW** | | | | |
| **Sulfate** | **26.7** | 0.500 | 1.00 | mg/L | 1 | 05/12/25 16:31 | EPA 300.0 | |
| **SMW-2-20250509 (A5E1178-06)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| **Chloride** | **61.0** | 1.00 | 2.00 | mg/L | 2 | 05/12/25 16:53 | EPA 300.0 | |
| **Sulfate** | **12.2** | 1.00 | 2.00 | mg/L | 2 | 05/12/25 16:53 | EPA 300.0 | |
| **SMW-2-20250509 (A5E1178-06RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0450 | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 05/14/25 12:25 | EPA 300.0 | |
| **SMW-14-20250508 (A5E1178-07)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| **Chloride** | **9.19** | 0.500 | 1.00 | mg/L | 1 | 05/12/25 17:14 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 05/12/25 17:14 | EPA 300.0 | |
| **SMW-14-20250508 (A5E1178-07RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0398 | | | | | | | | |
| **Sulfate** | **41.6** | 1.00 | 2.00 | mg/L | 2 | 05/13/25 14:59 | EPA 300.0 | |
| **SMW-19-20250508 (A5E1178-08)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| **Chloride** | **7.50** | 0.500 | 1.00 | mg/L | 1 | 05/12/25 17:36 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 05/12/25 17:36 | EPA 300.0 | |
| **SMW-19-20250508 (A5E1178-08RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0398 | | | | | | | | |
| **Sulfate** | **42.8** | 1.00 | 2.00 | mg/L | 2 | 05/13/25 15:20 | EPA 300.0 | |
| **SMW-15R-20250508 (A5E1178-09)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| **Chloride** | **5.46** | 0.500 | 1.00 | mg/L | 1 | 05/12/25 17:58 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 05/12/25 17:58 | EPA 300.0 | |
| **SMW-15R-20250508 (A5E1178-09RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0398 | | | | | | | | |

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Darwin Thomas, Business Development Director

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**ANALYTICAL REPORT**

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-15R-20250508 (A5E1178-09RE1)** | | | | **Matrix: GW** | | | | |
| **Sulfate** | **53.5** | 1.00 | 2.00 | mg/L | 2 | 05/13/25 15:42 | EPA 300.0 | |
| **EB-20250509 (A5E1178-10)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | 05/12/25 18:19 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 05/12/25 18:19 | EPA 300.0 | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | 05/12/25 18:19 | EPA 300.0 | |
| **SMW-102-20250509 (A5E1178-11)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0348 | | | | | | | | |
| **Chloride** | **61.2** | 1.00 | 2.00 | mg/L | 2 | 05/12/25 18:41 | EPA 300.0 | |
| **Sulfate** | **12.1** | 1.00 | 2.00 | mg/L | 2 | 05/12/25 18:41 | EPA 300.0 | |
| **SMW-102-20250509 (A5E1178-11RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0450 | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 05/14/25 13:30 | EPA 300.0 | |

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## ANALYTICAL SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-12-20250506 (A5E1178-01RE1)** | | | | **Matrix: GW** | | **Batch: 25E0590** | | |
| **Total Cyanide** | **0.0656** | 0.00500 | 0.0100 | mg/L | 2 | 05/19/25 13:07 | D7511-12 | |
| **SMW-13-20250506 (A5E1178-02)** | | | | **Matrix: GW** | | **Batch: 25E0443** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 05/15/25 13:15 | D7511-12 | |
| **SMW-9-20250507 (A5E1178-03)** | | | | **Matrix: GW** | | **Batch: 25E0443** | | |
| **Total Cyanide** | **0.0353** | 0.00250 | 0.00500 | mg/L | 1 | 05/15/25 13:19 | D7511-12 | |
| **SMW-3-20250507 (A5E1178-04)** | | | | **Matrix: GW** | | **Batch: 25E0443** | | |
| **Total Cyanide** | **0.0114** | 0.00250 | 0.00500 | mg/L | 1 | 05/15/25 13:21 | D7511-12 | |
| **SMW-6-20250507 (A5E1178-05)** | | | | **Matrix: GW** | | **Batch: 25E0443** | | |
| **Total Cyanide** | **0.00331** | 0.00250 | 0.00500 | mg/L | 1 | 05/15/25 13:25 | D7511-12 | **J** |
| **SMW-2-20250509 (A5E1178-06)** | | | | **Matrix: GW** | | **Batch: 25E0443** | | |
| **Total Cyanide** | **0.00278** | 0.00250 | 0.00500 | mg/L | 1 | 05/15/25 13:27 | D7511-12 | **J** |
| **SMW-14-20250508 (A5E1178-07)** | | | | **Matrix: GW** | | **Batch: 25E0443** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 05/15/25 13:31 | D7511-12 | |
| **SMW-19-20250508 (A5E1178-08)** | | | | **Matrix: GW** | | **Batch: 25E0443** | | |
| **Total Cyanide** | **0.00671** | 0.00250 | 0.00500 | mg/L | 1 | 05/15/25 13:33 | D7511-12 | |
| **SMW-15R-20250508 (A5E1178-09RE1)** | | | | **Matrix: GW** | | **Batch: 25E0649** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 05/22/25 17:47 | D7511-12 | |
| **EB-20250509 (A5E1178-10RE1)** | | | | **Matrix: GW** | | **Batch: 25E0649** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 05/22/25 17:57 | D7511-12 | |
| **SMW-102-20250509 (A5E1178-11RE1)** | | | | **Matrix: GW** | | **Batch: 25E0649** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 05/22/25 17:59 | D7511-12 | |

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ANALYTICAL REPORT

AMENDED REPORT

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5E1178 - 09 25 25 1242 |

## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-12-20250506 (A5E1178-01)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |
| **pH** | **7.4** | --- | | pH Units | 1 | 05/12/25 11:16 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **24.8** | --- | | pH Units | 1 | 05/12/25 11:16 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |
| **Conductivity** | **506** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:14 | SM 2510 B | |
| **SMW-13-20250506 (A5E1178-02)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |
| **pH** | **7.5** | --- | | pH Units | 1 | 05/12/25 11:19 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **22.5** | --- | | pH Units | 1 | 05/12/25 11:19 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |
| **Conductivity** | **713** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:15 | SM 2510 B | |
| **SMW-9-20250507 (A5E1178-03)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |
| **pH** | **7.3** | --- | | pH Units | 1 | 05/12/25 11:30 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **20.4** | --- | | pH Units | 1 | 05/12/25 11:30 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |
| **Conductivity** | **493** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:17 | SM 2510 B | |
| **SMW-3-20250507 (A5E1178-04)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |
| **pH** | **7.7** | --- | | pH Units | 1 | 05/12/25 11:33 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **20.2** | --- | | pH Units | 1 | 05/12/25 11:33 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |
| **Conductivity** | **1640** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:19 | SM 2510 B | |
| **SMW-6-20250507 (A5E1178-05)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |
| **pH** | **7.6** | --- | | pH Units | 1 | 05/12/25 11:35 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **19.3** | --- | | pH Units | 1 | 05/12/25 11:35 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |

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ANALYTICAL REPORT

AMENDED REPORT

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5E1178 - 09 25 25 1242 |

## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-6-20250507 (A5E1178-05)** | | | | **Matrix: GW** | | | | |
| **Conductivity** | **695** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:20 | SM 2510 B | |
| **SMW-2-20250509 (A5E1178-06)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |
| **pH** | **8.1** | --- | | pH Units | 1 | 05/12/25 11:37 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **20.6** | --- | | pH Units | 1 | 05/12/25 11:37 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |
| **Conductivity** | **485** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:24 | SM 2510 B | |
| **SMW-14-20250508 (A5E1178-07)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |
| **pH** | **8.0** | --- | | pH Units | 1 | 05/12/25 11:39 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **22.6** | --- | | pH Units | 1 | 05/12/25 11:39 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |
| **Conductivity** | **333** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:25 | SM 2510 B | |
| **SMW-19-20250508 (A5E1178-08)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |
| **pH** | **8.0** | --- | | pH Units | 1 | 05/12/25 11:41 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **21.5** | --- | | pH Units | 1 | 05/12/25 11:41 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |
| **Conductivity** | **308** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:26 | SM 2510 B | |
| **SMW-15R-20250508 (A5E1178-09)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |
| **pH** | **7.4** | --- | | pH Units | 1 | 05/12/25 11:44 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **19.1** | --- | | pH Units | 1 | 05/12/25 11:44 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |
| **Conductivity** | **210** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:27 | SM 2510 B | |
| **EB-20250509 (A5E1178-10)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |

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ANALYTICAL REPORT

AMENDED REPORT

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| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **EB-20250509 (A5E1178-10)** | | | | **Matrix: GW** | | | | |
| **pH** | **6.7** | --- | | pH Units | 1 | 05/12/25 11:50 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **22.2** | --- | | pH Units | 1 | 05/12/25 11:50 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |
| **Conductivity** | **4.87** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:28 | SM 2510 B | |
| **SMW-102-20250509 (A5E1178-11)** | | | | **Matrix: GW** | | | | |
| Batch: 25E0347 | | | | | | | | |
| **pH** | **8.1** | --- | | pH Units | 1 | 05/12/25 11:54 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **20.1** | --- | | pH Units | 1 | 05/12/25 11:54 | SM 4500-H+ B | **H-12** |
| Batch: 25E0364 | | | | | | | | |
| **Conductivity** | **488** | --- | 2.50 | umhos/cm @25degC | 1 | 05/12/25 18:29 | SM 2510 B | |

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**ANALYTICAL REPORT**

AMENDED REPORT

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0851 - EPA 3015A** | | | | | | | | | **Water** | | | |
| **Blank (25E0851-BLK1)** | | | | Prepared: 05/24/25 12:07 Analyzed: 05/24/25 19:31 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Potassium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sodium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25E0851-BS1)** | | | | Prepared: 05/24/25 12:07 Analyzed: 05/24/25 19:48 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Aluminum | 5.57 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | --- | 100 | 80-120% | --- | --- | |
| Calcium | 5.72 | 0.300 | 0.600 | mg/L | 1 | 5.56 | --- | 103 | 80-120% | --- | --- | |
| Potassium | 5.52 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 99 | 80-120% | --- | --- | |
| Sodium | 5.84 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 105 | 80-120% | --- | --- | |
| **Duplicate (25E0851-DUP1)** | | | | Prepared: 05/24/25 12:07 Analyzed: 05/24/25 19:58 | | | | | | | | |
| **QC Source Sample: SMW-12-20250506 (A5E1178-01)** | | | | | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Aluminum | **0.0328** | 0.0250 | 0.0500 | mg/L | 1 | --- | 0.0268 | --- | --- | 20 | 20% | J |
| Calcium | **35.6** | 0.300 | 0.600 | mg/L | 1 | --- | 34.6 | --- | --- | 3 | 20% | |
| Potassium | **1.48** | 0.0500 | 0.100 | mg/L | 1 | --- | 1.42 | --- | --- | 4 | 20% | |
| Sodium | **32.6** | 0.0500 | 0.100 | mg/L | 1 | --- | 31.1 | --- | --- | 5 | 20% | |
| **Matrix Spike (25E0851-MS1)** | | | | Prepared: 05/24/25 12:07 Analyzed: 05/24/25 20:04 | | | | | | | | |
| **QC Source Sample: SMW-12-20250506 (A5E1178-01)** | | | | | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Aluminum | 5.58 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | 0.0268 | 100 | 75-125% | --- | --- | |
| Calcium | 41.6 | 0.300 | 0.600 | mg/L | 1 | 5.56 | 34.6 | 125 | 75-125% | --- | --- | |
| Potassium | 6.87 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 1.42 | 98 | 75-125% | --- | --- | |
| Sodium | 38.5 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 31.1 | **133** | **75-125%** | --- | --- | Q-65 |

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ANALYTICAL REPORT

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|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5E1178 - 09 25 25 1242 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0348 - Method Prep: Aq** | | | | | | | | | Water | | | |
| **Blank (25E0348-BLK1)** | | | Prepared: 05/12/25 09:52 Analyzed: 05/12/25 12:13 | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25E0348-BS1)** | | | Prepared: 05/12/25 09:52 Analyzed: 05/12/25 12:34 | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | 7.88 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 98 | 90-110% | --- | --- | |
| Fluoride | 8.41 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 105 | 90-110% | --- | --- | |
| Sulfate | 7.97 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 100 | 90-110% | --- | --- | |
| **Duplicate (25E0348-DUP1)** | | | Prepared: 05/12/25 09:52 Analyzed: 05/12/25 13:17 | | | | | | | | | |
| QC Source Sample: SMW-12-20250506 (A5E1178-01) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | **77.2** | 2.50 | 5.00 | mg/L | 5 | --- | 77.2 | --- | --- | 0.09 | 10% | |
| Fluoride | ND | 2.50 | 5.00 | mg/L | 5 | --- | ND | --- | --- | --- | 10% | |
| Sulfate | **31.3** | 2.50 | 5.00 | mg/L | 5 | --- | 31.4 | --- | --- | 0.3 | 10% | |
| **Duplicate (25E0348-DUP2)** | | | Prepared: 05/12/25 09:52 Analyzed: 05/12/25 14:22 | | | | | | | | | |
| QC Source Sample: SMW-13-20250506 (A5E1178-02) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | **8.76** | 0.500 | 1.00 | mg/L | 1 | --- | 8.75 | --- | --- | 0.2 | 10% | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | ND | --- | --- | --- | 10% | |
| Sulfate | **20.8** | 0.500 | 1.00 | mg/L | 1 | --- | 20.8 | --- | --- | 0.1 | 10% | |
| **Matrix Spike (25E0348-MS1)** | | | Prepared: 05/12/25 09:52 Analyzed: 05/12/25 13:39 | | | | | | | | | |
| QC Source Sample: SMW-12-20250506 (A5E1178-01) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | 120 | 2.50 | 5.00 | mg/L | 5 | 40.0 | 77.2 | 106 | 90-113% | --- | --- | |
| Fluoride | 42.5 | 2.50 | 5.00 | mg/L | 5 | 40.0 | ND | 106 | 88-120% | --- | --- | |
| Sulfate | 71.6 | 2.50 | 5.00 | mg/L | 5 | 40.0 | 31.4 | 101 | 88-115% | --- | --- | |
| **Matrix Spike (25E0348-MS2)** | | | Prepared: 05/12/25 09:52 Analyzed: 05/12/25 14:44 | | | | | | | | | |

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ANALYTICAL REPORT

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| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0348 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Matrix Spike (25E0348-MS2)** | | | Prepared: 05/12/25 09:52 | | Analyzed: 05/12/25 14:44 | | | | | | | |
| **QC Source Sample: SMW-13-20250506 (A5E1178-02)** | | | | | | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 19.2 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 8.75 | 104 | 90-113% | --- | --- | |
| Fluoride | 10.6 | 0.625 | 1.25 | mg/L | 1 | 10.0 | ND | 106 | 88-120% | --- | --- | |
| Sulfate | 30.8 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 20.8 | 100 | 88-115% | --- | --- | |

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Darwin Thomas, Business Development Director

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**Apex Laboratories, LLC**
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0398 - Method Prep: Aq** | | | | | | | | | Water | | | |
| **Blank (25E0398-BLK1)** | | | Prepared: 05/13/25 09:13 | | Analyzed: 05/13/25 11:01 | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25E0398-BS1)** | | | Prepared: 05/13/25 09:13 | | Analyzed: 05/13/25 11:23 | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Fluoride | 8.42 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 105 | 90-110% | --- | --- | |
| Sulfate | 7.93 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 99 | 90-110% | --- | --- | |
| **Duplicate (25E0398-DUP1)** | | | Prepared: 05/13/25 09:13 | | Analyzed: 05/13/25 13:32 | | | | | | | |
| QC Source Sample: SMW-3-20250507 (A5E1178-04RE1) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | ND | --- | --- | --- | 10% | |
| Sulfate | **16.6** | 0.500 | 1.00 | mg/L | 1 | --- | 16.6 | --- | --- | 0.1 | 10% | |
| **Matrix Spike (25E0398-MS1)** | | | Prepared: 05/13/25 09:13 | | Analyzed: 05/13/25 13:54 | | | | | | | |
| QC Source Sample: SMW-3-20250507 (A5E1178-04RE1) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Fluoride | 10.8 | 0.625 | 1.25 | mg/L | 1 | 10.0 | ND | 108 | 88-120% | --- | --- | |
| Sulfate | 26.8 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 16.6 | 102 | 88-115% | --- | --- | |

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**ANALYTICAL REPORT**

AMENDED REPORT

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| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0450 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Blank (25E0450-BLK1)** | | | Prepared: 05/14/25 09:56 | | Analyzed: 05/14/25 11:42 | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25E0450-BS1)** | | | Prepared: 05/14/25 09:56 | | Analyzed: 05/14/25 12:04 | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Fluoride | 8.30 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 104 | 90-110% | --- | --- | |
| **Duplicate (25E0450-DUP1)** | | | Prepared: 05/14/25 09:56 | | Analyzed: 05/14/25 12:47 | | | | | | | |
| QC Source Sample: SMW-2-20250509 (A5E1178-06RE1) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | ND | --- | --- | --- | 10% | |
| **Duplicate (25E0450-DUP2)** | | | Prepared: 05/14/25 09:56 | | Analyzed: 05/14/25 18:32 | | | | | | | |
| QC Source Sample: Non-SDG (A5E1287-01) | | | | | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | ND | --- | --- | --- | 10% | CONT |
| **Matrix Spike (25E0450-MS1)** | | | Prepared: 05/14/25 09:56 | | Analyzed: 05/14/25 13:08 | | | | | | | |
| QC Source Sample: SMW-2-20250509 (A5E1178-06RE1) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Fluoride | 10.8 | 0.625 | 1.25 | mg/L | 1 | 10.0 | ND | 108 | 88-120% | --- | --- | |
| **Matrix Spike (25E0450-MS2)** | | | Prepared: 05/14/25 09:56 | | Analyzed: 05/14/25 18:53 | | | | | | | |
| QC Source Sample: Non-SDG (A5E1287-01) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Fluoride | 10.6 | 0.625 | 1.25 | mg/L | 1 | 10.0 | ND | 106 | 88-120% | --- | --- | CONT |

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ANALYTICAL REPORT

AMENDED REPORT

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| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0443 - ASTM D7511-12 (W)** | | | | | | | | | Water | | | |
| **Blank (25E0443-BLK1)** | | | Prepared: 05/14/25 08:14 | | Analyzed: 05/15/25 12:07 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25E0443-BS1)** | | | Prepared: 05/14/25 08:14 | | Analyzed: 05/15/25 12:09 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0260 | 0.00250 | 0.00500 | mg/L | 1 | 0.0250 | --- | 104 | 84-116% | --- | --- | |
| **Matrix Spike (25E0443-MS1)** | | | Prepared: 05/14/25 08:14 | | Analyzed: 05/15/25 12:17 | | | | | | | **COMP** |
| QC Source Sample: Non-SDG (A5E1191-08) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.261 | 0.0125 | 0.0250 | mg/L | 5 | 0.125 | 0.119 | 114 | 64-136% | --- | --- | E |
| **Matrix Spike (25E0443-MS2)** | | | Prepared: 05/14/25 08:14 | | Analyzed: 05/15/25 12:27 | | | | | | | |
| QC Source Sample: Non-SDG (A5E1083-01) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.00434 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.00497 | **-3** | **64-136%** | --- | --- | Q-02, J |
| **Matrix Spike Dup (25E0443-MSD1)** | | | Prepared: 05/14/25 08:14 | | Analyzed: 05/15/25 12:19 | | | | | | | **COMP** |
| QC Source Sample: Non-SDG (A5E1191-08) | | | | | | | | | | | | |
| Total Cyanide | 0.270 | 0.0125 | 0.0250 | mg/L | 5 | 0.125 | 0.119 | 121 | 64-136% | 3 | 47% | E |
| **Matrix Spike Dup (25E0443-MSD2)** | | | Prepared: 05/14/25 08:14 | | Analyzed: 05/15/25 12:29 | | | | | | | |
| QC Source Sample: Non-SDG (A5E1083-01) | | | | | | | | | | | | |
| Total Cyanide | 0.00444 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.00497 | **-2** | **64-136%** | 2 | 47% | Q-02, J |

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| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5E1178 - 09 25 25 1242 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0590 - ASTM D7511-12 (W)** | | | | | | | Water | | | | | |
| **Blank (25E0590-BLK1)** | | | Prepared: 05/19/25 08:33 | | Analyzed: 05/19/25 13:01 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25E0590-BS1)** | | | Prepared: 05/19/25 08:33 | | Analyzed: 05/19/25 13:03 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0268 | 0.00250 | 0.00500 | mg/L | 1 | 0.0250 | --- | 107 | 84-116% | --- | --- | |
| **Matrix Spike (25E0590-MS1)** | | | Prepared: 05/19/25 08:33 | | Analyzed: 05/19/25 13:11 | | | | | | | |
| QC Source Sample: SMW-12-20250506 (A5E1178-01RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.112 | 0.00500 | 0.0100 | mg/L | 2 | 0.0500 | 0.0656 | 92 | 64-136% | --- | --- | E |
| **Matrix Spike (25E0590-MS2)** | | | Prepared: 05/19/25 14:45 | | Analyzed: 05/19/25 15:43 | | | | | | | |
| QC Source Sample: Non-SDG (A5E1451-08) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.240 | 0.0125 | 0.0250 | mg/L | 5 | 0.125 | 0.123 | 94 | 64-136% | --- | --- | |
| **Matrix Spike Dup (25E0590-MSD1)** | | | Prepared: 05/19/25 08:33 | | Analyzed: 05/19/25 13:13 | | | | | | | |
| QC Source Sample: SMW-12-20250506 (A5E1178-01RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.113 | 0.00500 | 0.0100 | mg/L | 2 | 0.0500 | 0.0656 | 94 | 64-136% | 0.8 | 47% | E |
| **Matrix Spike Dup (25E0590-MSD2)** | | | Prepared: 05/19/25 14:45 | | Analyzed: 05/19/25 15:45 | | | | | | | |
| QC Source Sample: Non-SDG (A5E1451-08) | | | | | | | | | | | | |
| Total Cyanide | 0.244 | 0.0125 | 0.0250 | mg/L | 5 | 0.125 | 0.123 | 97 | 64-136% | 2 | 47% | |

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0649 - ASTM D7511-12 (W)** | | | | | | | **Water** | | | | | |
| **Blank (25E0649-BLK1)** | | | Prepared: 05/20/25 08:49 | | Analyzed: 05/22/25 17:41 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25E0649-BS1)** | | | Prepared: 05/20/25 08:49 | | Analyzed: 05/22/25 17:43 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0243 | 0.00250 | 0.00500 | mg/L | 1 | 0.0250 | --- | 97 | 84-116% | --- | --- | |
| **Matrix Spike (25E0649-MS1)** | | | Prepared: 05/20/25 08:49 | | Analyzed: 05/22/25 17:51 | | | | | | | |
| QC Source Sample: SMW-15R-20250508 (A5E1178-09RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0198 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 79 | 64-136% | --- | --- | |
| **Matrix Spike Dup (25E0649-MSD1)** | | | Prepared: 05/20/25 08:49 | | Analyzed: 05/22/25 17:53 | | | | | | | |
| QC Source Sample: SMW-15R-20250508 (A5E1178-09RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0195 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 77 | 64-136% | 2 | 47% | |

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| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5E1178 - 09 25 25 1242 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0347 - Method Prep: Aq** | | | | | | | | | Water | | | |
| **Duplicate (25E0347-DUP1)** | | | Prepared: 05/12/25 09:50 | Analyzed: 05/12/25 11:17 | | | | | | | | |
| QC Source Sample: SMW-12-20250506 (A5E1178-01) | | | | | | | | | | | | |
| SM 4500-H+ B | | | | | | | | | | | | |
| pH | **7.4** | --- | | pH Units | 1 | --- | 7.4 | --- | --- | 0.1 | 2% | H-12 |
| pH Temperature (deg C) | **24.6** | --- | | pH Units | 1 | --- | 24.8 | --- | --- | 0.8 | 30% | H-12 |
| **Duplicate (25E0347-DUP2)** | | | Prepared: 05/12/25 09:50 | Analyzed: 05/12/25 11:54 | | | | | | | | |
| QC Source Sample: SMW-102-20250509 (A5E1178-11) | | | | | | | | | | | | |
| SM 4500-H+ B | | | | | | | | | | | | |
| pH | **8.1** | --- | | pH Units | 1 | --- | 8.1 | --- | --- | 0.1 | 2% | H-12 |
| pH Temperature (deg C) | **19.8** | --- | | pH Units | 1 | --- | 20.1 | --- | --- | 2 | 30% | H-12 |
| **Reference (25E0347-SRM1)** | | | Prepared: 05/12/25 09:50 | Analyzed: 05/12/25 11:14 | | | | | | | | |
| SM 4500-H+ B | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 100 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 20.0 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |
| **Reference (25E0347-SRM2)** | | | Prepared: 05/12/25 09:50 | Analyzed: 05/12/25 11:52 | | | | | | | | |
| SM 4500-H+ B | | | | | | | | | | | | |
| pH | 8.0 | --- | | pH Units | 1 | 8.00 | | 100 | 98.875-101.125% | --- | --- | |
| pH Temperature (deg C) | 20.4 | --- | | pH Units | 1 | 20.0 | | 102 | 50-200% | --- | --- | |
| **Reference (25E0347-SRM3)** | | | Prepared: 05/12/25 09:50 | Analyzed: 05/12/25 11:55 | | | | | | | | |
| SM 4500-H+ B | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 100 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 20.2 | --- | | pH Units | 1 | 20.0 | | 101 | 50-200% | --- | --- | |
| **Reference (25E0347-SRM4)** | | | Prepared: 05/12/25 09:50 | Analyzed: 05/12/25 14:01 | | | | | | | | |
| SM 4500-H+ B | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 100 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 20.1 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |
| **Reference (25E0347-SRM5)** | | | Prepared: 05/12/25 09:50 | Analyzed: 05/12/25 14:07 | | | | | | | | |
| SM 4500-H+ B | | | | | | | | | | | | |

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0347 - Method Prep: Aq** | | | | | | | | **Water** | | | | |
| **Reference (25E0347-SRM5)** | | | Prepared: 05/12/25 09:50 | Analyzed: 05/12/25 14:07 | | | | | | | | |
| pH | 8.0 | --- | | pH Units | 1 | 8.00 | | 100 | 98.875-101.125% | --- | --- | |
| pH Temperature (deg C) | 20.3 | --- | | pH Units | 1 | 20.0 | | 102 | 50-200% | --- | --- | |
| **Reference (25E0347-SRM6)** | | | Prepared: 05/12/25 09:50 | Analyzed: 05/12/25 17:41 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 100 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 19.6 | --- | | pH Units | 1 | 20.0 | | 98 | 50-200% | --- | --- | |
| **Reference (25E0347-SRM7)** | | | Prepared: 05/12/25 09:50 | Analyzed: 05/12/25 17:53 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 8.0 | --- | | pH Units | 1 | 8.00 | | 100 | 98.875-101.125% | --- | --- | |
| pH Temperature (deg C) | 20.0 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |

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**ANALYTICAL REPORT**

AMENDED REPORT

**Anchor QEA, LLC**
**6720 SW Macadam Ave. Suite 300**
**Portland, OR 97219**

Project: **Alcoa - Intalco**
Project Number: **230002-05.06**
Project Manager: **Ali Judkins**

**Report ID:**
**A5E1178 - 09 25 25 1242**

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25E0364 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Blank (25E0364-BLK1)** | | | Prepared: 05/12/25 12:08 | | Analyzed: 05/12/25 18:08 | | | | | | | |
| SM 2510 B | | | | | | | | | | | | |
| Conductivity | ND | --- | 2.50 | umhos/cm @25degC | 1 | --- | --- | --- | --- | --- | --- | |
| **Duplicate (25E0364-DUP1)** | | | Prepared: 05/12/25 12:08 | | Analyzed: 05/12/25 18:16 | | | | | | | |
| QC Source Sample: SMW-13-20250506 (A5E1178-02) | | | | | | | | | | | | |
| SM 2510 B | | | | | | | | | | | | |
| Conductivity | **712** | --- | 2.50 | umhos/cm @25degC | 1 | --- | 713 | --- | --- | 0.1 | 3% | |
| **Reference (25E0364-SRM1)** | | | Prepared: 05/12/25 12:08 | | Analyzed: 05/12/25 18:11 | | | | | | | |
| SM 2510 B | | | | | | | | | | | | |
| Conductivity | 1430 | --- | | umhos/cm @25degC | 1 | 1410 | | 101 | 95-105% | --- | --- | |

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Darwin Thomas, Business Development Director

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**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

**Anchor QEA, LLC**
**6720 SW Macadam Ave. Suite 300**
**Portland, OR 97219**

Project: **Alcoa - Intalco**
Project Number: **230002-05.06**
Project Manager: **Ali Judkins**

**Report ID:**
**A5E1178 - 09 25 25 1242**

## SAMPLE PREPARATION INFORMATION

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25E0851 | | | | | | | |
| A5E1178-01 | GW | EPA 6020B | 05/06/25 15:05 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-02 | GW | EPA 6020B | 05/06/25 13:35 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-02RE1 | GW | EPA 6020B | 05/06/25 13:35 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-03 | GW | EPA 6020B | 05/07/25 13:40 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-04 | GW | EPA 6020B | 05/07/25 11:00 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-04RE1 | GW | EPA 6020B | 05/07/25 11:00 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-05 | GW | EPA 6020B | 05/07/25 12:28 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-05RE1 | GW | EPA 6020B | 05/07/25 12:28 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-06 | GW | EPA 6020B | 05/09/25 12:30 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-07 | GW | EPA 6020B | 05/08/25 10:15 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-08 | GW | EPA 6020B | 05/08/25 11:45 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-09 | GW | EPA 6020B | 05/08/25 13:20 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-10 | GW | EPA 6020B | 05/09/25 10:15 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5E1178-11 | GW | EPA 6020B | 05/09/25 12:30 | 05/24/25 12:07 | 45mL/50mL | 45mL/50mL | 1.00 |

### Anions by Ion Chromatography

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25E0348 | | | | | | | |
| A5E1178-01 | GW | EPA 300.0 | 05/06/25 15:05 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-02 | GW | EPA 300.0 | 05/06/25 13:35 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-03 | GW | EPA 300.0 | 05/07/25 13:40 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-04 | GW | EPA 300.0 | 05/07/25 11:00 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-05 | GW | EPA 300.0 | 05/07/25 12:28 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-06 | GW | EPA 300.0 | 05/09/25 12:30 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-07 | GW | EPA 300.0 | 05/08/25 10:15 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-08 | GW | EPA 300.0 | 05/08/25 11:45 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-09 | GW | EPA 300.0 | 05/08/25 13:20 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-10 | GW | EPA 300.0 | 05/09/25 10:15 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-11 | GW | EPA 300.0 | 05/09/25 12:30 | 05/12/25 09:52 | 5mL/5mL | 5mL/5mL | 1.00 |
| Batch: 25E0398 | | | | | | | |
| A5E1178-01RE1 | GW | EPA 300.0 | 05/06/25 15:05 | 05/13/25 09:13 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-03RE1 | GW | EPA 300.0 | 05/07/25 13:40 | 05/13/25 09:13 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-04RE1 | GW | EPA 300.0 | 05/07/25 11:00 | 05/13/25 09:13 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-07RE1 | GW | EPA 300.0 | 05/08/25 10:15 | 05/13/25 09:13 | 5mL/5mL | 5mL/5mL | 1.00 |

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Darwin Thomas, Business Development Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## SAMPLE PREPARATION INFORMATION

### Anions by Ion Chromatography

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| A5E1178-08RE1 | GW | EPA 300.0 | 05/08/25 11:45 | 05/13/25 09:13 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-09RE1 | GW | EPA 300.0 | 05/08/25 13:20 | 05/13/25 09:13 | 5mL/5mL | 5mL/5mL | 1.00 |
| Batch: 25E0450 | | | | | | | |
| A5E1178-06RE1 | GW | EPA 300.0 | 05/09/25 12:30 | 05/14/25 09:56 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5E1178-11RE1 | GW | EPA 300.0 | 05/09/25 12:30 | 05/14/25 09:56 | 5mL/5mL | 5mL/5mL | 1.00 |

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Prep: ASTM D7511-12 (W)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25E0443 | | | | | | | |
| A5E1178-02 | GW | D7511-12 | 05/06/25 13:35 | 05/14/25 08:14 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5E1178-03 | GW | D7511-12 | 05/07/25 13:40 | 05/14/25 08:14 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5E1178-04 | GW | D7511-12 | 05/07/25 11:00 | 05/14/25 08:14 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5E1178-05 | GW | D7511-12 | 05/07/25 12:28 | 05/14/25 08:14 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5E1178-06 | GW | D7511-12 | 05/09/25 12:30 | 05/14/25 08:14 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5E1178-07 | GW | D7511-12 | 05/08/25 10:15 | 05/14/25 08:14 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5E1178-08 | GW | D7511-12 | 05/08/25 11:45 | 05/14/25 08:14 | 10mL/10mL | 10mL/10mL | 1.00 |
| Batch: 25E0590 | | | | | | | |
| A5E1178-01RE1 | GW | D7511-12 | 05/06/25 15:05 | 05/19/25 08:33 | 10mL/10mL | 10mL/10mL | 1.00 |
| Batch: 25E0649 | | | | | | | |
| A5E1178-09RE1 | GW | D7511-12 | 05/08/25 13:20 | 05/20/25 08:49 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5E1178-10RE1 | GW | D7511-12 | 05/09/25 10:15 | 05/20/25 08:49 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5E1178-11RE1 | GW | D7511-12 | 05/09/25 12:30 | 05/20/25 08:49 | 10mL/10mL | 10mL/10mL | 1.00 |

### Conventional Chemistry Parameters

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25E0347 | | | | | | | |
| A5E1178-01 | GW | SM 4500-H+ B | 05/06/25 15:05 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |
| A5E1178-02 | GW | SM 4500-H+ B | 05/06/25 13:35 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |
| A5E1178-03 | GW | SM 4500-H+ B | 05/07/25 13:40 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |
| A5E1178-04 | GW | SM 4500-H+ B | 05/07/25 11:00 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |
| A5E1178-05 | GW | SM 4500-H+ B | 05/07/25 12:28 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |
| A5E1178-06 | GW | SM 4500-H+ B | 05/09/25 12:30 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |

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**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

AMENDED REPORT

**Anchor QEA, LLC**
**6720 SW Macadam Ave. Suite 300**
**Portland, OR 97219**

Project: **Alcoa - Intalco**
Project Number: **230002-05.06**
Project Manager: **Ali Judkins**

**Report ID:**
**A5E1178 - 09 25 25 1242**

## SAMPLE PREPARATION INFORMATION

### Conventional Chemistry Parameters

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| A5E1178-07 | GW | SM 4500-H+ B | 05/08/25 10:15 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |
| A5E1178-08 | GW | SM 4500-H+ B | 05/08/25 11:45 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |
| A5E1178-09 | GW | SM 4500-H+ B | 05/08/25 13:20 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |
| A5E1178-10 | GW | SM 4500-H+ B | 05/09/25 10:15 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |
| A5E1178-11 | GW | SM 4500-H+ B | 05/09/25 12:30 | 05/12/25 09:50 | 20mL/20mL | 20mL/20mL | NA |
| Batch: 25E0364 | | | | | | | |
| A5E1178-01 | GW | SM 2510 B | 05/06/25 15:05 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |
| A5E1178-02 | GW | SM 2510 B | 05/06/25 13:35 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |
| A5E1178-03 | GW | SM 2510 B | 05/07/25 13:40 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |
| A5E1178-04 | GW | SM 2510 B | 05/07/25 11:00 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |
| A5E1178-05 | GW | SM 2510 B | 05/07/25 12:28 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |
| A5E1178-06 | GW | SM 2510 B | 05/09/25 12:30 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |
| A5E1178-07 | GW | SM 2510 B | 05/08/25 10:15 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |
| A5E1178-08 | GW | SM 2510 B | 05/08/25 11:45 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |
| A5E1178-09 | GW | SM 2510 B | 05/08/25 13:20 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |
| A5E1178-10 | GW | SM 2510 B | 05/09/25 10:15 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |
| A5E1178-11 | GW | SM 2510 B | 05/09/25 12:30 | 05/12/25 12:08 | 40mL/40mL | 40mL/40mL | NA |

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| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

| | |
|---|---|
| **COMP** | Analyzed sample is a composite of discrete samples that was performed in the laboratory. |
| **CONT** | The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System. |
| **E** | Estimated Value. The result is above the calibration range of the instrument. |
| **H-12** | Sample Analysis or Filtration was performed >15 minutes after sample collection. Consult regulator or permit manager to determine the usability of data for intended use. |
| **J** | Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified DL. |
| **Q-02** | Spike recovery is outside of established control limits due to matrix interference. |
| **Q-65** | Spike recovery is estimated due to the high analyte concentration of the source sample. |

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## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting and Detection Limits: Default Limits**

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Darwin Thomas, Business Development Director

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ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

**Benzofluoranthene Isomer Reporting:**

Due to coelutions present on the analytical column, the results reported for Benzo(b+j)fluoranthene(s) represent the concentraton of both the Benzo(b)fluoranthene and Benzo(j)fluoranthene isomers. Calibration, validation and accreditation are based on the Benzo(b)fluoranthene isomer.

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

**Decanted Samples:**

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories



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|---|---|---|
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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories



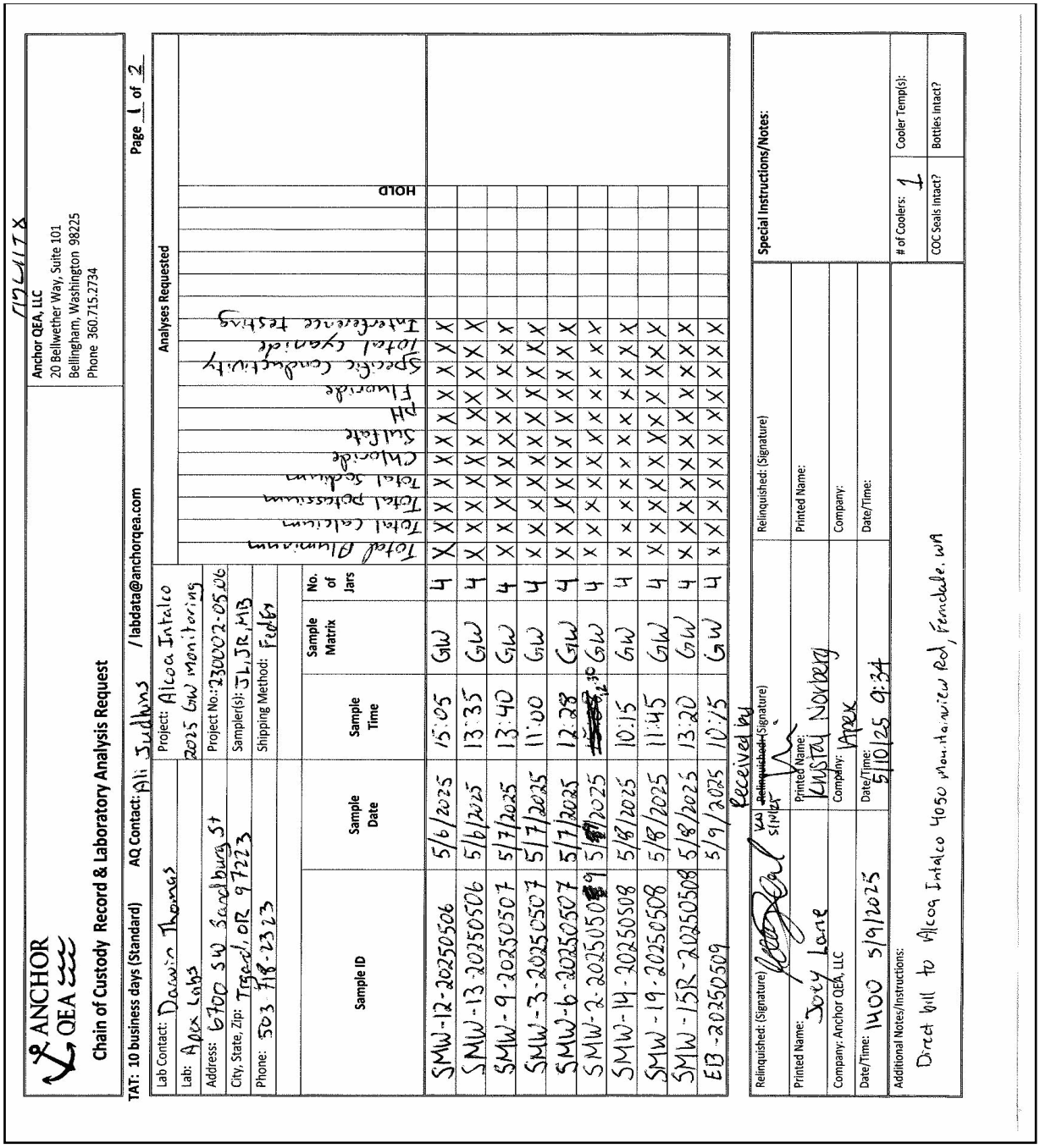
Darwin Thomas, Business Development Director

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**Apex Laboratories, LLC**

**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**


| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |



ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Page 1 of 2

Anchor QEA, LLC
20 Bellwether Way, Suite 101
Bellingham, Washington 98225
Phone 360.715.2734

TAT: 10 business days (Standard) AQ Contact: Ali Judkins /labdata@anchorqea.com

Lab Contact: Darwin Thomas
Lab: Apex Labs
Address: 6700 SW Sandburg St
City, State, Zip: Tigard, OR 97223
Phone: 503 718 2323

Project: Alcoa Intalco
2025 GW Monitoring
Project No.: 230002-05.06
Sampler(s): TL, JR, MB
Shipping Method: Fedex

Analyses Requested: Total Aluminum; Total Calcium; Total Potassium; Total Sodium; Chloride; Sulfate; pH; Fluoride; Specific Conductivity; Total Cyanide; Interference Testing; HOLD

| Sample ID | Sample Date | Sample Time | Sample Matrix | No. of Jars |
|---|---|---|---|---|
| SMW-12-20250506 | 5/6/2025 | 15:05 | GW | 4 |
| SMW-13-20250506 | 5/6/2025 | 13:35 | GW | 4 |
| SMW-9-20250507 | 5/7/2025 | 13:40 | GW | 4 |
| SMW-3-20250507 | 5/7/2025 | 11:00 | GW | 4 |
| SMW-6-20250507 | 5/7/2025 | 12:28 | GW | 4 |
| SMW-2-20250509 | 5/9/2025 | [illegible] | GW | 4 |
| SMW-14-20250508 | 5/8/2025 | 10:15 | GW | 4 |
| SMW-19-20250508 | 5/8/2025 | 11:45 | GW | 4 |
| SMW-15R-20250508 | 5/8/2025 | 13:20 | GW | 4 |
| EB-20250509 | 5/9/2025 | 10:15 | GW | 4 |

Relinquished: (Signature) [illegible] Received by
Printed Name: Joey Lane
Company: Anchor QEA, LLC
Date/Time: 1400 5/9/2025

Relinquished: (Signature)
Printed Name: Kristi Norberg
Company: Apex
Date/Time: 5/10/25 9:34

Special Instructions/Notes:

# of Coolers: 1
Cooler Temp(s):
COC Seals Intact?
Bottles Intact?

Additional Notes/Instructions:
Direct bill to Alcoa Intalco 4050 Mountain View Rd, Ferndale, WA

Apex Laboratories

Darwin Thomas, Business Development Director

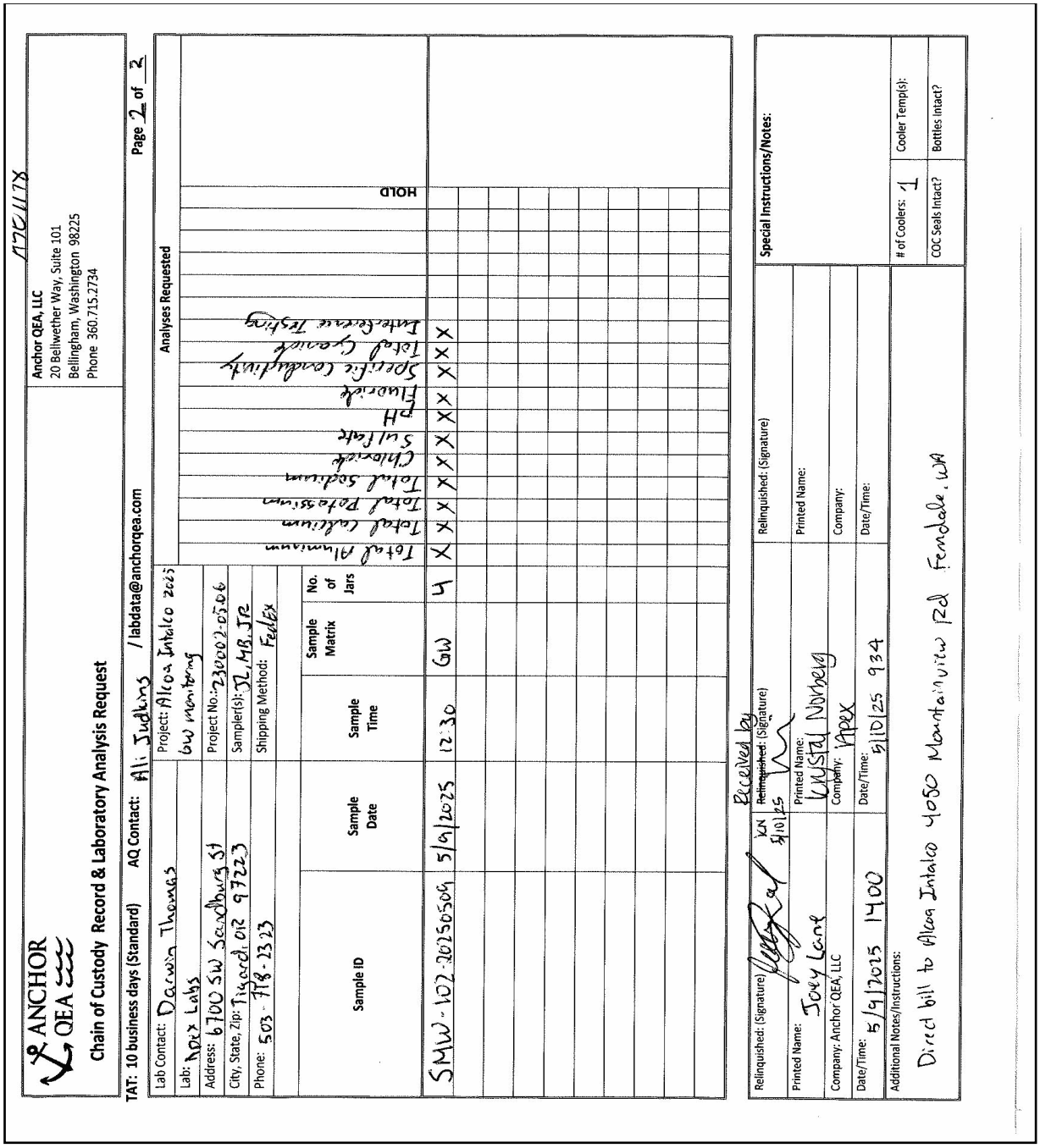
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**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

# ANALYTICAL REPORT

AMENDED REPORT

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |



ANCHOR QEA
Chain of Custody Record & Laboratory Analysis Request
Page 2 of 2
TAT: 10 business days (Standard) AQ Contact: Ali Judkins /labdata@anchorqea.com
Anchor QEA, LLC
20 Bellwether Way, Suite 101
Bellingham, Washington 98225
Phone 360.715.2734
Lab Contact: Darwin Thomas
Lab: Nor Labs
Address: 6700 SW Sandburg St
City, State, Zip: Tigard, OR 97223
Phone: 503-718-2323
Project: Alcoa Intalco 2025 GW monitoring
Project No: 230002-05.06
Sampler(s): JL, MB, TR
Shipping Method: FedEx
Analyses Requested
Sample ID | Sample Date | Sample Time | Sample Matrix | No. of Jars | Total Aluminum | Total Calcium | Total Potassium | Total Sodium | Chloride | Sulfate | pH | Fluoride | Specific Conductivity | Total Cyanide | Intact/Grease Testing | HOLD
SMW-102-20250509 | 5/9/2025 | 12:30 | GW | 4 | X | X | X | X | X | X | X | X | X | X | X |
Relinquished: (Signature) | Date: 5/10/25
Printed Name: Tony Lane
Company: Anchor QEA, LLC
Date/Time: 5/9/2025 1400
Received by
Relinquished: (Signature)
Printed Name: Krystal Vinyard
Company: Apex
Date/Time: 5/10/25 934
Relinquished: (Signature)
Printed Name:
Company:
Date/Time:
Special Instructions/Notes:
# of Coolers: 1
Cooler Temp(s):
COC Seals Intact?
Bottles Intact?
Additional Notes/Instructions:
Direct bill to Alcoa Intalco 4050 Mountain Rd Ferndale, WA

Apex Laboratories

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Darwin Thomas, Business Development Director

**Apex Laboratories, LLC**
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**ANALYTICAL REPORT**

AMENDED REPORT

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|---|---|---|
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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5E1178 - 09 25 25 1242** |

## APEX LABS COOLER RECEIPT FORM

**Client:** Anchor QEA Element WO#: A5 E1178

**Project/Project #:** Alcoa Intalco 2025 GW monitoring

**Delivery Info:**

Date/time received: 5/10/25 @ 9:34 By: KN

Delivered by: Apex__Client__ESS___FedEx X UPS__Radio___Morgan ___SDS___Evergreen___Other ___

From USDA Regulated Origin? Yes _____ No √

**Cooler Inspection** Date/time inspected: 5/10/25 @ 935 By: KN

Chain of Custody included? Yes √ No _____

Signed/dated by client? Yes √ No _____

Contains USDA Reg. Soils? Yes _____ No √ Unsure (email RegSoils) _____

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 3.9 | | | | | | |
| Custody seals? (Y/N) | N | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | Y | | | | | | |
| Ice type: (Gel/Real/Other) | Real | | | | | | |
| Condition (In/Out): | In | | | | | | |

Cooler out of temp? (Y(N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

**Sample Inspection:** Date/time inspected: 5/12/25 @ 0838 By: KN

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes X No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments _____

Water samples: pH checked: Yes X No ___ NA ___ pH appropriate? Yes ___ No X NA ___ pH ID: A23I172 A24J265

Comments: ph 9 on 125ml NaOH brown poly for ~~SMW-13~~ SMW-13 AR 5/12

2885 0201 4198

Labeled by: KN Witness: MW Cooler Inspected by: KN

Form Y-003 R-02 -

Apex Laboratories

Darwin Thomas

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Darwin Thomas, Business Development Director

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

Tuesday, October 7, 2025

Ali Judkins
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 300
Portland, OR 97219

RE: A5H1062 - Alcoa - Intalco - 230002-05.06

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5H1062, which was received by the laboratory on 8/8/2025 at 10:04:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information |
|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. |
| (See Cooler Receipt Form for details) |
| Default Cooler 0.8 degC |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Darwin Thomas, Business Development Director

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**Apex Laboratories, LLC**
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| SMW-14-20250805 | A5H1062-01 | Water | 08/05/25 12:45 | 08/08/25 10:04 |
| SMW-12-20250805 | A5H1062-02 | Water | 08/05/25 16:07 | 08/08/25 10:04 |
| SMW-2-20250806 | A5H1062-03 | Water | 08/06/25 15:41 | 08/08/25 10:04 |
| SMW-3-20250806 | A5H1062-04 | Water | 08/06/25 14:25 | 08/08/25 10:04 |
| SMW-9-20250806 | A5H1062-05 | Water | 08/06/25 09:15 | 08/08/25 10:04 |
| SMW-15R-20250807 | A5H1062-06 | Water | 08/07/25 09:55 | 08/08/25 10:04 |
| SMW-115R-20250807 | A5H1062-07 | Water | 08/07/25 09:45 | 08/08/25 10:04 |
| SMW-6-20250807 | A5H1062-08 | Water | 08/07/25 11:03 | 08/08/25 10:04 |
| SMW-19-20250807 | A5H1062-09 | Water | 08/07/25 12:40 | 08/08/25 10:04 |
| RB-20250807 | A5H1062-10 | Water | 08/07/25 13:00 | 08/08/25 10:04 |
| SMW-13-20250807 | A5H1062-11 | Water | 08/07/25 14:18 | 08/08/25 10:04 |

Apex Laboratories



Darwin Thomas, Business Development Director

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503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-14-20250805 (A5H1062-01)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0723 | | | | | | | | |
| **Aluminum** | **0.0590** | 0.0250 | 0.0500 | mg/L | 1 | 08/21/25 21:05 | EPA 6020B | |
| **Calcium** | **33.5** | 0.300 | 0.600 | mg/L | 1 | 08/21/25 21:05 | EPA 6020B | |
| **Potassium** | **3.26** | 0.0500 | 0.100 | mg/L | 1 | 08/21/25 21:05 | EPA 6020B | |
| **Sodium** | **12.1** | 0.0500 | 0.100 | mg/L | 1 | 08/21/25 21:05 | EPA 6020B | |
| **SMW-12-20250805 (A5H1062-02)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| **Aluminum** | **0.0515** | 0.0250 | 0.0500 | mg/L | 1 | 08/20/25 21:30 | EPA 6020B | |
| **Calcium** | **39.1** | 0.300 | 0.600 | mg/L | 1 | 08/20/25 21:30 | EPA 6020B | |
| **Potassium** | **1.65** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 21:30 | EPA 6020B | |
| **Sodium** | **35.3** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 21:30 | EPA 6020B | |
| **SMW-2-20250806 (A5H1062-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| **Aluminum** | **0.567** | 0.0250 | 0.0500 | mg/L | 1 | 08/20/25 21:47 | EPA 6020B | |
| **Calcium** | **44.2** | 0.300 | 0.600 | mg/L | 1 | 08/20/25 21:47 | EPA 6020B | |
| **Potassium** | **3.50** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 21:47 | EPA 6020B | |
| **Sodium** | **14.9** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 21:47 | EPA 6020B | |
| **SMW-3-20250806 (A5H1062-04)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | 08/20/25 21:52 | EPA 6020B | |
| **Potassium** | **4.71** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 21:52 | EPA 6020B | |
| **Sodium** | **43.3** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 21:52 | EPA 6020B | |
| **SMW-3-20250806 (A5H1062-04RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| **Calcium** | **110** | 3.00 | 6.00 | mg/L | 10 | 08/21/25 11:54 | EPA 6020B | |
| **SMW-9-20250806 (A5H1062-05)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| **Aluminum** | **0.0257** | 0.0250 | 0.0500 | mg/L | 1 | 08/20/25 21:57 | EPA 6020B | **J** |
| **Calcium** | **48.4** | 0.300 | 0.600 | mg/L | 1 | 08/20/25 21:57 | EPA 6020B | |
| **Potassium** | **2.22** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 21:57 | EPA 6020B | |

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Darwin Thomas, Business Development Director

**Apex Laboratories, LLC**
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-9-20250806 (A5H1062-05)** | | | | **Matrix: Water** | | | | |
| **Sodium** | **16.7** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 21:57 | EPA 6020B | |
| **SMW-15R-20250807 (A5H1062-06)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| **Aluminum** | **0.181** | 0.0250 | 0.0500 | mg/L | 1 | 08/20/25 22:03 | EPA 6020B | |
| **Calcium** | **16.4** | 0.300 | 0.600 | mg/L | 1 | 08/20/25 22:03 | EPA 6020B | |
| **Potassium** | **1.23** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:03 | EPA 6020B | |
| **Sodium** | **11.6** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:03 | EPA 6020B | |
| **SMW-115R-20250807 (A5H1062-07)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| **Aluminum** | **0.154** | 0.0250 | 0.0500 | mg/L | 1 | 08/20/25 22:08 | EPA 6020B | |
| **Calcium** | **15.9** | 0.300 | 0.600 | mg/L | 1 | 08/20/25 22:08 | EPA 6020B | |
| **Potassium** | **1.19** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:08 | EPA 6020B | |
| **Sodium** | **11.2** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:08 | EPA 6020B | |
| **SMW-6-20250807 (A5H1062-08)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| **Aluminum** | **0.386** | 0.0250 | 0.0500 | mg/L | 1 | 08/20/25 22:14 | EPA 6020B | |
| **Potassium** | **2.30** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:14 | EPA 6020B | |
| **Sodium** | **18.6** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:14 | EPA 6020B | |
| **SMW-6-20250807 (A5H1062-08RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| **Calcium** | **73.7** | 3.00 | 6.00 | mg/L | 10 | 08/21/25 12:00 | EPA 6020B | |
| **SMW-19-20250807 (A5H1062-09)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | 08/20/25 22:19 | EPA 6020B | |
| **Calcium** | **24.1** | 0.300 | 0.600 | mg/L | 1 | 08/20/25 22:19 | EPA 6020B | |
| **Potassium** | **5.02** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:19 | EPA 6020B | |
| **Sodium** | **11.5** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:19 | EPA 6020B | |
| **RB-20250807 (A5H1062-10)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |

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Darwin Thomas, Business Development Director

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**ANALYTICAL REPORT**

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **RB-20250807 (A5H1062-10)** | | | | **Matrix: Water** | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | 08/20/25 22:25 | EPA 6020B | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | 08/20/25 22:25 | EPA 6020B | |
| **Potassium** | **0.0669** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:25 | EPA 6020B | **J** |
| **Sodium** | **0.130** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:25 | EPA 6020B | |
| **SMW-13-20250807 (A5H1062-11)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | 08/20/25 22:30 | EPA 6020B | |
| **Potassium** | **3.47** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:30 | EPA 6020B | |
| **Sodium** | **19.4** | 0.0500 | 0.100 | mg/L | 1 | 08/20/25 22:30 | EPA 6020B | |
| **SMW-13-20250807 (A5H1062-11RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0686 | | | | | | | | |
| **Calcium** | **76.5** | 3.00 | 6.00 | mg/L | 10 | 08/21/25 12:05 | EPA 6020B | |

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-14-20250805 (A5H1062-01)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Chloride** | **8.87** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 16:00 | EPA 300.0 | |
| **Sulfate** | **39.9** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 16:00 | EPA 300.0 | |
| **SMW-12-20250805 (A5H1062-02)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Sulfate** | **33.7** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 18:09 | EPA 300.0 | |
| **SMW-12-20250805 (A5H1062-02RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Chloride** | **89.5** | 5.00 | 10.0 | mg/L | 10 | 08/08/25 17:05 | EPA 300.0 | |
| **SMW-2-20250806 (A5H1062-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Sulfate** | **12.2** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 18:52 | EPA 300.0 | |
| **SMW-2-20250806 (A5H1062-03RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Chloride** | **58.9** | 5.00 | 10.0 | mg/L | 10 | 08/08/25 18:31 | EPA 300.0 | |
| **SMW-3-20250806 (A5H1062-04)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Sulfate** | **12.8** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 19:35 | EPA 300.0 | |
| **SMW-3-20250806 (A5H1062-04RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Chloride** | **221** | 5.00 | 10.0 | mg/L | 10 | 08/08/25 19:14 | EPA 300.0 | |
| **SMW-9-20250806 (A5H1062-05)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Chloride** | **11.1** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 19:57 | EPA 300.0 | |
| **SMW-9-20250806 (A5H1062-05RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0316 | | | | | | | | |
| **Sulfate** | **79.1** | 2.50 | 5.00 | mg/L | 5 | 08/11/25 13:13 | EPA 300.0 | |

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-15R-20250807 (A5H1062-06)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Chloride** | **5.60** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 20:19 | EPA 300.0 | |
| **SMW-15R-20250807 (A5H1062-06RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0316 | | | | | | | | |
| **Sulfate** | **52.2** | 1.00 | 2.00 | mg/L | 2 | 08/11/25 14:18 | EPA 300.0 | |
| **SMW-115R-20250807 (A5H1062-07)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Chloride** | **5.37** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 20:40 | EPA 300.0 | |
| **SMW-115R-20250807 (A5H1062-07RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0316 | | | | | | | | |
| **Sulfate** | **51.9** | 1.00 | 2.00 | mg/L | 2 | 08/11/25 14:39 | EPA 300.0 | |
| **SMW-6-20250807 (A5H1062-08)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Chloride** | **23.7** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 21:02 | EPA 300.0 | |
| **Sulfate** | **28.0** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 21:02 | EPA 300.0 | |
| **SMW-19-20250807 (A5H1062-09RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0316 | | | | | | | | |
| **Chloride** | **7.24** | 0.500 | 1.00 | mg/L | 1 | 08/11/25 15:01 | EPA 300.0 | |
| **Sulfate** | **37.3** | 0.500 | 1.00 | mg/L | 1 | 08/11/25 15:01 | EPA 300.0 | |
| **RB-20250807 (A5H1062-10RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0316 | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | 08/11/25 15:23 | EPA 300.0 | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | 08/11/25 15:23 | EPA 300.0 | |
| **SMW-13-20250807 (A5H1062-11)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0272 | | | | | | | | |
| **Chloride** | **8.30** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 22:49 | EPA 300.0 | |
| **Sulfate** | **18.6** | 0.500 | 1.00 | mg/L | 1 | 08/08/25 22:49 | EPA 300.0 | |

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ANALYTICAL REPORT

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| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5H1062 - 10 07 25 1134 |

## ANALYTICAL SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-14-20250805 (A5H1062-01)** | | | | **Matrix: Water** | | **Batch: 25H0377** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 08/12/25 17:05 | D7511-12 | |
| **SMW-12-20250805 (A5H1062-02)** | | | | **Matrix: Water** | | **Batch: 25H0377** | | |
| **Total Cyanide** | **0.0610** | 0.00500 | 0.0100 | mg/L | 2 | 08/12/25 17:13 | D7511-12 | |
| **SMW-2-20250806 (A5H1062-03)** | | | | **Matrix: Water** | | **Batch: 25H0377** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 08/12/25 17:17 | D7511-12 | |
| **SMW-3-20250806 (A5H1062-04)** | | | | **Matrix: Water** | | **Batch: 25H0377** | | |
| **Total Cyanide** | **0.00264** | 0.00250 | 0.00500 | mg/L | 1 | 08/12/25 17:19 | D7511-12 | **J** |
| **SMW-9-20250806 (A5H1062-05RE1)** | | | | **Matrix: Water** | | **Batch: 25H0394** | | **PRES** |
| **Total Cyanide** | **0.0416** | 0.00500 | 0.0100 | mg/L | 2 | 08/14/25 14:43 | D7511-12 | **M-02** |
| **SMW-15R-20250807 (A5H1062-06RE1)** | | | | **Matrix: Water** | | **Batch: 25H0394** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 08/14/25 14:47 | D7511-12 | |
| **SMW-115R-20250807 (A5H1062-07RE1)** | | | | **Matrix: Water** | | **Batch: 25H0394** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 08/14/25 14:49 | D7511-12 | |
| **SMW-6-20250807 (A5H1062-08RE1)** | | | | **Matrix: Water** | | **Batch: 25H0394** | | **PRES** |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 08/14/25 14:53 | D7511-12 | |
| **SMW-19-20250807 (A5H1062-09RE1)** | | | | **Matrix: Water** | | **Batch: 25H0394** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 08/14/25 14:55 | D7511-12 | |
| **RB-20250807 (A5H1062-10RE1)** | | | | **Matrix: Water** | | **Batch: 25H0394** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 08/14/25 14:59 | D7511-12 | |
| **SMW-13-20250807 (A5H1062-11RE1)** | | | | **Matrix: Water** | | **Batch: 25H0394** | | **PRES** |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 08/14/25 15:03 | D7511-12 | |

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ANALYTICAL REPORT

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| Anchor QEA, LLC | Project: Alcoa - Intalco | |
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| Portland, OR 97219 | Project Manager: Ali Judkins | A5H1062 - 10 07 25 1134 |

## ANALYTICAL SAMPLE RESULTS

### Fluoride by Ion-Specific Electrode (Non-Distilled)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-14-20250805 (A5H1062-01)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | 08/12/25 15:01 | SM 4500-F C | |
| **SMW-12-20250805 (A5H1062-02)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| **Fluoride** | **0.115** | --- | 0.100 | mg/L | 1 | 08/12/25 15:05 | SM 4500-F C | |
| **SMW-2-20250806 (A5H1062-03)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| **Fluoride** | **0.155** | --- | 0.100 | mg/L | 1 | 08/12/25 15:07 | SM 4500-F C | |
| **SMW-3-20250806 (A5H1062-04)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| **Fluoride** | **0.157** | --- | 0.100 | mg/L | 1 | 08/12/25 15:09 | SM 4500-F C | |
| **SMW-9-20250806 (A5H1062-05)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | 08/12/25 15:10 | SM 4500-F C | |
| **SMW-15R-20250807 (A5H1062-06)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| **Fluoride** | **0.345** | --- | 0.100 | mg/L | 1 | 08/12/25 15:11 | SM 4500-F C | |
| **SMW-115R-20250807 (A5H1062-07)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| **Fluoride** | **0.329** | --- | 0.100 | mg/L | 1 | 08/12/25 15:17 | SM 4500-F C | |
| **SMW-6-20250807 (A5H1062-08)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| **Fluoride** | **1.13** | --- | 0.100 | mg/L | 1 | 08/12/25 15:18 | SM 4500-F C | |
| **SMW-19-20250807 (A5H1062-09)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | 08/12/25 15:19 | SM 4500-F C | |
| **RB-20250807 (A5H1062-10)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | 08/12/25 15:21 | SM 4500-F C | |
| **SMW-13-20250807 (A5H1062-11)** | | | | **Matrix: Water** | | **Batch: 25H0362** | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | 08/12/25 15:24 | SM 4500-F C | |

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**ANALYTICAL REPORT**

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-14-20250805 (A5H1062-01)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |
| **pH** | **8.1** | --- | | pH Units | 1 | 08/08/25 15:50 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **20.0** | --- | | pH Units | 1 | 08/08/25 15:50 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |
| **Conductivity** | **325** | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:06 | SM 2510 B | |
| **SMW-12-20250805 (A5H1062-02)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |
| **pH** | **7.3** | --- | | pH Units | 1 | 08/08/25 15:53 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **20.0** | --- | | pH Units | 1 | 08/08/25 15:53 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |
| **Conductivity** | **567** | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:08 | SM 2510 B | |
| **SMW-2-20250806 (A5H1062-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |
| **pH** | **8.1** | --- | | pH Units | 1 | 08/08/25 15:56 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **20.0** | --- | | pH Units | 1 | 08/08/25 15:56 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |
| **Conductivity** | **495** | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:09 | SM 2510 B | |
| **SMW-3-20250806 (A5H1062-04)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |
| **pH** | **7.7** | --- | | pH Units | 1 | 08/08/25 15:59 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **19.9** | --- | | pH Units | 1 | 08/08/25 15:59 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |
| **Conductivity** | **1200** | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:10 | SM 2510 B | |
| **SMW-9-20250806 (A5H1062-05)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |
| **pH** | **7.2** | --- | | pH Units | 1 | 08/08/25 16:03 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **19.9** | --- | | pH Units | 1 | 08/08/25 16:03 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |

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ANALYTICAL REPORT

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5H1062 - 10 07 25 1134 |

## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-9-20250806 (A5H1062-05)** | | | | **Matrix: Water** | | | | |
| **Conductivity** | **513** | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:11 | SM 2510 B | |
| **SMW-15R-20250807 (A5H1062-06)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |
| **pH** | **7.3** | --- | | pH Units | 1 | 08/08/25 16:07 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **19.4** | --- | | pH Units | 1 | 08/08/25 16:07 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |
| **Conductivity** | **208** | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:12 | SM 2510 B | |
| **SMW-115R-20250807 (A5H1062-07)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |
| **pH** | **7.2** | --- | | pH Units | 1 | 08/08/25 16:11 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **18.7** | --- | | pH Units | 1 | 08/08/25 16:11 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |
| **Conductivity** | **206** | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:13 | SM 2510 B | |
| **SMW-6-20250807 (A5H1062-08)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |
| **pH** | **7.6** | --- | | pH Units | 1 | 08/08/25 16:14 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **18.5** | --- | | pH Units | 1 | 08/08/25 16:14 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |
| **Conductivity** | **685** | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:14 | SM 2510 B | |
| **SMW-19-20250807 (A5H1062-09)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |
| **pH** | **8.4** | --- | | pH Units | 1 | 08/08/25 16:16 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **18.3** | --- | | pH Units | 1 | 08/08/25 16:16 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |
| **Conductivity** | **292** | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:23 | SM 2510 B | |
| **RB-20250807 (A5H1062-10)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |

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ANALYTICAL REPORT

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **RB-20250807 (A5H1062-10)** | | | | **Matrix: Water** | | | | |
| **pH** | **6.0** | --- | | pH Units | 1 | 08/08/25 16:23 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **18.3** | --- | | pH Units | 1 | 08/08/25 16:23 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |
| Conductivity | ND | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:24 | SM 2510 B | |
| **SMW-13-20250807 (A5H1062-11)** | | | | **Matrix: Water** | | | | |
| Batch: 25H0252 | | | | | | | | |
| **pH** | **7.2** | --- | | pH Units | 1 | 08/08/25 16:26 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **18.4** | --- | | pH Units | 1 | 08/08/25 16:26 | SM 4500-H+ B | **H-12** |
| Batch: 25H0269 | | | | | | | | |
| **Conductivity** | **704** | --- | 2.50 | umhos/cm @25degC | 1 | 08/08/25 15:28 | SM 2510 B | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25H0686 - EPA 3015A** | | | | | | | | | Water | | | |
| **Blank (25H0686-BLK1)** | | | | Prepared: 08/20/25 09:43 | | Analyzed: 08/20/25 20:09 | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Potassium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sodium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25H0686-BS1)** | | | | Prepared: 08/20/25 09:43 | | Analyzed: 08/20/25 20:14 | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 5.64 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | --- | 102 | 80-120% | --- | --- | |
| Calcium | 5.56 | 0.300 | 0.600 | mg/L | 1 | 5.56 | --- | 100 | 80-120% | --- | --- | |
| Potassium | 5.62 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 101 | 80-120% | --- | --- | |
| Sodium | 5.59 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 101 | 80-120% | --- | --- | |
| **Duplicate (25H0686-DUP1)** | | | | Prepared: 08/20/25 09:43 | | Analyzed: 08/20/25 20:25 | | | | | | |
| QC Source Sample: Non-SDG (A5H1014-03) | | | | | | | | | | | | |
| Aluminum | **0.0268** | 0.0250 | 0.0500 | mg/L | 1 | --- | 0.0278 | --- | --- | 4 | 20% | J |
| Potassium | **4.51** | 0.0500 | 0.100 | mg/L | 1 | --- | 4.36 | --- | --- | 3 | 20% | |
| Sodium | **16.9** | 0.0500 | 0.100 | mg/L | 1 | --- | 16.4 | --- | --- | 3 | 20% | |
| **Duplicate (25H0686-DUP2)** | | | | Prepared: 08/20/25 09:43 | | Analyzed: 08/21/25 11:49 | | | | | | |
| QC Source Sample: Non-SDG (A5H1014-03RE1) | | | | | | | | | | | | |
| Calcium | **112** | 3.00 | 6.00 | mg/L | 10 | --- | 110 | --- | --- | 2 | 20% | Q-16 |
| **Matrix Spike (25H0686-MS1)** | | | | Prepared: 08/20/25 09:43 | | Analyzed: 08/20/25 20:41 | | | | | | |
| QC Source Sample: Non-SDG (A5H1014-03) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 5.72 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | 0.0278 | 102 | 75-125% | --- | --- | |
| Calcium | 115 | 0.300 | 0.600 | mg/L | 1 | 5.56 | 105 | **171** | **75-125%** | --- | --- | E, Q-65 |
| Potassium | 10.2 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 4.36 | 104 | 75-125% | --- | --- | |
| Sodium | 22.7 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 16.4 | 113 | 75-125% | --- | --- | |
| **Batch 25H0723 - EPA 3015A** | | | | | | | | | Water | | | |

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25H0723 - EPA 3015A** | | | | | | | | | Water | | | |
| **Blank (25H0723-BLK1)** | | | Prepared: 08/21/25 09:16 | | Analyzed: 08/21/25 20:54 | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Potassium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sodium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25H0723-BS1)** | | | Prepared: 08/21/25 09:16 | | Analyzed: 08/21/25 20:59 | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 5.79 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | --- | 104 | 80-120% | --- | --- | |
| Calcium | 5.60 | 0.300 | 0.600 | mg/L | 1 | 5.56 | --- | 101 | 80-120% | --- | --- | |
| Potassium | 5.65 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 102 | 80-120% | --- | --- | |
| Sodium | 5.81 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 105 | 80-120% | --- | --- | |
| **Duplicate (25H0723-DUP1)** | | | Prepared: 08/21/25 09:16 | | Analyzed: 08/21/25 21:10 | | | | | | | |
| QC Source Sample: SMW-14-20250805 (A5H1062-01) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | **0.0569** | 0.0250 | 0.0500 | mg/L | 1 | --- | 0.0590 | --- | --- | 4 | 20% | |
| Calcium | **32.4** | 0.300 | 0.600 | mg/L | 1 | --- | 33.5 | --- | --- | 3 | 20% | |
| Potassium | **3.19** | 0.0500 | 0.100 | mg/L | 1 | --- | 3.26 | --- | --- | 2 | 20% | |
| Sodium | **11.8** | 0.0500 | 0.100 | mg/L | 1 | --- | 12.1 | --- | --- | 2 | 20% | |
| **Matrix Spike (25H0723-MS1)** | | | Prepared: 08/21/25 09:16 | | Analyzed: 08/21/25 21:16 | | | | | | | |
| QC Source Sample: SMW-14-20250805 (A5H1062-01) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 5.82 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | 0.0590 | 104 | 75-125% | --- | --- | |
| Calcium | 38.2 | 0.300 | 0.600 | mg/L | 1 | 5.56 | 33.5 | 86 | 75-125% | --- | --- | |
| Potassium | 8.98 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 3.26 | 103 | 75-125% | --- | --- | |
| Sodium | 17.5 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 12.1 | 99 | 75-125% | --- | --- | |

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ANALYTICAL REPORT

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5H1062 - 10 07 25 1134 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25H0272 - Method Prep: Aq** | | | | | | | Water | | | | | |
| **Blank (25H0272-BLK1)** | | | Prepared: 08/08/25 10:49 | | Analyzed: 08/08/25 13:07 | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25H0272-BS1)** | | | Prepared: 08/08/25 10:49 | | Analyzed: 08/08/25 13:29 | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | 7.66 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 96 | 90-110% | --- | --- | |
| Sulfate | 7.80 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 98 | 90-110% | --- | --- | |
| **Duplicate (25H0272-DUP1)** | | | Prepared: 08/08/25 10:49 | | Analyzed: 08/08/25 14:55 | | | | | | | |
| QC Source Sample: Non-SDG (A5H0988-01RE1) | | | | | | | | | | | | |
| Chloride | **32.7** | 0.500 | 1.00 | mg/L | 1 | --- | 32.7 | --- | --- | 0.09 | 10% | |
| Sulfate | **19.3** | 0.500 | 1.00 | mg/L | 1 | --- | 19.3 | --- | --- | 0.1 | 10% | |
| **Duplicate (25H0272-DUP2)** | | | Prepared: 08/08/25 10:49 | | Analyzed: 08/08/25 16:21 | | | | | | | |
| QC Source Sample: SMW-14-20250805 (A5H1062-01) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | **8.87** | 0.500 | 1.00 | mg/L | 1 | --- | 8.87 | --- | --- | 0.03 | 10% | |
| Sulfate | **39.9** | 0.500 | 1.00 | mg/L | 1 | --- | 39.9 | --- | --- | 0.07 | 10% | |
| **Matrix Spike (25H0272-MS1)** | | | Prepared: 08/08/25 10:49 | | Analyzed: 08/08/25 15:17 | | | | | | | |
| QC Source Sample: Non-SDG (A5H0988-01RE1) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | 42.7 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 32.7 | 99 | 90-113% | --- | --- | |
| Sulfate | 29.4 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 19.3 | 101 | 88-115% | --- | --- | |
| **Matrix Spike (25H0272-MS2)** | | | Prepared: 08/08/25 10:49 | | Analyzed: 08/08/25 16:43 | | | | | | | |
| QC Source Sample: SMW-14-20250805 (A5H1062-01) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | 19.2 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 8.87 | 103 | 90-113% | --- | --- | |
| Sulfate | 49.9 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 39.9 | 100 | 88-115% | --- | --- | |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25H0316 - Method Prep: Aq** | | | | | | | | | Water | | | |
| **Blank (25H0316-BLK1)** | | | Prepared: 08/11/25 10:48 | | Analyzed: 08/11/25 12:30 | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25H0316-BS1)** | | | Prepared: 08/11/25 10:48 | | Analyzed: 08/11/25 12:52 | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | 7.61 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 95 | 90-110% | --- | --- | |
| Sulfate | 7.74 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 97 | 90-110% | --- | --- | |
| **Duplicate (25H0316-DUP1)** | | | Prepared: 08/11/25 10:48 | | Analyzed: 08/11/25 13:35 | | | | | | | |
| QC Source Sample: SMW-9-20250806 (A5H1062-05RE1) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | **9.90** | 2.50 | 5.00 | mg/L | 5 | --- | 10.1 | --- | --- | 2 | 10% | |
| Sulfate | **77.6** | 2.50 | 5.00 | mg/L | 5 | --- | 79.1 | --- | --- | 2 | 10% | |
| **Matrix Spike (25H0316-MS1)** | | | Prepared: 08/11/25 10:48 | | Analyzed: 08/11/25 13:56 | | | | | | | |
| QC Source Sample: SMW-9-20250806 (A5H1062-05RE1) | | | | | | | | | | | | |
| EPA 300.0 | | | | | | | | | | | | |
| Chloride | 49.3 | 2.50 | 5.00 | mg/L | 5 | 40.0 | 10.1 | 98 | 90-113% | --- | --- | |
| Sulfate | 118 | 2.50 | 5.00 | mg/L | 5 | 40.0 | 79.1 | 97 | 88-115% | --- | --- | |

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ANALYTICAL REPORT

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5H1062 - 10 07 25 1134 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25H0377 - ASTM D7511-12 (W)** | | | | | | | Water | | | | | |
| **Blank (25H0377-BLK1)** | | | Prepared: 08/12/25 15:31 | | Analyzed: 08/12/25 16:59 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25H0377-BS1)** | | | Prepared: 08/12/25 15:31 | | Analyzed: 08/12/25 17:01 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0250 | 0.00250 | 0.00500 | mg/L | 1 | 0.0250 | --- | 100 | 84-116% | --- | --- | |
| **Matrix Spike (25H0377-MS1)** | | | Prepared: 08/12/25 15:31 | | Analyzed: 08/12/25 17:07 | | | | | | | |
| QC Source Sample: SMW-14-20250805 (A5H1062-01) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0251 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 100 | 64-136% | --- | --- | |
| **Matrix Spike Dup (25H0377-MSD1)** | | | Prepared: 08/12/25 15:31 | | Analyzed: 08/12/25 17:09 | | | | | | | |
| QC Source Sample: SMW-14-20250805 (A5H1062-01) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0267 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 106 | 64-136% | 6 | 47% | |

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| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25H0394 - ASTM D7511-12 (W)** | | | | | | | | **Water** | | | | |
| **Blank (25H0394-BLK1)** | | | Prepared: 08/13/25 09:01 | | Analyzed: 08/14/25 13:46 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25H0394-BS1)** | | | Prepared: 08/13/25 09:01 | | Analyzed: 08/14/25 13:48 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0253 | 0.00250 | 0.00500 | mg/L | 1 | 0.0250 | --- | 101 | 84-116% | --- | --- | |
| **Matrix Spike (25H0394-MS1)** | | | Prepared: 08/13/25 09:01 | | Analyzed: 08/14/25 14:02 | | | | | | | |
| QC Source Sample: Non-SDG (A5H0962-01) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0156 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.00657 | **36** | **64-136%** | --- | --- | Q-02 |
| **Matrix Spike (25H0394-MS2)** | | | Prepared: 08/13/25 09:01 | | Analyzed: 08/14/25 15:05 | | | | | | | |
| QC Source Sample: SMW-13-20250807 (A5H1062-11RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0244 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 97 | 64-136% | --- | --- | |
| **Matrix Spike Dup (25H0394-MSD1)** | | | Prepared: 08/13/25 09:01 | | Analyzed: 08/14/25 14:04 | | | | | | | |
| QC Source Sample: Non-SDG (A5H0962-01) | | | | | | | | | | | | |
| Total Cyanide | 0.0158 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.00657 | **37** | **64-136%** | 2 | 47% | Q-02 |
| **Matrix Spike Dup (25H0394-MSD2)** | | | Prepared: 08/13/25 09:01 | | Analyzed: 08/14/25 15:07 | | | | | | | |
| QC Source Sample: SMW-13-20250807 (A5H1062-11RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0243 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | ND | 97 | 64-136% | 0.4 | 47% | |

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**ANALYTICAL REPORT**

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Fluoride by Ion-Specific Electrode (Non-Distilled)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25H0362 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Blank (25H0362-BLK1)** | | | Prepared: 08/12/25 11:17 | | Analyzed: 08/12/25 14:58 | | | | | | | |
| SM 4500-F C | | | | | | | | | | | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25H0362-BS1)** | | | Prepared: 08/12/25 11:17 | | Analyzed: 08/12/25 14:59 | | | | | | | |
| SM 4500-F C | | | | | | | | | | | | |
| Fluoride | 9.57 | --- | 0.100 | mg/L | 1 | 10.0 | --- | 96 | 90-114% | --- | --- | |
| **Matrix Spike (25H0362-MS1)** | | | Prepared: 08/12/25 11:17 | | Analyzed: 08/12/25 15:02 | | | | | | | |
| QC Source Sample: SMW-14-20250805 (A5H1062-01) | | | | | | | | | | | | |
| SM 4500-F C | | | | | | | | | | | | |
| Fluoride | 10.4 | --- | 0.101 | mg/L | 1 | 10.0 | 0.0881 | 104 | 90-114% | --- | --- | |
| **Matrix Spike Dup (25H0362-MSD1)** | | | Prepared: 08/12/25 11:17 | | Analyzed: 08/12/25 15:03 | | | | | | | |
| QC Source Sample: SMW-14-20250805 (A5H1062-01) | | | | | | | | | | | | |
| SM 4500-F C | | | | | | | | | | | | |
| Fluoride | 10.7 | --- | 0.101 | mg/L | 1 | 10.0 | 0.0881 | 106 | 90-114% | 2 | 5% | |

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**ANALYTICAL REPORT**

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25H0252 - Method Prep: Aq** | | | | | | | | **Water** | | | | |
| **Duplicate (25H0252-DUP1)** | | | Prepared: 08/08/25 08:03 | Analyzed: 08/08/25 15:51 | | | | | | | | |
| **QC Source Sample: SMW-14-20250805 (A5H1062-01)** | | | | | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | **8.1** | --- | | pH Units | 1 | --- | 8.1 | --- | --- | 0.2 | 2% | H-12 |
| pH Temperature (deg C) | **20.0** | --- | | pH Units | 1 | --- | 20.0 | --- | --- | 0 | 30% | H-12 |
| **Duplicate (25H0252-DUP2)** | | | Prepared: 08/08/25 08:03 | Analyzed: 08/08/25 16:30 | | | | | | | | |
| **QC Source Sample: Non-SDG (A5H1064-01)** | | | | | | | | | | | | |
| pH | **9.3** | --- | | pH Units | 1 | --- | 9.3 | --- | --- | 0.1 | 2% | CONT,H-12 |
| pH Temperature (deg C) | **18.2** | --- | | pH Units | 1 | --- | 18.2 | --- | --- | 0 | 30% | CONT,H-12 |
| **Reference (25H0252-SRM1)** | | | Prepared: 08/08/25 08:03 | Analyzed: 08/08/25 08:27 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 100 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 20.0 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |
| **Reference (25H0252-SRM2)** | | | Prepared: 08/08/25 08:03 | Analyzed: 08/08/25 08:28 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 8.0 | --- | | pH Units | 1 | 8.00 | | 100 | 98.875-101.125% | --- | --- | |
| pH Temperature (deg C) | 20.0 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |
| **Reference (25H0252-SRM3)** | | | Prepared: 08/08/25 08:03 | Analyzed: 08/08/25 15:48 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 100 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 20.0 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |
| **Reference (25H0252-SRM4)** | | | Prepared: 08/08/25 08:03 | Analyzed: 08/08/25 16:19 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 8.0 | --- | | pH Units | 1 | 8.00 | | 100 | 98.875-101.125% | --- | --- | |
| pH Temperature (deg C) | 20.0 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |
| **Reference (25H0252-SRM5)** | | | Prepared: 08/08/25 08:03 | Analyzed: 08/08/25 16:39 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 100 | 98.33-101.67% | --- | --- | |

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Darwin Thomas, Business Development Director

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25H0252 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Reference (25H0252-SRM5)** | | | Prepared: 08/08/25 08:03 | | Analyzed: 08/08/25 16:39 | | | | | | | |
| pH Temperature (deg C) | 19.9 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25H0269 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Blank (25H0269-BLK1)** | | | Prepared: 08/08/25 10:25 | | Analyzed: 08/08/25 13:04 | | | | | | | |
| SM 2510 B | | | | | | | | | | | | |
| Conductivity | ND | --- | 2.50 | umhos/cm @25degC | 1 | --- | --- | --- | --- | --- | --- | |
| **Duplicate (25H0269-DUP1)** | | | Prepared: 08/08/25 10:25 | | Analyzed: 08/08/25 13:07 | | | | | | | |
| QC Source Sample: Non-SDG (A5H1018-03) | | | | | | | | | | | | |
| Conductivity | **1160** | --- | 2.50 | umhos/cm @25degC | 1 | --- | 1160 | --- | --- | 0.09 | 3% | |
| **Reference (25H0269-SRM1)** | | | Prepared: 08/08/25 10:25 | | Analyzed: 08/08/25 13:05 | | | | | | | |
| SM 2510 B | | | | | | | | | | | | |
| Conductivity | 1420 | --- | | umhos/cm @25degC | 1 | 1410 | | 101 | 95-105% | --- | --- | |

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## SAMPLE PREPARATION INFORMATION

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25H0686 | | | | | | | |
| A5H1062-02 | Water | EPA 6020B | 08/05/25 16:07 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-03 | Water | EPA 6020B | 08/06/25 15:41 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-04 | Water | EPA 6020B | 08/06/25 14:25 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-04RE1 | Water | EPA 6020B | 08/06/25 14:25 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-05 | Water | EPA 6020B | 08/06/25 09:15 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-06 | Water | EPA 6020B | 08/07/25 09:55 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-07 | Water | EPA 6020B | 08/07/25 09:45 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-08 | Water | EPA 6020B | 08/07/25 11:03 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-08RE1 | Water | EPA 6020B | 08/07/25 11:03 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-09 | Water | EPA 6020B | 08/07/25 12:40 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-10 | Water | EPA 6020B | 08/07/25 13:00 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-11 | Water | EPA 6020B | 08/07/25 14:18 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5H1062-11RE1 | Water | EPA 6020B | 08/07/25 14:18 | 08/20/25 09:43 | 45mL/50mL | 45mL/50mL | 1.00 |
| Batch: 25H0723 | | | | | | | |
| A5H1062-01 | Water | EPA 6020B | 08/05/25 12:45 | 08/21/25 09:16 | 45mL/50mL | 45mL/50mL | 1.00 |

### Anions by Ion Chromatography

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25H0272 | | | | | | | |
| A5H1062-01 | Water | EPA 300.0 | 08/05/25 12:45 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-02 | Water | EPA 300.0 | 08/05/25 16:07 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-02RE1 | Water | EPA 300.0 | 08/05/25 16:07 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-03 | Water | EPA 300.0 | 08/06/25 15:41 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-03RE1 | Water | EPA 300.0 | 08/06/25 15:41 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-04 | Water | EPA 300.0 | 08/06/25 14:25 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-04RE1 | Water | EPA 300.0 | 08/06/25 14:25 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-05 | Water | EPA 300.0 | 08/06/25 09:15 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-06 | Water | EPA 300.0 | 08/07/25 09:55 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-07 | Water | EPA 300.0 | 08/07/25 09:45 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-08 | Water | EPA 300.0 | 08/07/25 11:03 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-11 | Water | EPA 300.0 | 08/07/25 14:18 | 08/08/25 10:49 | 5mL/5mL | 5mL/5mL | 1.00 |
| Batch: 25H0316 | | | | | | | |
| A5H1062-05RE1 | Water | EPA 300.0 | 08/06/25 09:15 | 08/11/25 10:48 | 5mL/5mL | 5mL/5mL | 1.00 |

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ORELAP ID: OR100062

ANALYTICAL REPORT

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| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## SAMPLE PREPARATION INFORMATION

### Anions by Ion Chromatography

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| A5H1062-06RE1 | Water | EPA 300.0 | 08/07/25 09:55 | 08/11/25 10:48 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-07RE1 | Water | EPA 300.0 | 08/07/25 09:45 | 08/11/25 10:48 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-09RE1 | Water | EPA 300.0 | 08/07/25 12:40 | 08/11/25 10:48 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5H1062-10RE1 | Water | EPA 300.0 | 08/07/25 13:00 | 08/11/25 10:48 | 5mL/5mL | 5mL/5mL | 1.00 |

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Prep: ASTM D7511-12 (W)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25H0377 | | | | | | | |
| A5H1062-01 | Water | D7511-12 | 08/05/25 12:45 | 08/12/25 15:31 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-02 | Water | D7511-12 | 08/05/25 16:07 | 08/12/25 15:31 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-03 | Water | D7511-12 | 08/06/25 15:41 | 08/12/25 15:31 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-04 | Water | D7511-12 | 08/06/25 14:25 | 08/12/25 15:31 | 10mL/10mL | 10mL/10mL | 1.00 |
| Batch: 25H0394 | | | | | | | |
| A5H1062-05RE1 | Water | D7511-12 | 08/06/25 09:15 | 08/13/25 09:01 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-06RE1 | Water | D7511-12 | 08/07/25 09:55 | 08/13/25 09:01 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-07RE1 | Water | D7511-12 | 08/07/25 09:45 | 08/13/25 09:01 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-08RE1 | Water | D7511-12 | 08/07/25 11:03 | 08/13/25 09:01 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-09RE1 | Water | D7511-12 | 08/07/25 12:40 | 08/13/25 09:01 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-10RE1 | Water | D7511-12 | 08/07/25 13:00 | 08/13/25 09:01 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-11RE1 | Water | D7511-12 | 08/07/25 14:18 | 08/13/25 09:01 | 10mL/10mL | 10mL/10mL | 1.00 |

### Fluoride by Ion-Specific Electrode (Non-Distilled)

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25H0362 | | | | | | | |
| A5H1062-01 | Water | SM 4500-F C | 08/05/25 12:45 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-02 | Water | SM 4500-F C | 08/05/25 16:07 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-03 | Water | SM 4500-F C | 08/06/25 15:41 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-04 | Water | SM 4500-F C | 08/06/25 14:25 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-05 | Water | SM 4500-F C | 08/06/25 09:15 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-06 | Water | SM 4500-F C | 08/07/25 09:55 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-07 | Water | SM 4500-F C | 08/07/25 09:45 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-08 | Water | SM 4500-F C | 08/07/25 11:03 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-09 | Water | SM 4500-F C | 08/07/25 12:40 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |

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ANALYTICAL REPORT

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|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5H1062 - 10 07 25 1134 |

## SAMPLE PREPARATION INFORMATION

### Fluoride by Ion-Specific Electrode (Non-Distilled)

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| A5H1062-10 | Water | SM 4500-F C | 08/07/25 13:00 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5H1062-11 | Water | SM 4500-F C | 08/07/25 14:18 | 08/12/25 11:17 | 10mL/10mL | 10mL/10mL | 1.00 |

### Conventional Chemistry Parameters

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25H0252 | | | | | | | |
| A5H1062-01 | Water | SM 4500-H+ B | 08/05/25 12:45 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| A5H1062-02 | Water | SM 4500-H+ B | 08/05/25 16:07 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| A5H1062-03 | Water | SM 4500-H+ B | 08/06/25 15:41 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| A5H1062-04 | Water | SM 4500-H+ B | 08/06/25 14:25 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| A5H1062-05 | Water | SM 4500-H+ B | 08/06/25 09:15 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| A5H1062-06 | Water | SM 4500-H+ B | 08/07/25 09:55 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| A5H1062-07 | Water | SM 4500-H+ B | 08/07/25 09:45 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| A5H1062-08 | Water | SM 4500-H+ B | 08/07/25 11:03 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| A5H1062-09 | Water | SM 4500-H+ B | 08/07/25 12:40 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| A5H1062-10 | Water | SM 4500-H+ B | 08/07/25 13:00 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| A5H1062-11 | Water | SM 4500-H+ B | 08/07/25 14:18 | 08/08/25 14:50 | 20mL/20mL | 20mL/20mL | NA |
| Batch: 25H0269 | | | | | | | |
| A5H1062-01 | Water | SM 2510 B | 08/05/25 12:45 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |
| A5H1062-02 | Water | SM 2510 B | 08/05/25 16:07 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |
| A5H1062-03 | Water | SM 2510 B | 08/06/25 15:41 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |
| A5H1062-04 | Water | SM 2510 B | 08/06/25 14:25 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |
| A5H1062-05 | Water | SM 2510 B | 08/06/25 09:15 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |
| A5H1062-06 | Water | SM 2510 B | 08/07/25 09:55 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |
| A5H1062-07 | Water | SM 2510 B | 08/07/25 09:45 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |
| A5H1062-08 | Water | SM 2510 B | 08/07/25 11:03 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |
| A5H1062-09 | Water | SM 2510 B | 08/07/25 12:40 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |
| A5H1062-10 | Water | SM 2510 B | 08/07/25 13:00 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |
| A5H1062-11 | Water | SM 2510 B | 08/07/25 14:18 | 08/08/25 13:25 | 40mL/40mL | 40mL/40mL | NA |

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Darwin Thomas, Business Development Director

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

| | |
|---|---|
| **CONT** | The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System. |
| **E** | Estimated Value. The result is above the calibration range of the instrument. |
| **H-12** | Sample Analysis or Filtration was performed >15 minutes after sample collection. Consult regulator or permit manager to determine the usability of data for intended use. |
| **J** | Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified DL. |
| **M-02** | Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated. |
| **PRES** | Incomplete field preservation. Additional preservative was added to adjust the pH within the appropriate range for this analysis. |
| **Q-02** | Spike recovery is outside of established control limits due to matrix interference. |
| **Q-16** | Reanalysis of an original Batch QC sample. |
| **Q-65** | Spike recovery is estimated due to the high analyte concentration of the source sample. |

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## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting and Detection Limits: Default Limits**

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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Darwin Thomas, Business Development Director

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

**Benzofluoranthene Isomer Reporting:**

Due to coelutions present on the analytical column, the results reported for Benzo(b+j)fluoranthene(s) represent the concentraton of both the Benzo(b)fluoranthene and Benzo(j)fluoranthene isomers. Calibration, validation and accreditation are based on the Benzo(b)fluoranthene isomer.

Apex Laboratories



Darwin Thomas, Business Development Director

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

**Decanted Samples:**

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

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Darwin Thomas, Business Development Director

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**ANALYTICAL REPORT**

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| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |

## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories



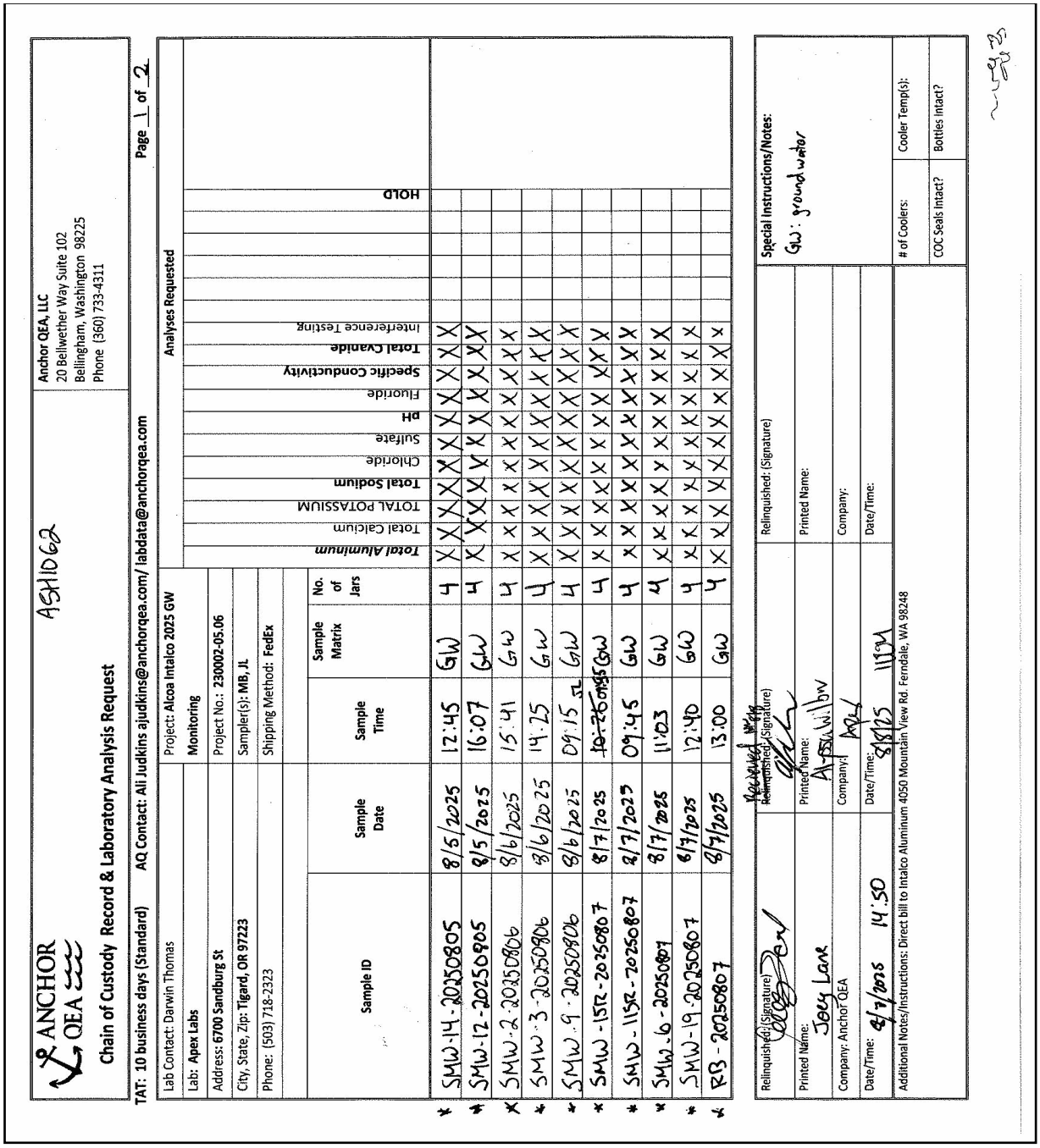
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# ANALYTICAL REPORT

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |



ANCHOR QEA
Chain of Custody Record & Laboratory Analysis Request
A5H1062
Anchor QEA, LLC
20 Bellwether Way Suite 102
Bellingham, Washington 98225
Phone (360) 733-4311
Page 1 of 2

TAT: 10 business days (Standard) AQ Contact: Ali Judkins ajudkins@anchorqea.com/ labdata@anchorqea.com

Lab Contact: Darwin Thomas
Lab: Apex Labs
Address: 6700 Sandburg St
City, State, Zip: Tigard, OR 97223
Phone: (503) 718-2323

Project: Alcoa Intalco 2025 GW
Monitoring
Project No.: 230002-05.06
Sampler(s): MB, JL
Shipping Method: FedEx

Analyses Requested: Total Aluminum; Total Calcium; TOTAL POTASSIUM; Total Sodium; Chloride; Sulfate; pH; Fluoride; Specific Conductivity; Total Cyanide; Interference Testing; HOLD

| Sample ID | Sample Date | Sample Time | Sample Matrix | No. of Jars |
|---|---|---|---|---|
| SMW-14-20250805 | 8/5/2025 | 12:45 | GW | 4 |
| SMW-12-20250905 | 8/5/2025 | 16:07 | GW | 4 |
| SMW-2-20250806 | 8/6/2025 | 15:41 | GW | 4 |
| SMW-3-20250806 | 8/6/2025 | 14:25 | GW | 4 |
| SMW-9-20250806 | 8/6/2025 | 09:15 | GW | 4 |
| SMW-15R-20250807 | 8/7/2025 | 10:26 | GW | 4 |
| SMW-11R-20250807 | 8/7/2025 | 09:45 | GW | 4 |
| SMW-6-20250807 | 8/7/2025 | 11:03 | GW | 4 |
| SMW-19-20250807 | 8/7/2025 | 12:40 | GW | 4 |
| RB-20250807 | 8/7/2025 | 13:00 | GW | 4 |

Relinquished: (Signature) — Received: (Signature) — Relinquished: (Signature)
Printed Name: Joey Lane — Printed Name: Alex Williams — Printed Name:
Company: Anchor QEA — Company: APEX — Company:
Date/Time: 8/7/2025 14:50 — Date/Time: 8/8/25 1154 — Date/Time:

Special Instructions/Notes: GW: groundwater

# of Coolers: — Cooler Temp(s):
COC Seals Intact? — Bottles Intact?

Additional Notes/Instructions: Direct bill to Intalco Aluminum 4050 Mountain View Rd. Ferndale, WA 98248

Apex Laboratories

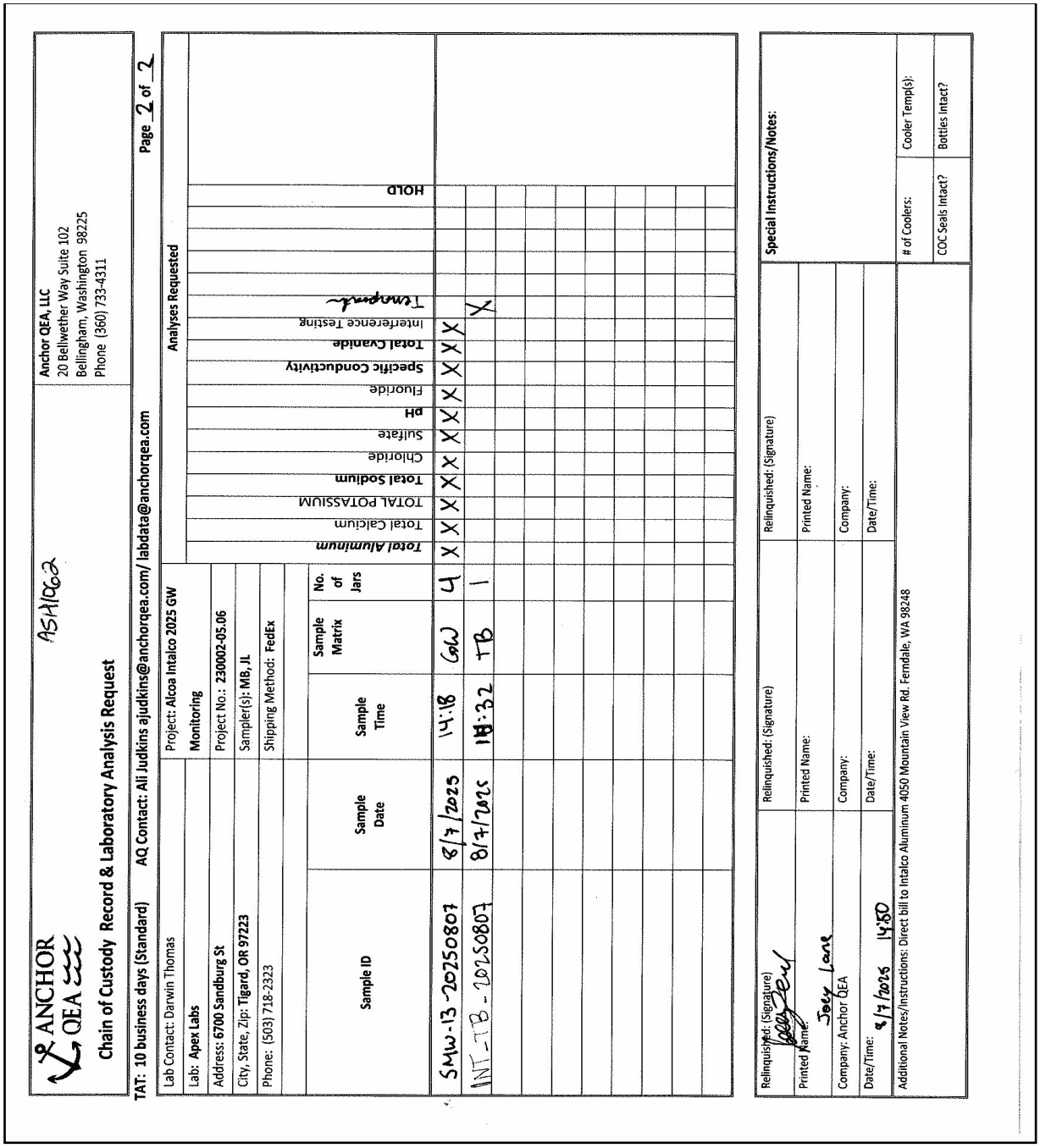
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Darwin Thomas, Business Development Director

**Apex Laboratories, LLC**

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**


| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5H1062 - 10 07 25 1134** |



ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

A5H1062

Page 2 of 2

Anchor QEA, LLC
20 Bellwether Way Suite 102
Bellingham, Washington 98225
Phone (360) 733-4311

TAT: 10 business days (Standard) AQ Contact: Ali Judkins ajudkins@anchorqea.com/ labdata@anchorqea.com

Lab Contact: Darwin Thomas
Lab: Apex Labs
Address: 6700 Sandburg St
City, State, Zip: Tigard, OR 97223
Phone: (503) 718-2323

Project: Alcoa Intalco 2025 GW
Monitoring
Project No.: 230002-05.06
Sampler(s): MB, JL
Shipping Method: FedEx

Analyses Requested

| Sample ID | Sample Date | Sample Time | Sample Matrix | No. of Jars | Total Aluminum | Total Calcium | TOTAL POTASSIUM | Total Sodium | Chloride | Sulfate | pH | Fluoride | Specific Conductivity | Total Cyanide | Interference Testing | Temperature | HOLD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMW-13-20250807 | 8/7/2025 | 14:18 | GW | 4 | X | X | X | X | X | X | X | X | X | X | X | | |
| INT-TB-20250807 | 8/7/2025 | 18:32 | TB | 1 | | | | | | | | | | | | | |

Special Instructions/Notes:

| | | | |
|---|---|---|---|
| Relinquished: (Signature) | Relinquished: (Signature) | Relinquished: (Signature) | # of Coolers: / Cooler Temp(s): |
| Printed Name: Joey Loos | Printed Name: | Printed Name: | COC Seals Intact? / Bottles Intact? |
| Company: Anchor QEA | Company: | Company: | |
| Date/Time: 8/7/2025 1450 | Date/Time: | Date/Time: | |

Additional Notes/Instructions: Direct bill to Intalco Aluminum 4050 Mountain View Rd. Ferndale, WA 98248

Apex Laboratories

Darwin Thomas

Darwin Thomas, Business Development Director

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**ANALYTICAL REPORT**

| | | |
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## APEX LABS COOLER RECEIPT FORM

**Client:** Anchor QEA Element WO#: A5H1062

**Project/Project #:** Alcoa Intalco 2025 GW 230002-05.06

**Delivery Info:**

Date/time received: 8/8/25 @ 1004 By: AAW

Delivered by: Apex__Client__ESS__FedEx X UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ____ No X

**Cooler Inspection** Date/time inspected: 8/8/25 @ 1114 By: ZAM

Chain of Custody included? Yes X No ____

Signed/dated by client? Yes Y No ____

Contains USDA Reg. Soils? Yes ____ No X Unsure (email RegSoils) ____

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 0.8 | | | | | | |
| Custody seals? (Y/N) | N | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | Y | | | | | | |
| Ice type: (Gel/Real/Other) | Real | | | | | | |
| Condition (In/Out): | In | | | | | | |

Cooler out of temp? (Y/N) Possible reason why: ____

Green dots applied to out of temperature samples? Yes No

Out of temperature samples form initiated? Yes/No

**Sample Inspection:** Date/time inspected: 8/8/25 @ 1251 By: ZAM

All samples intact? Yes X No ___ Comments: ____

ZAM 8/8/25

Bottle labels/COCs agree? Yes X No X Comments: Conts. for SMW-15R-20250807 read time as 955

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ____

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments ____

Water samples: pH checked: Yes X No ___ NA ___ pH appropriate? Yes ___ No X NA ___ pH ID: A23172

Comments: 125ml NaOH poly for SMW-9-20250806, SMW-6-20250807 A24265 & SMW-13-20250807 pH@7

3918 9218 9974

Labeled by: ZAM Witness: JS Cooler Inspected by: ZAM

Form Y-003 R-02

Apex Laboratories

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Darwin Thomas, Business Development Director

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

Thursday, January 8, 2026

Ali Judkins
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 300
Portland, OR 97219

RE: A5K1233 - Alcoa - Intalco - 230002-05.06

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5K1233, which was received by the laboratory on 11/7/2025 at 10:50:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information |
|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. |
| (See Cooler Receipt Form for details) |
| Default Cooler 3.6 degC |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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**ANALYTICAL REPORT**

| | | |
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| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| SMW-2-20251104 | A5K1233-01 | GW | 11/04/25 16:14 | 11/07/25 10:50 |
| SMW-3-20251105 | A5K1233-02 | GW | 11/05/25 13:09 | 11/07/25 10:50 |
| SMW-6-20251105 | A5K1233-03 | GW | 11/05/25 10:04 | 11/07/25 10:50 |
| SMW-106-20251105 | A5K1233-04 | GW | 11/05/25 10:04 | 11/07/25 10:50 |
| SMW-9-20251105 | A5K1233-05 | GW | 11/05/25 11:33 | 11/07/25 10:50 |
| SMW-12-20251105 | A5K1233-06 | GW | 11/05/25 14:23 | 11/07/25 10:50 |
| SMW-13-20251104 | A5K1233-07 | GW | 11/04/25 12:38 | 11/07/25 10:50 |
| SMW-15R-20251106 | A5K1233-08 | GW | 11/06/25 10:35 | 11/07/25 10:50 |
| SMW-14-20251106 | A5K1233-09 | GW | 11/06/25 11:51 | 11/07/25 10:50 |
| EB-20251106 | A5K1233-10 | WQ | 11/06/25 13:37 | 11/07/25 10:50 |

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ANALYTICAL REPORT

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-2-20251104 (A5K1233-01)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Aluminum** | **1.58** | 0.0250 | 0.0500 | mg/L | 1 | 11/21/25 00:52 | EPA 6020B | |
| **Calcium** | **44.6** | 0.300 | 0.600 | mg/L | 1 | 11/21/25 00:52 | EPA 6020B | |
| **Potassium** | **3.46** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 00:52 | EPA 6020B | |
| **Sodium** | **16.9** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 00:52 | EPA 6020B | |
| **SMW-3-20251105 (A5K1233-02)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Aluminum** | **0.0534** | 0.0250 | 0.0500 | mg/L | 1 | 11/21/25 01:09 | EPA 6020B | |
| **Potassium** | **4.84** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:09 | EPA 6020B | |
| **Sodium** | **42.6** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:09 | EPA 6020B | |
| **SMW-3-20251105 (A5K1233-02RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Calcium** | **114** | 3.00 | 6.00 | mg/L | 10 | 11/21/25 22:32 | EPA 6020B | |
| **SMW-6-20251105 (A5K1233-03)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Aluminum** | **0.370** | 0.0250 | 0.0500 | mg/L | 1 | 11/21/25 01:14 | EPA 6020B | |
| **Potassium** | **2.45** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:14 | EPA 6020B | |
| **Sodium** | **19.8** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:14 | EPA 6020B | |
| **SMW-6-20251105 (A5K1233-03RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Calcium** | **78.6** | 3.00 | 6.00 | mg/L | 10 | 11/21/25 22:37 | EPA 6020B | |
| **SMW-106-20251105 (A5K1233-04)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Aluminum** | **0.298** | 0.0250 | 0.0500 | mg/L | 1 | 11/21/25 01:19 | EPA 6020B | |
| **Potassium** | **2.47** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:19 | EPA 6020B | |
| **Sodium** | **19.9** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:19 | EPA 6020B | |
| **SMW-106-20251105 (A5K1233-04RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Calcium** | **79.1** | 3.00 | 6.00 | mg/L | 10 | 11/21/25 22:43 | EPA 6020B | |

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Darwin Thomas, Business Development Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5K1233 - 01 08 26 1010 |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-9-20251105 (A5K1233-05)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Aluminum** | **0.0507** | 0.0250 | 0.0500 | mg/L | 1 | 11/21/25 01:25 | EPA 6020B | |
| **Calcium** | **49.9** | 0.300 | 0.600 | mg/L | 1 | 11/21/25 01:25 | EPA 6020B | |
| **Potassium** | **2.27** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:25 | EPA 6020B | |
| **Sodium** | **16.8** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:25 | EPA 6020B | |
| **SMW-12-20251105 (A5K1233-06)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Aluminum** | **0.0398** | 0.0250 | 0.0500 | mg/L | 1 | 11/21/25 01:30 | EPA 6020B | **J** |
| **Potassium** | **2.01** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:30 | EPA 6020B | |
| **Sodium** | **42.6** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:30 | EPA 6020B | |
| **SMW-12-20251105 (A5K1233-06RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Calcium** | **59.9** | 3.00 | 6.00 | mg/L | 10 | 11/21/25 22:48 | EPA 6020B | |
| **SMW-13-20251104 (A5K1233-07)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | 11/21/25 01:46 | EPA 6020B | |
| **Potassium** | **3.55** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:46 | EPA 6020B | |
| **Sodium** | **19.3** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:46 | EPA 6020B | |
| **SMW-13-20251104 (A5K1233-07RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Calcium** | **77.7** | 3.00 | 6.00 | mg/L | 10 | 11/21/25 22:54 | EPA 6020B | |
| **SMW-15R-20251106 (A5K1233-08)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |
| **Aluminum** | **0.0500** | 0.0250 | 0.0500 | mg/L | 1 | 11/21/25 01:52 | EPA 6020B | |
| **Calcium** | **16.2** | 0.300 | 0.600 | mg/L | 1 | 11/21/25 01:52 | EPA 6020B | |
| **Potassium** | **1.19** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:52 | EPA 6020B | |
| **Sodium** | **11.5** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:52 | EPA 6020B | |
| **SMW-14-20251106 (A5K1233-09)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0787 | | | | | | | | |

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503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-14-20251106 (A5K1233-09)** | | | | **Matrix: GW** | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | 11/21/25 01:57 | EPA 6020B | |
| **Calcium** | **35.3** | 0.300 | 0.600 | mg/L | 1 | 11/21/25 01:57 | EPA 6020B | |
| **Potassium** | **3.46** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:57 | EPA 6020B | |
| **Sodium** | **12.6** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 01:57 | EPA 6020B | |
| **EB-20251106 (A5K1233-10)** | | | | **Matrix: WQ** | | | | |
| Batch: 25K0787 | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | 11/21/25 02:03 | EPA 6020B | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | 11/21/25 02:03 | EPA 6020B | |
| **Potassium** | **0.0727** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 02:03 | EPA 6020B | **J** |
| **Sodium** | **0.486** | 0.0500 | 0.100 | mg/L | 1 | 11/21/25 02:03 | EPA 6020B | |

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ANALYTICAL REPORT

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| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-2-20251104 (A5K1233-01)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Chloride** | **61.5** | 1.00 | 2.00 | mg/L | 2 | 11/10/25 12:58 | EPA 300.0 | |
| **Sulfate** | **12.3** | 1.00 | 2.00 | mg/L | 2 | 11/10/25 12:58 | EPA 300.0 | |
| **SMW-2-20251104 (A5K1233-01RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0491 | | | | | | | | |
| **Fluoride** | **0.593** | 0.500 | 1.00 | mg/L | 1 | 11/12/25 21:00 | EPA 300.0 | **J** |
| **SMW-3-20251105 (A5K1233-02)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Chloride** | **212** | 5.00 | 10.0 | mg/L | 10 | 11/10/25 13:19 | EPA 300.0 | |
| **Sulfate** | **13.2** | 5.00 | 10.0 | mg/L | 10 | 11/10/25 13:19 | EPA 300.0 | |
| **SMW-3-20251105 (A5K1233-02RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0491 | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 11/12/25 22:05 | EPA 300.0 | |
| **SMW-6-20251105 (A5K1233-03)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Chloride** | **24.3** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 13:41 | EPA 300.0 | |
| **Fluoride** | **1.12** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 13:41 | EPA 300.0 | |
| **Sulfate** | **29.2** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 13:41 | EPA 300.0 | |
| **SMW-106-20251105 (A5K1233-04)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Chloride** | **24.6** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 14:45 | EPA 300.0 | |
| **Fluoride** | **1.15** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 14:45 | EPA 300.0 | |
| **Sulfate** | **29.0** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 14:45 | EPA 300.0 | |
| **SMW-9-20251105 (A5K1233-05)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Chloride** | **12.4** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 15:07 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 11/10/25 15:07 | EPA 300.0 | |
| **SMW-9-20251105 (A5K1233-05RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |

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**ANALYTICAL REPORT**

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-9-20251105 (A5K1233-05RE1)** | | | | **Matrix: GW** | | | | |
| **Sulfate** | **82.0** | 2.50 | 5.00 | mg/L | 5 | 11/10/25 19:25 | EPA 300.0 | |
| **SMW-12-20251105 (A5K1233-06)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Chloride** | **145** | 5.00 | 10.0 | mg/L | 10 | 11/10/25 15:28 | EPA 300.0 | |
| **Sulfate** | **44.3** | 5.00 | 10.0 | mg/L | 10 | 11/10/25 15:28 | EPA 300.0 | |
| **SMW-12-20251105 (A5K1233-06RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0491 | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 11/12/25 22:26 | EPA 300.0 | |
| **SMW-13-20251104 (A5K1233-07)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Chloride** | **8.54** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 16:33 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 11/10/25 16:33 | EPA 300.0 | |
| **Sulfate** | **19.2** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 16:33 | EPA 300.0 | |
| **SMW-15R-20251106 (A5K1233-08)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Chloride** | **5.54** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 16:55 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 11/10/25 16:55 | EPA 300.0 | |
| **SMW-15R-20251106 (A5K1233-08RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Sulfate** | **53.9** | 1.00 | 2.00 | mg/L | 2 | 11/10/25 19:47 | EPA 300.0 | |
| **SMW-14-20251106 (A5K1233-09)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Chloride** | **9.51** | 0.500 | 1.00 | mg/L | 1 | 11/10/25 17:16 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 11/10/25 17:16 | EPA 300.0 | |
| **SMW-14-20251106 (A5K1233-09RE1)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0356 | | | | | | | | |
| **Sulfate** | **43.2** | 1.00 | 2.00 | mg/L | 2 | 11/10/25 20:52 | EPA 300.0 | |
| **EB-20251106 (A5K1233-10)** | | | | **Matrix: WQ** | | | | |

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**ANALYTICAL REPORT**

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## ANALYTICAL SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **EB-20251106 (A5K1233-10)** | | | | **Matrix: WQ** | | | | |
| Batch: 25K0356 | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | 11/10/25 17:38 | EPA 300.0 | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | 11/10/25 17:38 | EPA 300.0 | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | 11/10/25 17:38 | EPA 300.0 | |

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**ANALYTICAL REPORT**

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## ANALYTICAL SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-2-20251104 (A5K1233-01RE1)** | | | | **Matrix: GW** | | **Batch: 25K0621** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 11/17/25 17:34 | D7511-12 | |
| **SMW-3-20251105 (A5K1233-02RE1)** | | | | **Matrix: GW** | | **Batch: 25K0621** | | |
| **Total Cyanide** | **0.00316** | 0.00250 | 0.00500 | mg/L | 1 | 11/17/25 15:08 | D7511-12 | **J** |
| **SMW-6-20251105 (A5K1233-03RE1)** | | | | **Matrix: GW** | | **Batch: 25K0621** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 11/17/25 17:36 | D7511-12 | |
| **SMW-106-20251105 (A5K1233-04RE1)** | | | | **Matrix: GW** | | **Batch: 25K0621** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 11/17/25 17:38 | D7511-12 | |
| **SMW-9-20251105 (A5K1233-05RE2)** | | | | **Matrix: GW** | | **Batch: 25K0688** | | |
| **Total Cyanide** | **0.0580** | 0.0125 | 0.0250 | mg/L | 5 | 11/18/25 12:04 | D7511-12 | |
| **SMW-12-20251105 (A5K1233-06)** | | | | **Matrix: GW** | | **Batch: 25K0621** | | |
| **Total Cyanide** | **0.130** | 0.0250 | 0.0500 | mg/L | 10 | 11/17/25 16:15 | D7511-12 | |
| **SMW-13-20251104 (A5K1233-07)** | | | | **Matrix: GW** | | **Batch: 25K0621** | | **PRES** |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 11/17/25 16:19 | D7511-12 | |
| **SMW-15R-20251106 (A5K1233-08)** | | | | **Matrix: GW** | | **Batch: 25K0621** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 11/17/25 16:21 | D7511-12 | |
| **SMW-14-20251106 (A5K1233-09)** | | | | **Matrix: GW** | | **Batch: 25K0621** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 11/17/25 16:25 | D7511-12 | |
| **EB-20251106 (A5K1233-10)** | | | | **Matrix: WQ** | | **Batch: 25K0621** | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | 11/17/25 16:27 | D7511-12 | |

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**ANALYTICAL REPORT**

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## ANALYTICAL SAMPLE RESULTS

### Fluoride by Ion-Specific Electrode (Non-Distilled)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-2-20251104 (A5K1233-01)** | | | | **Matrix: GW** | | **Batch: 25K0401** | | |
| **Fluoride** | **0.649** | --- | 0.100 | mg/L | 1 | 11/11/25 13:32 | SM 4500-F C | |
| **SMW-3-20251105 (A5K1233-02)** | | | | **Matrix: GW** | | **Batch: 25K0401** | | |
| **Fluoride** | **0.201** | --- | 0.100 | mg/L | 1 | 11/11/25 13:37 | SM 4500-F C | |
| **SMW-6-20251105 (A5K1233-03)** | | | | **Matrix: GW** | | **Batch: 25K0401** | | |
| **Fluoride** | **1.16** | --- | 0.100 | mg/L | 1 | 11/11/25 13:39 | SM 4500-F C | |
| **SMW-106-20251105 (A5K1233-04)** | | | | **Matrix: GW** | | **Batch: 25K0401** | | |
| **Fluoride** | **1.19** | --- | 0.100 | mg/L | 1 | 11/11/25 13:41 | SM 4500-F C | |
| **SMW-9-20251105 (A5K1233-05)** | | | | **Matrix: GW** | | **Batch: 25K0401** | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | 11/11/25 13:43 | SM 4500-F C | |
| **SMW-12-20251105 (A5K1233-06)** | | | | **Matrix: GW** | | **Batch: 25K0401** | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | 11/11/25 13:44 | SM 4500-F C | |
| **SMW-13-20251104 (A5K1233-07)** | | | | **Matrix: GW** | | **Batch: 25K0401** | | |
| **Fluoride** | **0.114** | --- | 0.100 | mg/L | 1 | 11/11/25 13:51 | SM 4500-F C | |
| **SMW-15R-20251106 (A5K1233-08)** | | | | **Matrix: GW** | | **Batch: 25K0401** | | |
| **Fluoride** | **0.362** | --- | 0.100 | mg/L | 1 | 11/11/25 13:54 | SM 4500-F C | |
| **SMW-14-20251106 (A5K1233-09)** | | | | **Matrix: GW** | | **Batch: 25K0401** | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | 11/11/25 13:55 | SM 4500-F C | |
| **EB-20251106 (A5K1233-10)** | | | | **Matrix: WQ** | | **Batch: 25K0401** | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | 11/11/25 13:58 | SM 4500-F C | |

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ANALYTICAL REPORT

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| Anchor QEA, LLC | Project: Alcoa - Intalco | |
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| Portland, OR 97219 | Project Manager: Ali Judkins | A5K1233 - 01 08 26 1010 |

## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-2-20251104 (A5K1233-01)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0280 | | | | | | | | |
| **pH** | **8.0** | --- | | pH Units | 1 | 11/07/25 17:47 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **17.4** | --- | | pH Units | 1 | 11/07/25 17:47 | SM 4500-H+ B | **H-12** |
| Batch: 25K0589 | | | | | | | | |
| **Conductivity** | **479** | --- | 2.50 | umhos/cm @25degC | 1 | 11/14/25 18:21 | SM 2510 B | |
| **SMW-3-20251105 (A5K1233-02)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0280 | | | | | | | | |
| **pH** | **7.6** | --- | | pH Units | 1 | 11/07/25 17:48 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **21.5** | --- | | pH Units | 1 | 11/07/25 17:48 | SM 4500-H+ B | **H-12** |
| Batch: 25K0589 | | | | | | | | |
| **Conductivity** | **1150** | --- | 2.50 | umhos/cm @25degC | 1 | 11/14/25 18:23 | SM 2510 B | |
| **SMW-6-20251105 (A5K1233-03)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0280 | | | | | | | | |
| **pH** | **7.5** | --- | | pH Units | 1 | 11/07/25 17:50 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **19.4** | --- | | pH Units | 1 | 11/07/25 17:50 | SM 4500-H+ B | **H-12** |
| Batch: 25K0589 | | | | | | | | |
| **Conductivity** | **686** | --- | 2.50 | umhos/cm @25degC | 1 | 11/14/25 18:24 | SM 2510 B | |
| **SMW-106-20251105 (A5K1233-04)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0280 | | | | | | | | |
| **pH** | **7.5** | --- | | pH Units | 1 | 11/07/25 17:51 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **23.4** | --- | | pH Units | 1 | 11/07/25 17:51 | SM 4500-H+ B | **H-12** |
| Batch: 25K0589 | | | | | | | | |
| **Conductivity** | **697** | --- | 2.50 | umhos/cm @25degC | 1 | 11/14/25 18:25 | SM 2510 B | |
| **SMW-9-20251105 (A5K1233-05)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0280 | | | | | | | | |
| **pH** | **7.2** | --- | | pH Units | 1 | 11/07/25 17:53 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **22.6** | --- | | pH Units | 1 | 11/07/25 17:53 | SM 4500-H+ B | **H-12** |
| Batch: 25K0589 | | | | | | | | |

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**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SMW-9-20251105 (A5K1233-05)** | | | | **Matrix: GW** | | | | |
| **Conductivity** | **505** | --- | 2.50 | umhos/cm @25degC | 1 | 11/14/25 18:26 | SM 2510 B | |
| **SMW-12-20251105 (A5K1233-06)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0280 | | | | | | | | |
| **pH** | **7.1** | --- | | pH Units | 1 | 11/07/25 17:55 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **23.6** | --- | | pH Units | 1 | 11/07/25 17:55 | SM 4500-H+ B | **H-12** |
| Batch: 25K0589 | | | | | | | | |
| **Conductivity** | **768** | --- | 2.50 | umhos/cm @25degC | 1 | 11/14/25 18:31 | SM 2510 B | |
| **SMW-13-20251104 (A5K1233-07)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0280 | | | | | | | | |
| **pH** | **7.1** | --- | | pH Units | 1 | 11/07/25 17:57 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **23.8** | --- | | pH Units | 1 | 11/07/25 17:57 | SM 4500-H+ B | **H-12** |
| Batch: 25K0589 | | | | | | | | |
| **Conductivity** | **689** | --- | 2.50 | umhos/cm @25degC | 1 | 11/14/25 18:32 | SM 2510 B | |
| **SMW-15R-20251106 (A5K1233-08)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0280 | | | | | | | | |
| **pH** | **7.3** | --- | | pH Units | 1 | 11/07/25 17:59 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **23.0** | --- | | pH Units | 1 | 11/07/25 17:59 | SM 4500-H+ B | **H-12** |
| Batch: 25K0589 | | | | | | | | |
| **Conductivity** | **206** | --- | 2.50 | umhos/cm @25degC | 1 | 11/14/25 18:33 | SM 2510 B | |
| **SMW-14-20251106 (A5K1233-09)** | | | | **Matrix: GW** | | | | |
| Batch: 25K0280 | | | | | | | | |
| **pH** | **8.0** | --- | | pH Units | 1 | 11/07/25 18:01 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **21.8** | --- | | pH Units | 1 | 11/07/25 18:01 | SM 4500-H+ B | **H-12** |
| Batch: 25K0589 | | | | | | | | |
| **Conductivity** | **335** | --- | 2.50 | umhos/cm @25degC | 1 | 11/14/25 18:34 | SM 2510 B | |
| **EB-20251106 (A5K1233-10)** | | | | **Matrix: WQ** | | | | |
| Batch: 25K0280 | | | | | | | | |

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**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## ANALYTICAL SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **EB-20251106 (A5K1233-10)** | | | | **Matrix: WQ** | | | | |
| **pH** | **6.5** | --- | | pH Units | 1 | 11/07/25 18:07 | SM 4500-H+ B | **H-12** |
| **pH Temperature (deg C)** | **21.3** | --- | | pH Units | 1 | 11/07/25 18:07 | SM 4500-H+ B | **H-12** |
| Batch: 25K0589 | | | | | | | | |
| **Conductivity** | **4.82** | --- | 2.50 | umhos/cm @25degC | 1 | 11/14/25 18:35 | SM 2510 B | |

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ANALYTICAL REPORT

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| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5K1233 - 01 08 26 1010 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25K0787 - EPA 3015A** | | | | | | | | | Water | | | |
| **Blank (25K0787-BLK1)** | | | Prepared: 11/19/25 12:49 | | Analyzed: 11/21/25 00:41 | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | ND | 0.0250 | 0.0500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Calcium | ND | 0.300 | 0.600 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Potassium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sodium | ND | 0.0500 | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25K0787-BS1)** | | | Prepared: 11/19/25 12:49 | | Analyzed: 11/21/25 00:47 | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 5.69 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | --- | 102 | 80-120% | --- | --- | |
| Calcium | 5.62 | 0.300 | 0.600 | mg/L | 1 | 5.56 | --- | 101 | 80-120% | --- | --- | |
| Potassium | 5.76 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 104 | 80-120% | --- | --- | |
| Sodium | 5.77 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | --- | 104 | 80-120% | --- | --- | |
| **Duplicate (25K0787-DUP1)** | | | Prepared: 11/19/25 12:49 | | Analyzed: 11/21/25 00:58 | | | | | | | |
| QC Source Sample: SMW-2-20251104 (A5K1233-01) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | **1.60** | 0.0250 | 0.0500 | mg/L | 1 | --- | 1.58 | --- | --- | 1 | 20% | |
| Calcium | **45.3** | 0.300 | 0.600 | mg/L | 1 | --- | 44.6 | --- | --- | 2 | 20% | |
| Potassium | **3.51** | 0.0500 | 0.100 | mg/L | 1 | --- | 3.46 | --- | --- | 1 | 20% | |
| Sodium | **17.0** | 0.0500 | 0.100 | mg/L | 1 | --- | 16.9 | --- | --- | 0.9 | 20% | |
| **Matrix Spike (25K0787-MS1)** | | | Prepared: 11/19/25 12:49 | | Analyzed: 11/21/25 01:03 | | | | | | | |
| QC Source Sample: SMW-2-20251104 (A5K1233-01) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Aluminum | 7.33 | 0.0250 | 0.0500 | mg/L | 1 | 5.56 | 1.58 | 104 | 75-125% | --- | --- | |
| Calcium | 50.4 | 0.300 | 0.600 | mg/L | 1 | 5.56 | 44.6 | 104 | 75-125% | --- | --- | |
| Potassium | 9.04 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 3.46 | 100 | 75-125% | --- | --- | |
| Sodium | 22.3 | 0.0500 | 0.100 | mg/L | 1 | 5.56 | 16.9 | 98 | 75-125% | --- | --- | |

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**ANALYTICAL REPORT**

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| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25K0356 - Method Prep: Aq** | | | | | | | | | Water | | | |
| **Blank (25K0356-BLK1)** | | | Prepared: 11/10/25 10:12 | | Analyzed: 11/10/25 12:15 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Sulfate | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25K0356-BS1)** | | | Prepared: 11/10/25 10:12 | | Analyzed: 11/10/25 12:36 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 7.93 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 99 | 90-110% | --- | --- | |
| Fluoride | 8.51 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 106 | 90-110% | --- | --- | |
| Sulfate | 8.22 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 103 | 90-110% | --- | --- | |
| **Duplicate (25K0356-DUP1)** | | | Prepared: 11/10/25 10:12 | | Analyzed: 11/10/25 14:02 | | | | | | | |
| **QC Source Sample: SMW-6-20251105 (A5K1233-03)** | | | | | | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | **24.3** | 0.500 | 1.00 | mg/L | 1 | --- | 24.3 | --- | --- | 0.09 | 10% | |
| Fluoride | **1.13** | 0.500 | 1.00 | mg/L | 1 | --- | 1.12 | --- | --- | 0.6 | 10% | |
| Sulfate | **29.2** | 0.500 | 1.00 | mg/L | 1 | --- | 29.2 | --- | --- | 0.09 | 10% | |
| **Duplicate (25K0356-DUP2)** | | | Prepared: 11/10/25 10:12 | | Analyzed: 11/10/25 18:42 | | | | | | | |
| **QC Source Sample: Non-SDG (A5K1279-01)** | | | | | | | | | | | | |
| Chloride | **14.5** | 0.500 | 1.00 | mg/L | 1 | --- | 14.5 | --- | --- | 0.05 | 10% | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | ND | --- | --- | --- | 10% | |
| Sulfate | **17.6** | 0.500 | 1.00 | mg/L | 1 | --- | 17.1 | --- | --- | 3 | 10% | |
| **Matrix Spike (25K0356-MS1)** | | | Prepared: 11/10/25 10:12 | | Analyzed: 11/10/25 14:24 | | | | | | | |
| **QC Source Sample: SMW-6-20251105 (A5K1233-03)** | | | | | | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 34.6 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 24.3 | 103 | 90-113% | --- | --- | |
| Fluoride | 12.0 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 1.12 | 109 | 88-120% | --- | --- | |
| Sulfate | 39.4 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 29.2 | 102 | 88-115% | --- | --- | |
| **Matrix Spike (25K0356-MS2)** | | | Prepared: 11/10/25 10:12 | | Analyzed: 11/10/25 19:04 | | | | | | | |
| **QC Source Sample: Non-SDG (A5K1279-01)** | | | | | | | | | | | | |

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**ANALYTICAL REPORT**

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|---|---|---|
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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25K0356 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Matrix Spike (25K0356-MS2)** | | | Prepared: 11/10/25 10:12 | | Analyzed: 11/10/25 19:04 | | | | | | | |
| **QC Source Sample: Non-SDG (A5K1279-01)** | | | | | | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Chloride | 24.9 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 14.5 | 105 | 90-113% | --- | --- | |
| Fluoride | 11.2 | 0.625 | 1.25 | mg/L | 1 | 10.0 | ND | 112 | 88-120% | --- | --- | |
| Sulfate | 27.8 | 0.625 | 1.25 | mg/L | 1 | 10.0 | 17.1 | 108 | 88-115% | --- | --- | |

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25K0491 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Blank (25K0491-BLK1)** | | | Prepared: 11/12/25 16:24 | | Analyzed: 11/12/25 17:47 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25K0491-BS1)** | | | Prepared: 11/12/25 16:24 | | Analyzed: 11/12/25 18:08 | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Fluoride | 8.48 | 0.500 | 1.00 | mg/L | 1 | 8.00 | --- | 106 | 90-110% | --- | --- | |
| **Duplicate (25K0491-DUP1)** | | | Prepared: 11/12/25 16:24 | | Analyzed: 11/12/25 18:51 | | | | | | | |
| **QC Source Sample: Non-SDG (A5K1222-01)** | | | | | | | | | | | | |
| Fluoride | ND | 0.500 | 1.00 | mg/L | 1 | --- | ND | --- | --- | --- | 10% | |
| **Matrix Spike (25K0491-MS1)** | | | Prepared: 11/12/25 16:24 | | Analyzed: 11/12/25 19:13 | | | | | | | |
| **QC Source Sample: Non-SDG (A5K1222-01)** | | | | | | | | | | | | |
| **EPA 300.0** | | | | | | | | | | | | |
| Fluoride | 11.1 | 0.625 | 1.25 | mg/L | 1 | 10.0 | ND | 111 | 88-120% | --- | --- | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25K0621 - ASTM D7511-12 (W)** | | | | | | | | | Water | | | |
| **Blank (25K0621-BLK1)** | | | Prepared: 11/17/25 08:25 | | Analyzed: 11/17/25 15:02 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25K0621-BS1)** | | | Prepared: 11/17/25 08:25 | | Analyzed: 11/17/25 15:04 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0284 | 0.00250 | 0.00500 | mg/L | 1 | 0.0250 | --- | 114 | 84-116% | --- | --- | |
| **Matrix Spike (25K0621-MS1)** | | | Prepared: 11/17/25 08:25 | | Analyzed: 11/17/25 15:12 | | | | | | | |
| QC Source Sample: SMW-3-20251105 (A5K1233-02RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0318 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.00316 | 114 | 64-136% | --- | --- | |
| **Matrix Spike (25K0621-MS2)** | | | Prepared: 11/17/25 08:25 | | Analyzed: 11/17/25 16:54 | | | | | | | |
| QC Source Sample: Non-SDG (A5K1282-32) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0240 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.00510 | 75 | 64-136% | --- | --- | |
| **Matrix Spike Dup (25K0621-MSD1)** | | | Prepared: 11/17/25 08:25 | | Analyzed: 11/17/25 15:14 | | | | | | | |
| QC Source Sample: SMW-3-20251105 (A5K1233-02RE1) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0331 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.00316 | 119 | 64-136% | 4 | 47% | |
| **Matrix Spike Dup (25K0621-MSD2)** | | | Prepared: 11/17/25 08:25 | | Analyzed: 11/17/25 16:56 | | | | | | | |
| QC Source Sample: Non-SDG (A5K1282-32) | | | | | | | | | | | | |
| Total Cyanide | 0.0238 | 0.00251 | 0.00503 | mg/L | 1 | 0.0251 | 0.00510 | 74 | 64-136% | 1 | 47% | |

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ANALYTICAL REPORT

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| Portland, OR 97219 | Project Manager: Ali Judkins | A5K1233 - 01 08 26 1010 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25K0688 - ASTM D7511-12 (W)** | | | | | | | Water | | | | | |
| **Blank (25K0688-BLK1)** | | | Prepared: 11/18/25 09:07 | | Analyzed: 11/18/25 11:58 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | ND | 0.00250 | 0.00500 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25K0688-BS1)** | | | Prepared: 11/18/25 09:07 | | Analyzed: 11/18/25 12:00 | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.0249 | 0.00250 | 0.00500 | mg/L | 1 | 0.0250 | --- | 100 | 84-116% | --- | --- | |
| **Matrix Spike (25K0688-MS1)** | | | Prepared: 11/18/25 09:07 | | Analyzed: 11/18/25 12:08 | | | | | | | |
| QC Source Sample: SMW-9-20251105 (A5K1233-05RE2) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.178 | 0.0125 | 0.0250 | mg/L | 5 | 0.125 | 0.0580 | 96 | 64-136% | --- | --- | |
| **Matrix Spike Dup (25K0688-MSD1)** | | | Prepared: 11/18/25 09:07 | | Analyzed: 11/18/25 12:10 | | | | | | | |
| QC Source Sample: SMW-9-20251105 (A5K1233-05RE2) | | | | | | | | | | | | |
| D7511-12 | | | | | | | | | | | | |
| Total Cyanide | 0.182 | 0.0125 | 0.0250 | mg/L | 5 | 0.125 | 0.0580 | 99 | 64-136% | 2 | 47% | |

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ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Alcoa - Intalco | |
| 6720 SW Macadam Ave. Suite 300 | Project Number: 230002-05.06 | Report ID: |
| Portland, OR 97219 | Project Manager: Ali Judkins | A5K1233 - 01 08 26 1010 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Fluoride by Ion-Specific Electrode (Non-Distilled)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25K0401 - Method Prep: Aq** | | | | | | | Water | | | | | |
| **Blank (25K0401-BLK1)** | | | Prepared: 11/11/25 09:52 Analyzed: 11/11/25 13:29 | | | | | | | | | |
| SM 4500-F C | | | | | | | | | | | | |
| Fluoride | ND | --- | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25K0401-BS1)** | | | Prepared: 11/11/25 09:52 Analyzed: 11/11/25 13:31 | | | | | | | | | |
| SM 4500-F C | | | | | | | | | | | | |
| Fluoride | 10.1 | --- | 0.100 | mg/L | 1 | 10.0 | --- | 101 | 90-114% | --- | --- | |
| **Matrix Spike (25K0401-MS1)** | | | Prepared: 11/11/25 09:52 Analyzed: 11/11/25 13:33 | | | | | | | | | |
| QC Source Sample: SMW-2-20251104 (A5K1233-01) | | | | | | | | | | | | |
| SM 4500-F C | | | | | | | | | | | | |
| Fluoride | 10.8 | --- | 0.101 | mg/L | 1 | 10.0 | 0.649 | 101 | 90-114% | --- | --- | |
| **Matrix Spike Dup (25K0401-MSD1)** | | | Prepared: 11/11/25 09:52 Analyzed: 11/11/25 13:34 | | | | | | | | | |
| QC Source Sample: SMW-2-20251104 (A5K1233-01) | | | | | | | | | | | | |
| SM 4500-F C | | | | | | | | | | | | |
| Fluoride | 10.9 | --- | 0.101 | mg/L | 1 | 10.0 | 0.649 | 102 | 90-114% | 1 | 5% | |

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**ANALYTICAL REPORT**

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| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25K0280 - Method Prep: Aq** | | | | | | | | **Water** | | | | |
| **Duplicate (25K0280-DUP1)** | | | Prepared: 11/07/25 07:17 | Analyzed: 11/07/25 17:32 | | | | | | | | |
| **QC Source Sample: Non-SDG (A5K1215-01)** | | | | | | | | | | | | |
| pH | **6.9** | --- | | pH Units | 1 | --- | 6.8 | --- | --- | 0.6 | 2% | H-12 |
| pH Temperature (deg C) | **21.9** | --- | | pH Units | 1 | --- | 22.1 | --- | --- | 0.9 | 30% | H-12 |
| **Duplicate (25K0280-DUP2)** | | | Prepared: 11/07/25 07:17 | Analyzed: 11/07/25 17:47 | | | | | | | | |
| **QC Source Sample: SMW-2-20251104 (A5K1233-01)** | | | | | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | **8.1** | --- | | pH Units | 1 | --- | 8.0 | --- | --- | 0.2 | 2% | H-12 |
| pH Temperature (deg C) | **17.5** | --- | | pH Units | 1 | --- | 17.4 | --- | --- | 0.6 | 30% | H-12 |
| **Reference (25K0280-SRM1)** | | | Prepared: 11/07/25 07:17 | Analyzed: 11/07/25 07:47 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 100 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 20.2 | --- | | pH Units | 1 | 20.0 | | 101 | 50-200% | --- | --- | |
| **Reference (25K0280-SRM2)** | | | Prepared: 11/07/25 07:17 | Analyzed: 11/07/25 07:48 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 8.0 | --- | | pH Units | 1 | 8.00 | | 100 | 98.875-101.125% | --- | --- | |
| pH Temperature (deg C) | 20.1 | --- | | pH Units | 1 | 20.0 | | 100 | 50-200% | --- | --- | |
| **Reference (25K0280-SRM3)** | | | Prepared: 11/07/25 07:17 | Analyzed: 11/07/25 17:27 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 100 | 98.33-101.67% | --- | --- | |
| pH Temperature (deg C) | 20.3 | --- | | pH Units | 1 | 20.0 | | 102 | 50-200% | --- | --- | |
| **Reference (25K0280-SRM4)** | | | Prepared: 11/07/25 07:17 | Analyzed: 11/07/25 17:38 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 8.0 | --- | | pH Units | 1 | 8.00 | | 100 | 98.875-101.125% | --- | --- | |
| pH Temperature (deg C) | 20.2 | --- | | pH Units | 1 | 20.0 | | 101 | 50-200% | --- | --- | |
| **Reference (25K0280-SRM5)** | | | Prepared: 11/07/25 07:17 | Analyzed: 11/07/25 18:09 | | | | | | | | |
| **SM 4500-H+ B** | | | | | | | | | | | | |
| pH | 6.0 | --- | | pH Units | 1 | 6.00 | | 100 | 98.33-101.67% | --- | --- | |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

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|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25K0280 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Reference (25K0280-SRM5)** | | | Prepared: 11/07/25 07:17 | | Analyzed: 11/07/25 18:09 | | | | | | | |
| pH Temperature (deg C) | 20.4 | --- | | pH Units | 1 | 20.0 | | 102 | 50-200% | --- | --- | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Conventional Chemistry Parameters

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25K0589 - Method Prep: Aq** | | | | | | | | | Water | | | |
| **Blank (25K0589-BLK1)** | | | Prepared: 11/14/25 11:11 | | Analyzed: 11/14/25 18:18 | | | | | | | |
| SM 2510 B | | | | | | | | | | | | |
| Conductivity | ND | --- | 2.50 | umhos/cm @25degC | 1 | --- | --- | --- | --- | --- | --- | |
| **Duplicate (25K0589-DUP1)** | | | Prepared: 11/14/25 11:11 | | Analyzed: 11/14/25 18:22 | | | | | | | |
| QC Source Sample: SMW-2-20251104 (A5K1233-01) | | | | | | | | | | | | |
| SM 2510 B | | | | | | | | | | | | |
| Conductivity | **479** | --- | 2.50 | umhos/cm @25degC | 1 | --- | 479 | --- | --- | 0.08 | 3% | |
| **Reference (25K0589-SRM1)** | | | Prepared: 11/14/25 11:11 | | Analyzed: 11/14/25 18:19 | | | | | | | |
| SM 2510 B | | | | | | | | | | | | |
| Conductivity | 1420 | --- | | umhos/cm @25degC | 1 | 1410 | | 101 | 95-105% | --- | --- | |

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## SAMPLE PREPARATION INFORMATION

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25K0787 | | | | | | | |
| A5K1233-01 | GW | EPA 6020B | 11/04/25 16:14 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-02 | GW | EPA 6020B | 11/05/25 13:09 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-02RE1 | GW | EPA 6020B | 11/05/25 13:09 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-03 | GW | EPA 6020B | 11/05/25 10:04 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-03RE1 | GW | EPA 6020B | 11/05/25 10:04 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-04 | GW | EPA 6020B | 11/05/25 10:04 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-04RE1 | GW | EPA 6020B | 11/05/25 10:04 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-05 | GW | EPA 6020B | 11/05/25 11:33 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-06 | GW | EPA 6020B | 11/05/25 14:23 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-06RE1 | GW | EPA 6020B | 11/05/25 14:23 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-07 | GW | EPA 6020B | 11/04/25 12:38 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-07RE1 | GW | EPA 6020B | 11/04/25 12:38 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-08 | GW | EPA 6020B | 11/06/25 10:35 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-09 | GW | EPA 6020B | 11/06/25 11:51 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5K1233-10 | WQ | EPA 6020B | 11/06/25 13:37 | 11/19/25 12:49 | 45mL/50mL | 45mL/50mL | 1.00 |

### Anions by Ion Chromatography

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25K0356 | | | | | | | |
| A5K1233-01 | GW | EPA 300.0 | 11/04/25 16:14 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-02 | GW | EPA 300.0 | 11/05/25 13:09 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-03 | GW | EPA 300.0 | 11/05/25 10:04 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-04 | GW | EPA 300.0 | 11/05/25 10:04 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-05 | GW | EPA 300.0 | 11/05/25 11:33 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-05RE1 | GW | EPA 300.0 | 11/05/25 11:33 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-06 | GW | EPA 300.0 | 11/05/25 14:23 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-07 | GW | EPA 300.0 | 11/04/25 12:38 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-08 | GW | EPA 300.0 | 11/06/25 10:35 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-08RE1 | GW | EPA 300.0 | 11/06/25 10:35 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-09 | GW | EPA 300.0 | 11/06/25 11:51 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-09RE1 | GW | EPA 300.0 | 11/06/25 11:51 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-10 | WQ | EPA 300.0 | 11/06/25 13:37 | 11/10/25 10:12 | 5mL/5mL | 5mL/5mL | 1.00 |
| Batch: 25K0491 | | | | | | | |
| A5K1233-01RE1 | GW | EPA 300.0 | 11/04/25 16:14 | 11/12/25 16:24 | 5mL/5mL | 5mL/5mL | 1.00 |

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**ANALYTICAL REPORT**

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## SAMPLE PREPARATION INFORMATION

### Anions by Ion Chromatography

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| A5K1233-02RE1 | GW | EPA 300.0 | 11/05/25 13:09 | 11/12/25 16:24 | 5mL/5mL | 5mL/5mL | 1.00 |
| A5K1233-06RE1 | GW | EPA 300.0 | 11/05/25 14:23 | 11/12/25 16:24 | 5mL/5mL | 5mL/5mL | 1.00 |

### Total Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Prep: ASTM D7511-12 (W)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25K0621 | | | | | | | |
| A5K1233-01RE1 | GW | D7511-12 | 11/04/25 16:14 | 11/17/25 12:43 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-02RE1 | GW | D7511-12 | 11/05/25 13:09 | 11/17/25 08:25 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-03RE1 | GW | D7511-12 | 11/05/25 10:04 | 11/17/25 12:43 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-04RE1 | GW | D7511-12 | 11/05/25 10:04 | 11/17/25 12:43 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-06 | GW | D7511-12 | 11/05/25 14:23 | 11/17/25 08:25 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-07 | GW | D7511-12 | 11/04/25 12:38 | 11/17/25 08:25 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-08 | GW | D7511-12 | 11/06/25 10:35 | 11/17/25 08:25 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-09 | GW | D7511-12 | 11/06/25 11:51 | 11/17/25 08:25 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-10 | WQ | D7511-12 | 11/06/25 13:37 | 11/17/25 08:25 | 10mL/10mL | 10mL/10mL | 1.00 |
| Batch: 25K0688 | | | | | | | |
| A5K1233-05RE2 | GW | D7511-12 | 11/05/25 11:33 | 11/18/25 09:07 | 10mL/10mL | 10mL/10mL | 1.00 |

### Fluoride by Ion-Specific Electrode (Non-Distilled)

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25K0401 | | | | | | | |
| A5K1233-01 | GW | SM 4500-F C | 11/04/25 16:14 | 11/11/25 09:52 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-02 | GW | SM 4500-F C | 11/05/25 13:09 | 11/11/25 09:52 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-03 | GW | SM 4500-F C | 11/05/25 10:04 | 11/11/25 09:52 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-04 | GW | SM 4500-F C | 11/05/25 10:04 | 11/11/25 09:52 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-05 | GW | SM 4500-F C | 11/05/25 11:33 | 11/11/25 09:52 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-06 | GW | SM 4500-F C | 11/05/25 14:23 | 11/11/25 09:52 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-07 | GW | SM 4500-F C | 11/04/25 12:38 | 11/11/25 09:52 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-08 | GW | SM 4500-F C | 11/06/25 10:35 | 11/11/25 09:52 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-09 | GW | SM 4500-F C | 11/06/25 11:51 | 11/11/25 09:52 | 10mL/10mL | 10mL/10mL | 1.00 |
| A5K1233-10 | WQ | SM 4500-F C | 11/06/25 13:37 | 11/11/25 09:52 | 10mL/10mL | 10mL/10mL | 1.00 |

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**ANALYTICAL REPORT**

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## SAMPLE PREPARATION INFORMATION

### Conventional Chemistry Parameters

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25K0280 | | | | | | | |
| A5K1233-01 | GW | SM 4500-H+ B | 11/04/25 16:14 | 11/07/25 15:50 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-02 | GW | SM 4500-H+ B | 11/05/25 13:09 | 11/07/25 15:50 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-03 | GW | SM 4500-H+ B | 11/05/25 10:04 | 11/07/25 15:50 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-04 | GW | SM 4500-H+ B | 11/05/25 10:04 | 11/07/25 15:50 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-05 | GW | SM 4500-H+ B | 11/05/25 11:33 | 11/07/25 15:50 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-06 | GW | SM 4500-H+ B | 11/05/25 14:23 | 11/07/25 15:50 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-07 | GW | SM 4500-H+ B | 11/04/25 12:38 | 11/07/25 15:50 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-08 | GW | SM 4500-H+ B | 11/06/25 10:35 | 11/07/25 15:50 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-09 | GW | SM 4500-H+ B | 11/06/25 11:51 | 11/07/25 15:50 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-10 | WQ | SM 4500-H+ B | 11/06/25 13:37 | 11/07/25 15:50 | 20mL/20mL | 20mL/20mL | NA |
| Batch: 25K0589 | | | | | | | |
| A5K1233-01 | GW | SM 2510 B | 11/04/25 16:14 | 11/14/25 11:11 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-02 | GW | SM 2510 B | 11/05/25 13:09 | 11/14/25 11:11 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-03 | GW | SM 2510 B | 11/05/25 10:04 | 11/14/25 11:11 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-04 | GW | SM 2510 B | 11/05/25 10:04 | 11/14/25 11:11 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-05 | GW | SM 2510 B | 11/05/25 11:33 | 11/14/25 11:11 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-06 | GW | SM 2510 B | 11/05/25 14:23 | 11/14/25 11:11 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-07 | GW | SM 2510 B | 11/04/25 12:38 | 11/14/25 11:11 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-08 | GW | SM 2510 B | 11/06/25 10:35 | 11/14/25 11:11 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-09 | GW | SM 2510 B | 11/06/25 11:51 | 11/14/25 11:11 | 20mL/20mL | 20mL/20mL | NA |
| A5K1233-10 | WQ | SM 2510 B | 11/06/25 13:37 | 11/14/25 11:11 | 20mL/20mL | 20mL/20mL | NA |

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Darwin Thomas, Business Development Director

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**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

| | |
|---|---|
| **H-12** | Sample Analysis or Filtration was performed >15 minutes after sample collection. Consult regulator or permit manager to determine the usability of data for intended use. |
| **J** | Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified DL. |
| **PRES** | Incomplete field preservation. Additional preservative was added to adjust the pH within the appropriate range for this analysis. |

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## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting and Detection Limits: Default Limits**

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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Darwin Thomas, Business Development Director

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| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

**Benzofluoranthene Isomer Reporting:**

Due to coelutions present on the analytical column, the results reported for Benzo(b+j)fluoranthene(s) represent the concentraton of both the Benzo(b)fluoranthene and Benzo(j)fluoranthene isomers. Calibration, validation and accreditation are based on the Benzo(b)fluoranthene isomer.

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Darwin Thomas, Business Development Director

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**503-718-2323**
ORELAP ID: **OR100062**

| | | |
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| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

**Decanted Samples:**

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

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| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
| **6720 SW Macadam Ave. Suite 300** | Project Number: **230002-05.06** | **Report ID:** |
| **Portland, OR 97219** | Project Manager: **Ali Judkins** | **A5K1233 - 01 08 26 1010** |

## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories



Darwin Thomas, Business Development Director

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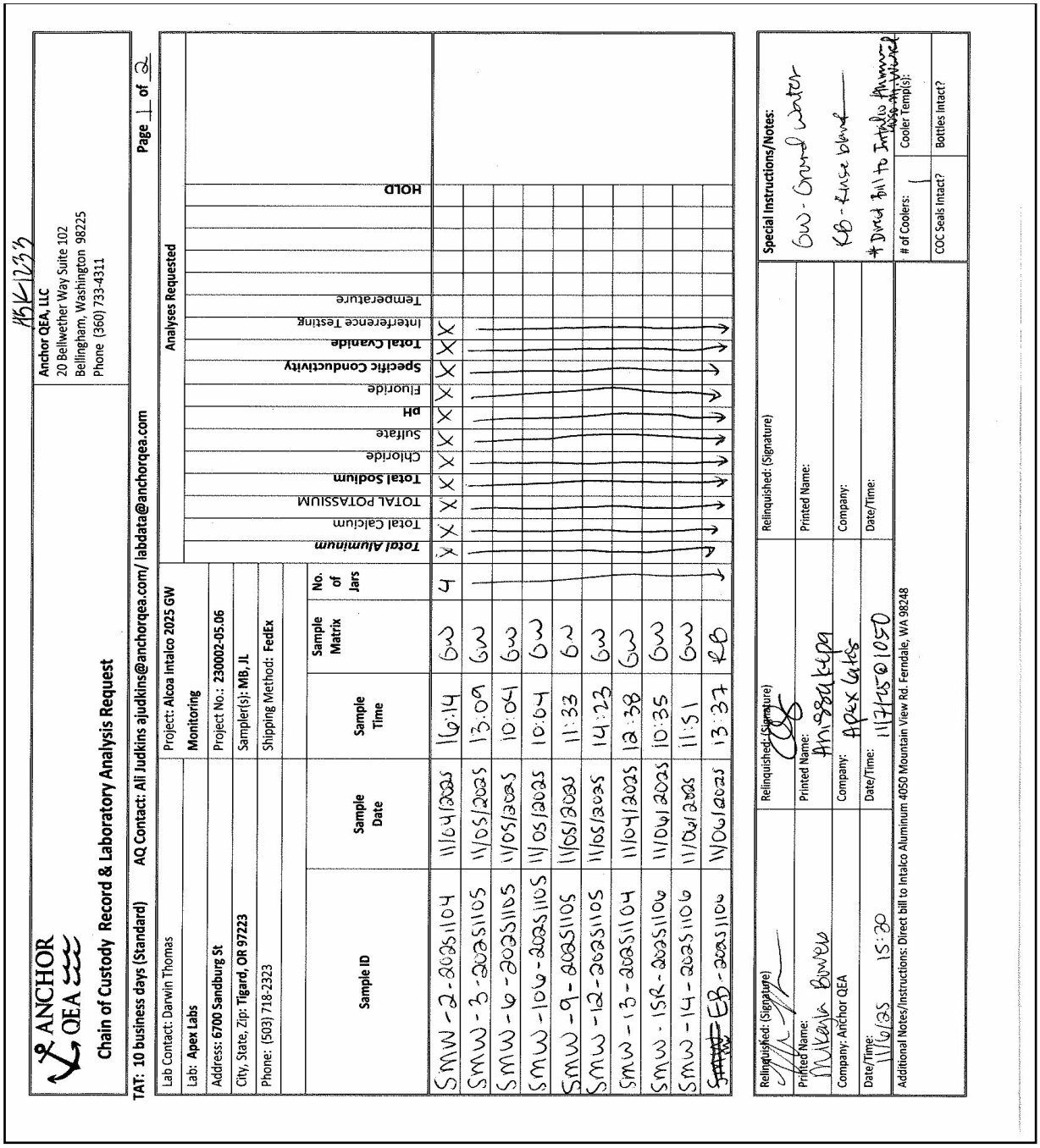
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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

# ANALYTICAL REPORT

**Anchor QEA, LLC**
**6720 SW Macadam Ave. Suite 300**
**Portland, OR 97219**

Project: **Alcoa - Intalco**
Project Number: **230002-05.06**
Project Manager: **Ali Judkins**

**Report ID:**
**A5K1233 - 01 08 26 1010**



ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

TAT: 10 business days (Standard) AQ Contact: Ali Judkins ajudkins@anchorqea.com/ labdata@anchorqea.com Page 1 of 2

Anchor QEA, LLC
20 Bellwether Way Suite 102
Bellingham, Washington 98225
Phone (360) 733-4311

Lab Contact: Darwin Thomas
Lab: Apex Labs
Address: 6700 Sandburg St
City, State, Zip: Tigard, OR 97223
Phone: (503) 718-2323

Project: Alcoa Intalco 2025 GW
Monitoring
Project No.: 230002-05.06
Sampler(s): MB, JL
Shipping Method: FedEx

| Sample ID | Sample Date | Sample Time | Sample Matrix | No. of Jars | Total Aluminum | Total Calcium | TOTAL POTASSIUM | Total Sodium | Chloride | Sulfate | pH | Fluoride | Specific Conductivity | Total Cyanide | Interference Testing | Temperature | HOLD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMW-2-20251104 | 11/04/2025 | 16:14 | GW | 4 | X | X | X | X | X | X | X | X | X | X | | | |
| SMW-3-20251105 | 11/05/2025 | 13:09 | GW | | | | | | | | | | | | | | |
| SMW-6-20251105 | 11/05/2025 | 10:04 | GW | | | | | | | | | | | | | | |
| SMW-106-20251105 | 11/05/2025 | 10:54 | GW | | | | | | | | | | | | | | |
| SMW-9-20251105 | 11/05/2025 | 11:33 | GW | | | | | | | | | | | | | | |
| SMW-12-20251105 | 11/05/2025 | 14:23 | GW | | | | | | | | | | | | | | |
| SMW-13-20251104 | 11/04/2025 | 12:38 | GW | | | | | | | | | | | | | | |
| SMW-15R-20251104 | 11/04/2025 | 10:35 | GW | | | | | | | | | | | | | | |
| SMW-14-20251104 | 11/04/2025 | 11:51 | GW | | | | | | | | | | | | | | |
| ~~Sample~~ EB-20251104 | 11/04/2025 | 13:37 | EB | 1 | | | | | | | | | | | | | |

Relinquished: (Signature) — Printed Name: Melania Bowles — Company: Anchor QEA — Date/Time: 11/6/25 15:30

Relinquished: (Signature) — Printed Name: Anissa Kemp — Company: Apex Labs — Date/Time: 11/7/25 @ 1050

Relinquished: (Signature) — Printed Name: — Company: — Date/Time:

Special Instructions/Notes:
GW - Ground water
EB - Equipment blank
* Direct bill to Intalco Attn: [illegible]

# of Coolers: 1 — Cooler Temp(s):
COC Seals Intact? — Bottles Intact?

Additional Notes/Instructions: Direct bill to Intalco Aluminum 4050 Mountain View Rd. Ferndale, WA 98248

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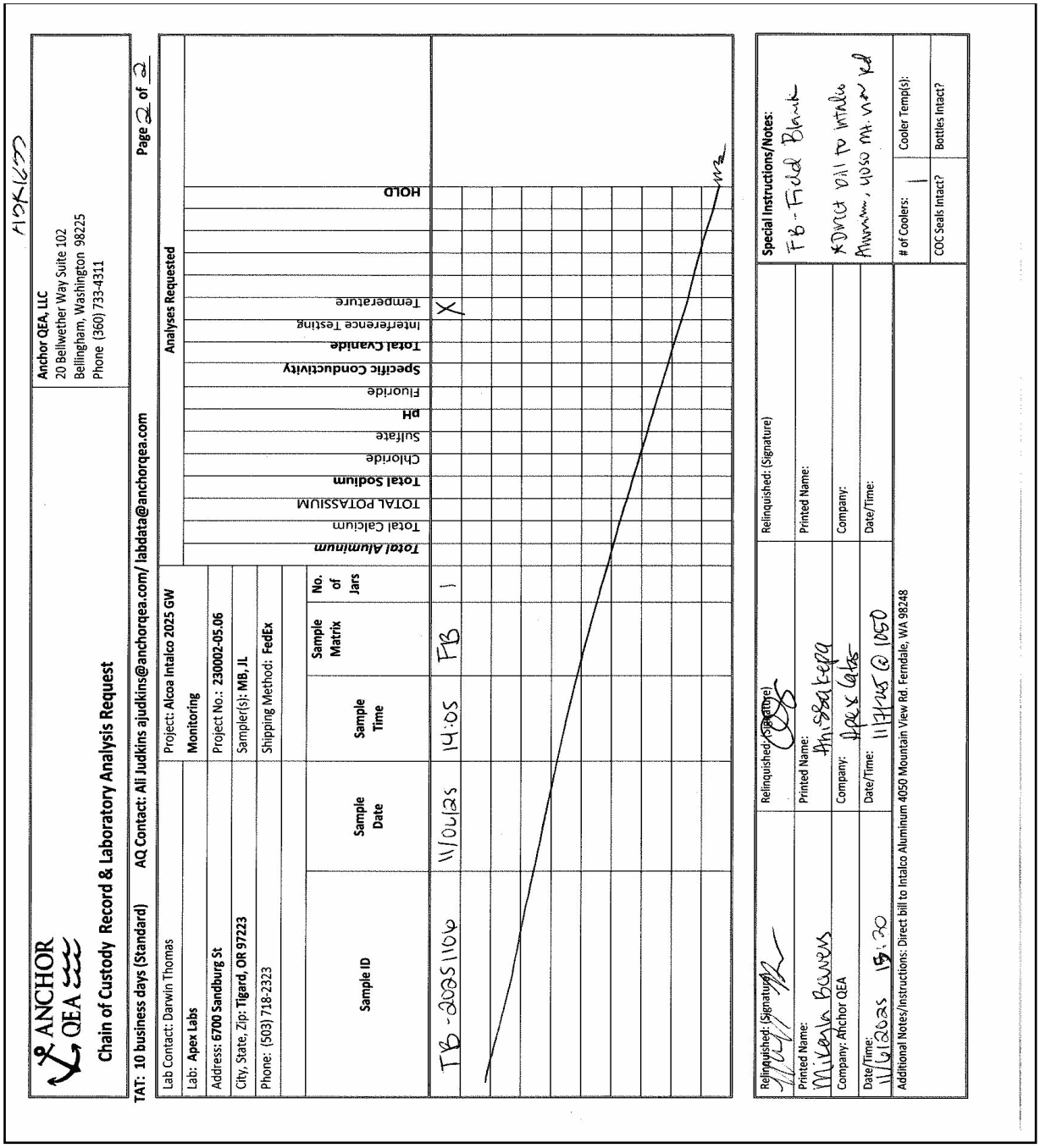
Darwin Thomas, Business Development Director

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**Anchor QEA, LLC**
**6720 SW Macadam Ave. Suite 300**
**Portland, OR 97219**

Project: **Alcoa - Intalco**
Project Number: **230002-05.06**
Project Manager: **Ali Judkins**

**Report ID:**
**A5K1233 - 01 08 26 1010**



ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Page 2 of 2

Anchor QEA, LLC
20 Bellwether Way Suite 102
Bellingham, Washington 98225
Phone (360) 733-4311

TAT: 10 business days (Standard) | AQ Contact: Ali Judkins ajudkins@anchorqea.com/ labdata@anchorqea.com

Lab Contact: Darwin Thomas
Lab: Apex Labs
Address: 6700 Sandburg St
City, State, Zip: Tigard, OR 97223
Phone: (503) 718-2323

Project: Alcoa Intalco 2025 GW
Monitoring
Project No.: 230002-05.06
Sampler(s): MB, JL
Shipping Method: FedEx

| Sample ID | Sample Date | Sample Time | Sample Matrix | No. of Jars | Total Aluminum | Total Calcium | TOTAL POTASSIUM | Total Sodium | Chloride | Sulfate | pH | Fluoride | Specific Conductivity | Total Cyanide | Interference Testing | Temperature | HOLD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TB-20251106 | 11/06/25 | 14:05 | FB | 1 | | | | | | | | | | | | X | |

Analyses Requested

Relinquished: (Signature) — Received: (Signature)
Printed Name: Miranda Bowers — Printed Name: Ali Skaggs
Company: Anchor QEA — Company: Apex Labs
Date/Time: 11/12/2025 15:30 — Date/Time: 11/7/25 @ 1050

Relinquished: (Signature) — Relinquished: (Signature)
Printed Name: — Printed Name:
Company: — Company:
Date/Time: — Date/Time:

Special Instructions/Notes:
FB - Field Blank
*Direct bill to Intalco
Attn: Accts Payable, 4050 Mt. View Rd

# of Coolers: 1 — Cooler Temp(s):
COC Seals Intact? — Bottles Intact?

Additional Notes/Instructions: Direct bill to Intalco Aluminum 4050 Mountain View Rd. Ferndale, WA 98248

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**ANALYTICAL REPORT**

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| **Anchor QEA, LLC** | Project: **Alcoa - Intalco** | |
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## APEX LABS COOLER RECEIPT FORM

**Client:** Anchor QEA Element WO#: A4 K1233

**Project/Project #:** Alcoa Intalco 2025 GW Monitoring #230002-05.06

**Delivery Info:**

Date/time received: 11/7/25 @ 1050 By: AKK

Delivered by: Apex__Client__ESS___FedEx X UPS__Radio___Morgan ___SDS___Evergreen___Other ___

From USDA Regulated Origin? Yes X No _____

**Cooler Inspection** Date/time inspected: 11/7/25 @ 1050 By: AKK

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____ Tracking #: 395072435437

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 3.6 | | | | | | |
| Custody seals? (Y/N) | N | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | Y | | | | | | |
| Ice type: (Gel/Real/Other) | Real | | | | | | |
| Condition (In/Out): | In | | | | | | |

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

**Sample Inspection:** Date/time inspected: 11/7/25 @ 1600 By: [illegible]

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes X No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments _____

Water samples: pH checked: Yes X No ___ NA ___ pH appropriate? Yes ___ No X NA ___ pH ID: A256271

Comments: pH 8 on 125 ml brown NaOH poly for A25F430 SMW-13-20251104.

Labeled by: [illegible] Witness: [illegible] Cooler Inspected by: AKK

Form Y-003 R-02

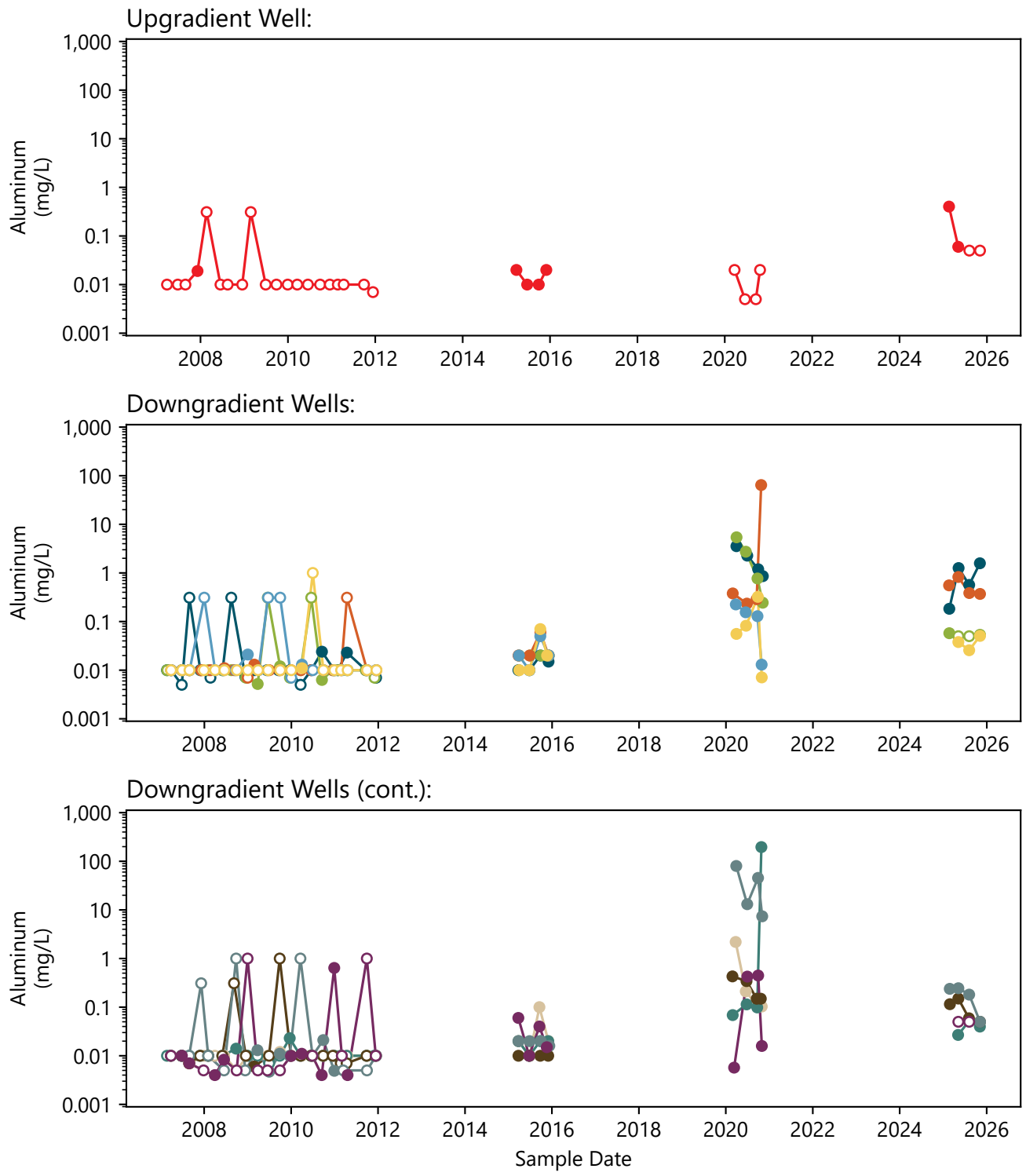
Apex Laboratories

[signature]

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Darwin Thomas, Business Development Director

# Appendix C
# Historical Time-Series Plots 2007 to 2026



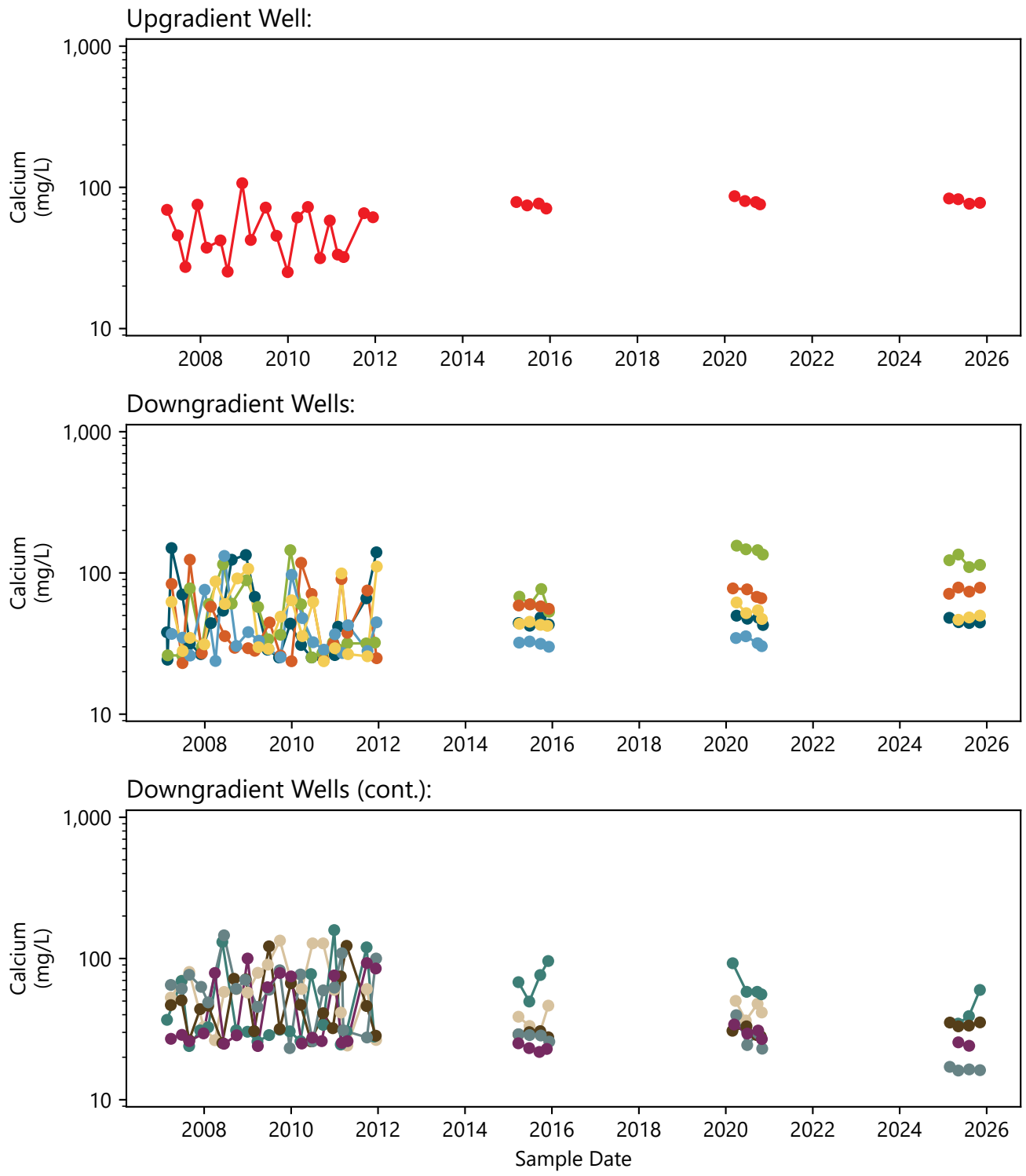

Notes:
SMW-15 and SMW-15R are plotted as the same location.
Non-detects are shown as open circles.
Data from 2007 through 2020 were downloaded from Ecology's EIM database, and the results cannot be fully verified.

SMW-2 SMW-8 SMW-12 SMW-15
SMW-3 SMW-9 SMW-13 SMW-19
SMW-6 SMW-10 SMW-14

Publish Date: 03/31/2026 13:06 PM | User: LAK-RWILL
C:\Users\rawillis\AppData\Local\ActiveState\3575cf11\lib\runpy.py

ANCHOR QEA

**Figure C-1**
**Aluminum Groundwater Concentration**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site

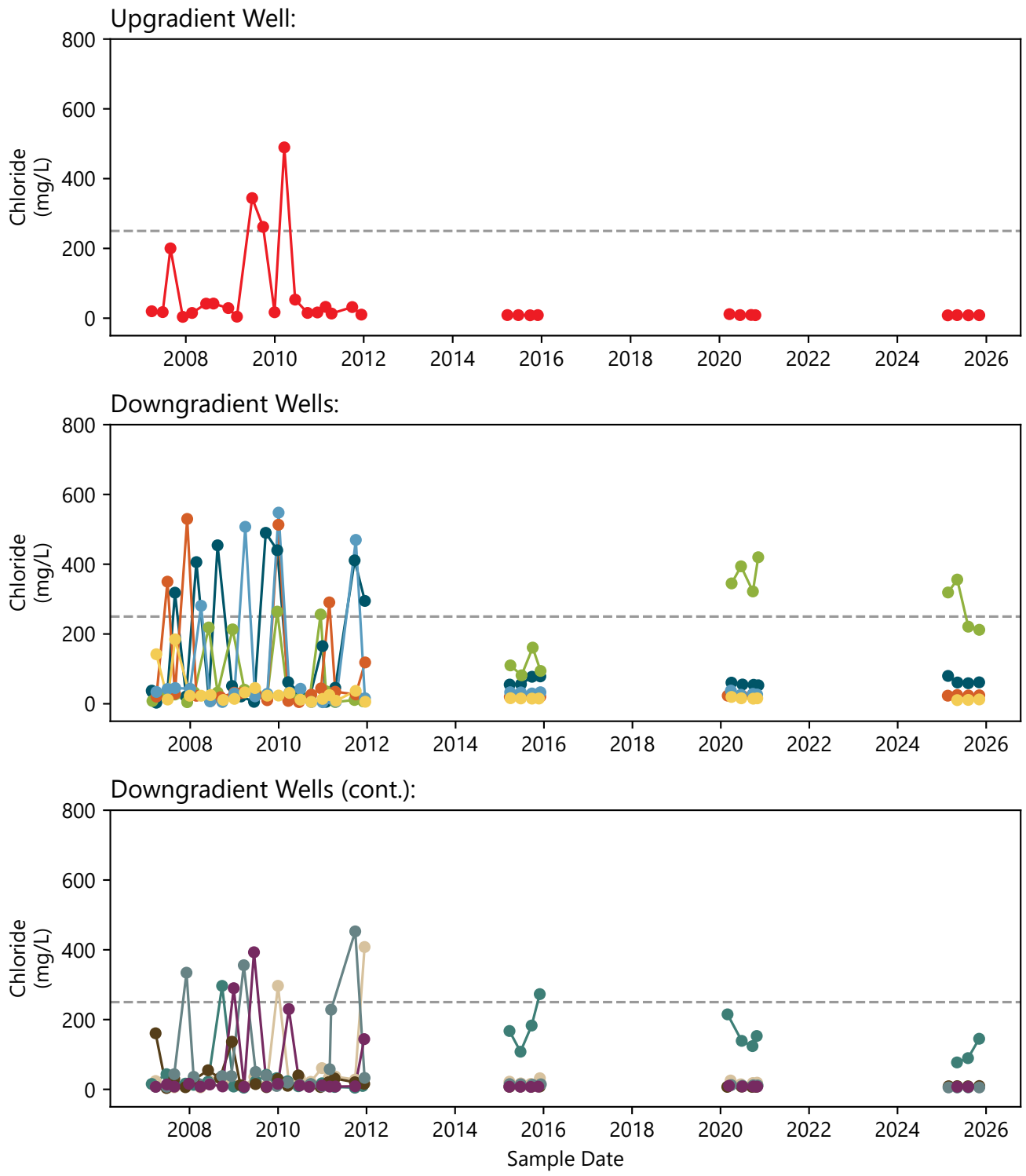



Notes:
SMW-15 and SMW-15R are plotted as the same location.
Data from 2007 through 2020 were downloaded from Ecology's EIM database, and the results cannot be fully verified.

Publish Date: 03/31/2026 13:06 PM | User: LAK-RWILL
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**Figure C-2**
**Calcium Groundwater Concentration**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site



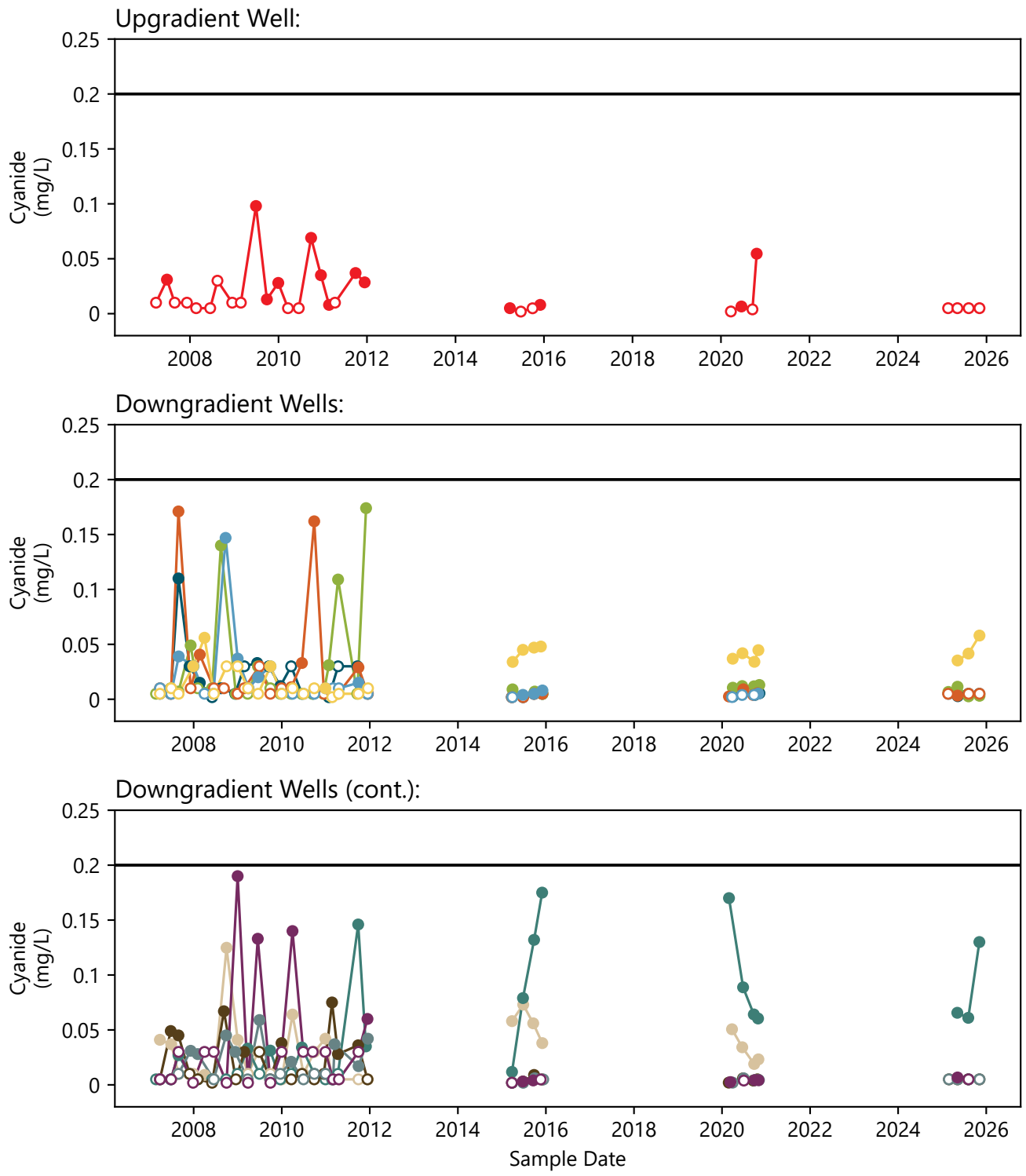

Notes:
SMW-15 and SMW-15R are plotted as the same location.
MCL = maximum contaminant level
Data from 2007 through 2020 were downloaded from Ecology's EIM database, and the results cannot be fully verified.

SMW-2 SMW-8 SMW-12 SMW-15
SMW-3 SMW-9 SMW-13 SMW-19
SMW-6 SMW-10 SMW-14 Secondary MCL

Publish Date: 03/31/2026 13:06 PM | User: LAK-RWILL
C:\Users\rawillis\AppData\Local\ActiveState\3575cf11\lib\runpy.py

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**Figure C-3**
**Chloride Groundwater Concentration**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site



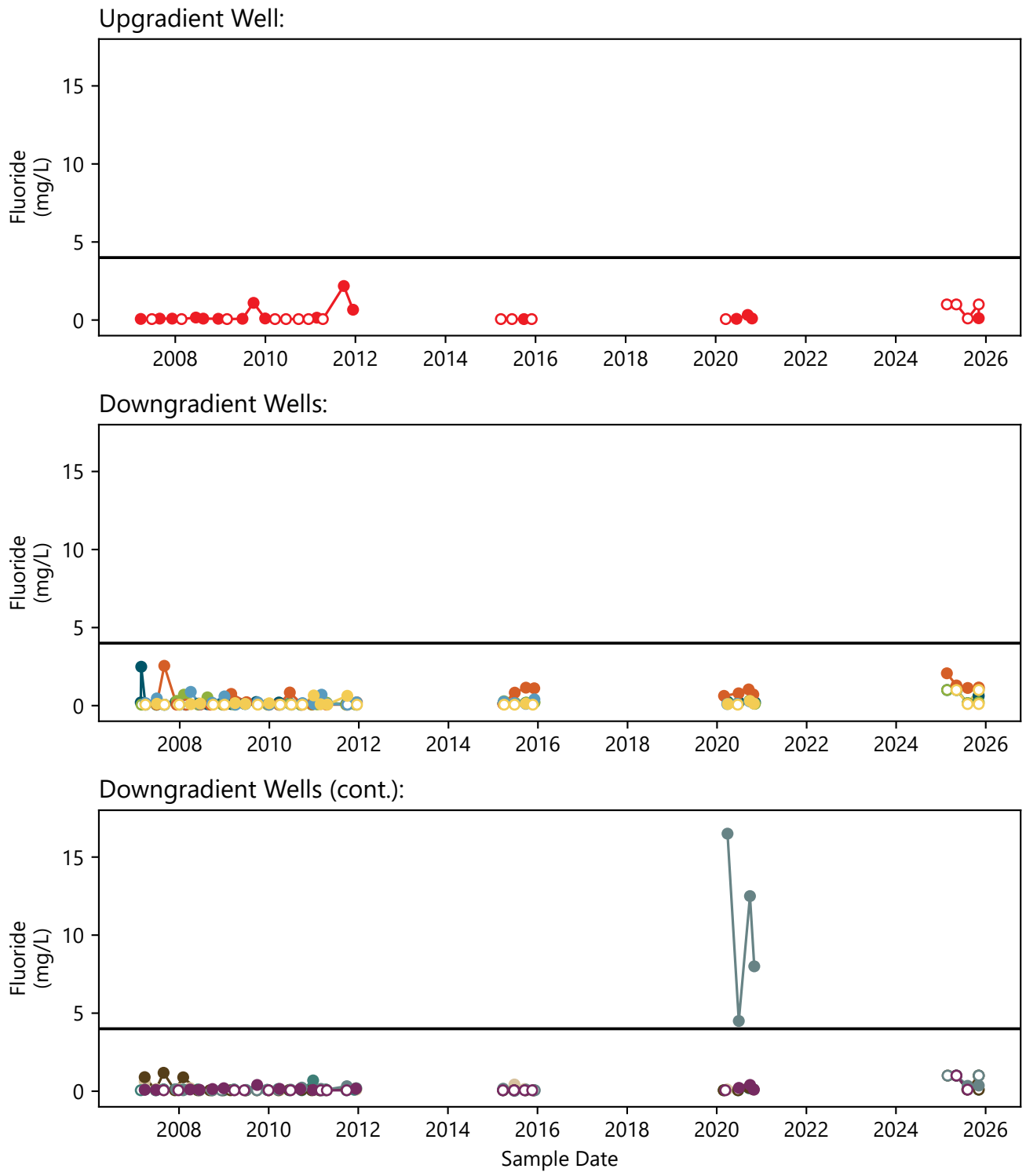

Notes:
SMW-15 and SMW-15R are plotted as the same location.
Non-detects are shown as open circles.
MCL = maximum contaminant level
Data from 2007 through 2020 were downloaded from Ecology's EIM database, and the results cannot be fully verified.

SMW-2 SMW-8 SMW-12 SMW-15
SMW-3 SMW-9 SMW-13 SMW-19
SMW-6 SMW-10 SMW-14 Primary MCL

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C:\Users\rawillis\AppData\Local\ActiveState\3575cf11\lib\runpy.py

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**Figure C-4**
**Cyanide Groundwater Concentration**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site



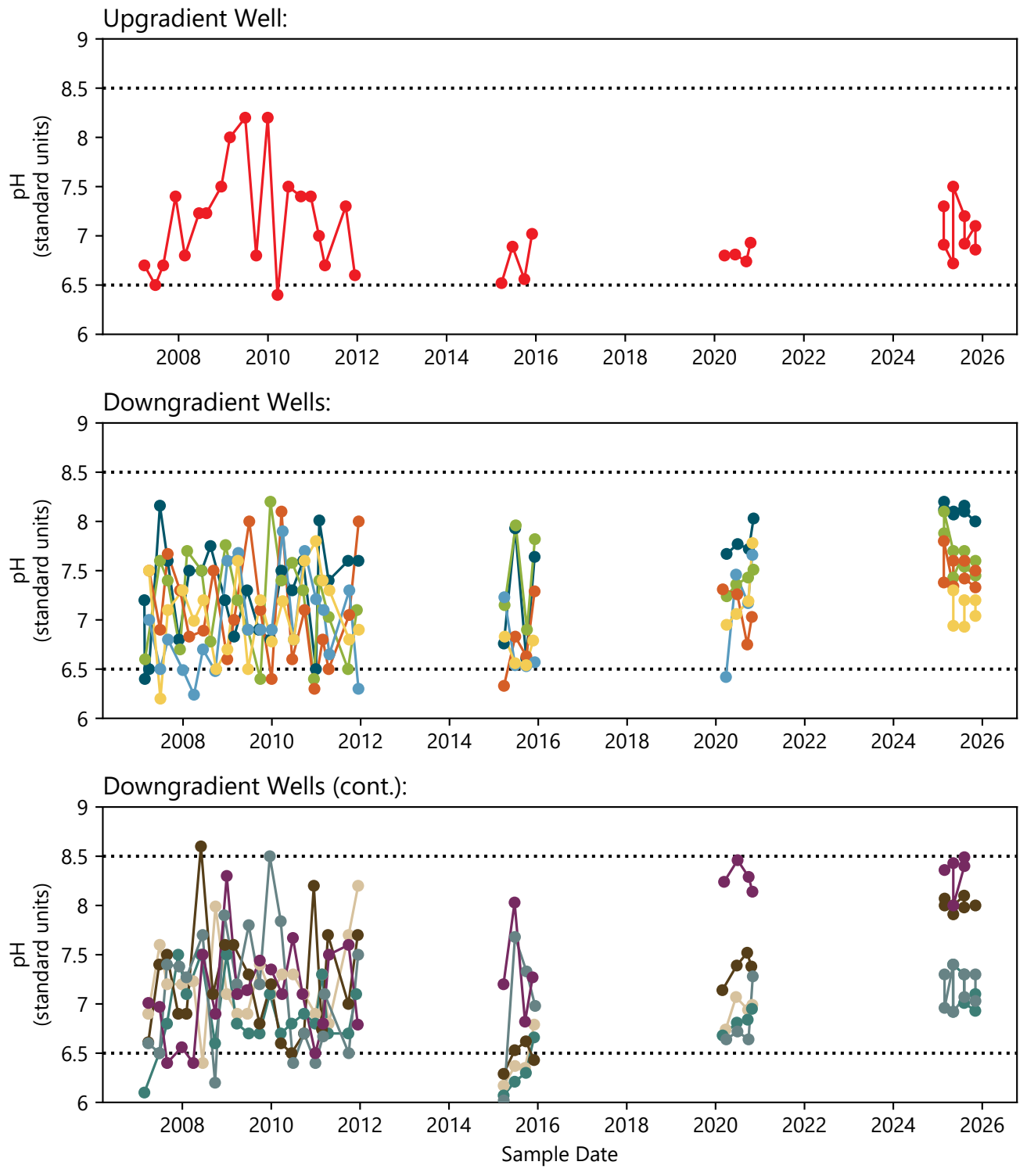

Notes:
SMW-15 and SMW-15R are plotted as the same location.
Non-detects are shown as open circles.
MCL = maximum contaminant level
Data from 2007 through 2020 were downloaded from Ecology's EIM database, and the results cannot be fully verified.

SMW-2 SMW-8 SMW-12 SMW-15
SMW-3 SMW-9 SMW-13 SMW-19
SMW-6 SMW-10 SMW-14 Primary MCL

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**Figure C-5**
**Fluoride Groundwater Concentration**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site



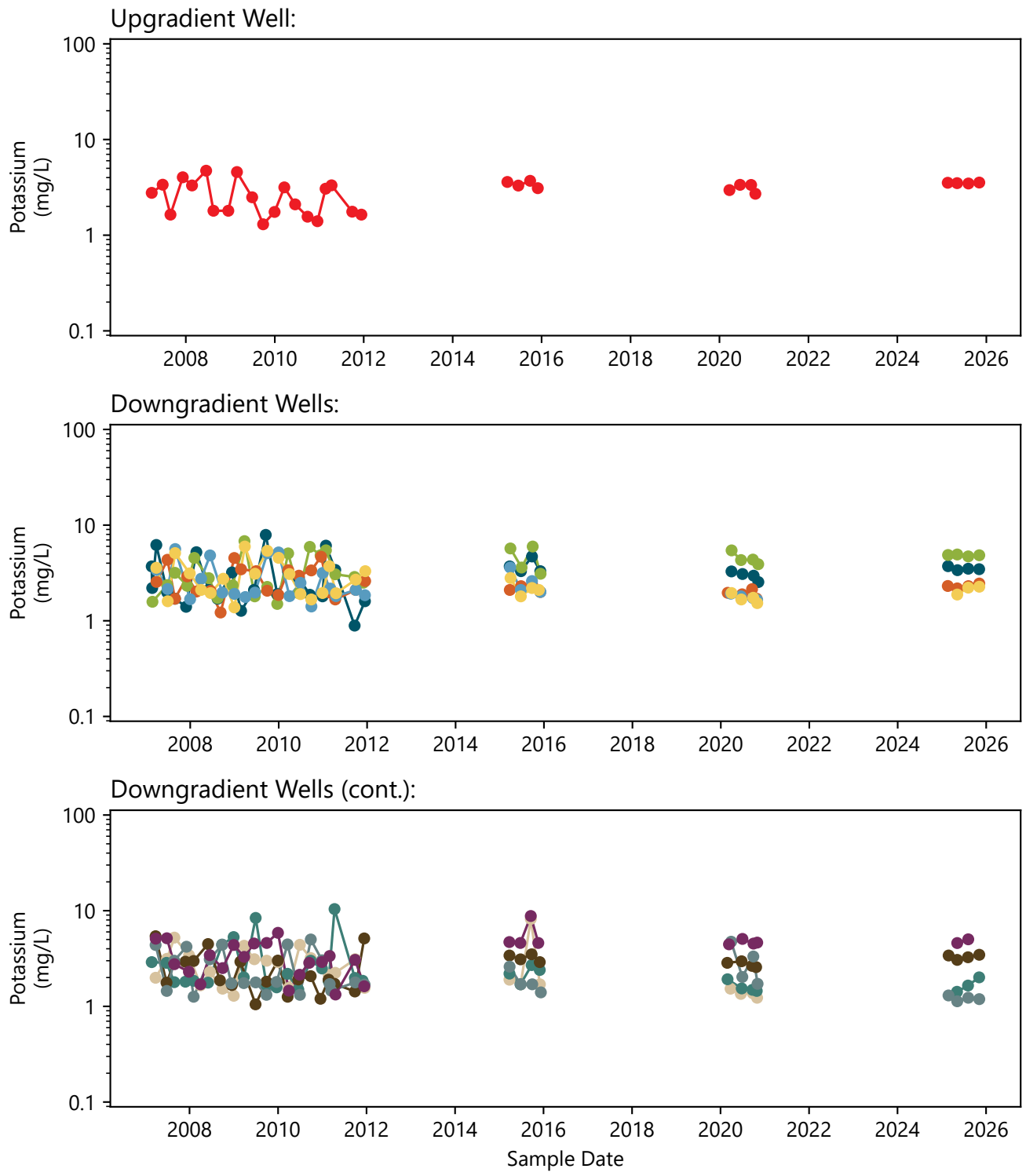

Notes:
SMW-15 and SMW-15R are plotted as the same location.
GWQS = groundwater quality standard
Data from 2007 through 2020 were downloaded from Ecology's EIM database, and the results cannot be fully verified.

SMW-2, SMW-3, SMW-6, SMW-8, SMW-9, SMW-10, SMW-12, SMW-13, SMW-14, SMW-15, SMW-19, Lower GWQS, Upper GWQS

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**Figure C-6**
**pH Groundwater Concentration**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site



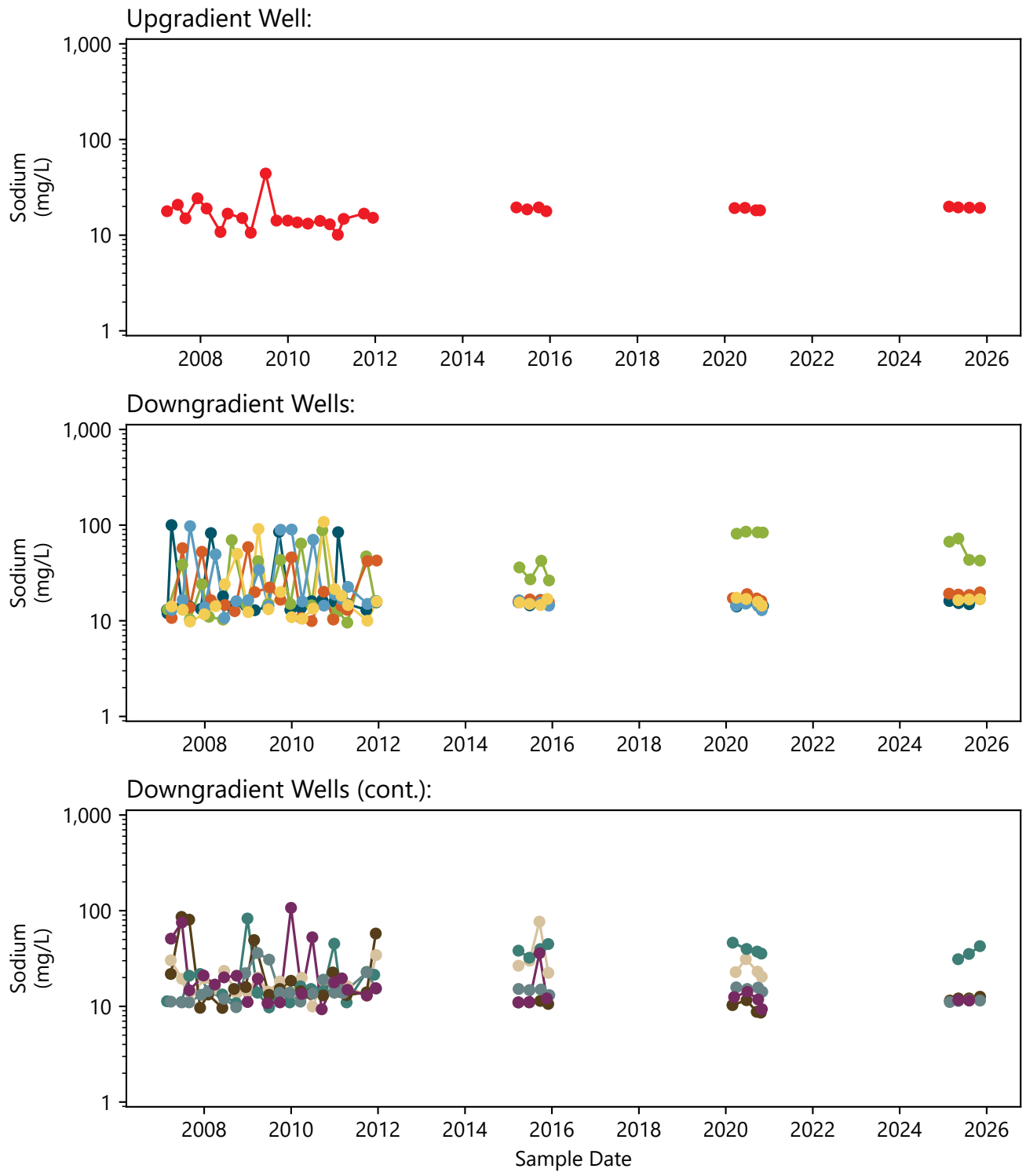

Notes:
SMW-15 and SMW-15R are plotted as the same location.
Data from 2007 through 2020 were downloaded from Ecology's EIM database, and the results cannot be fully verified.

SMW-2, SMW-3, SMW-6, SMW-8, SMW-9, SMW-10, SMW-12, SMW-13, SMW-14, SMW-15, SMW-19

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**Figure C-7**
**Potassium Groundwater Concentration**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site

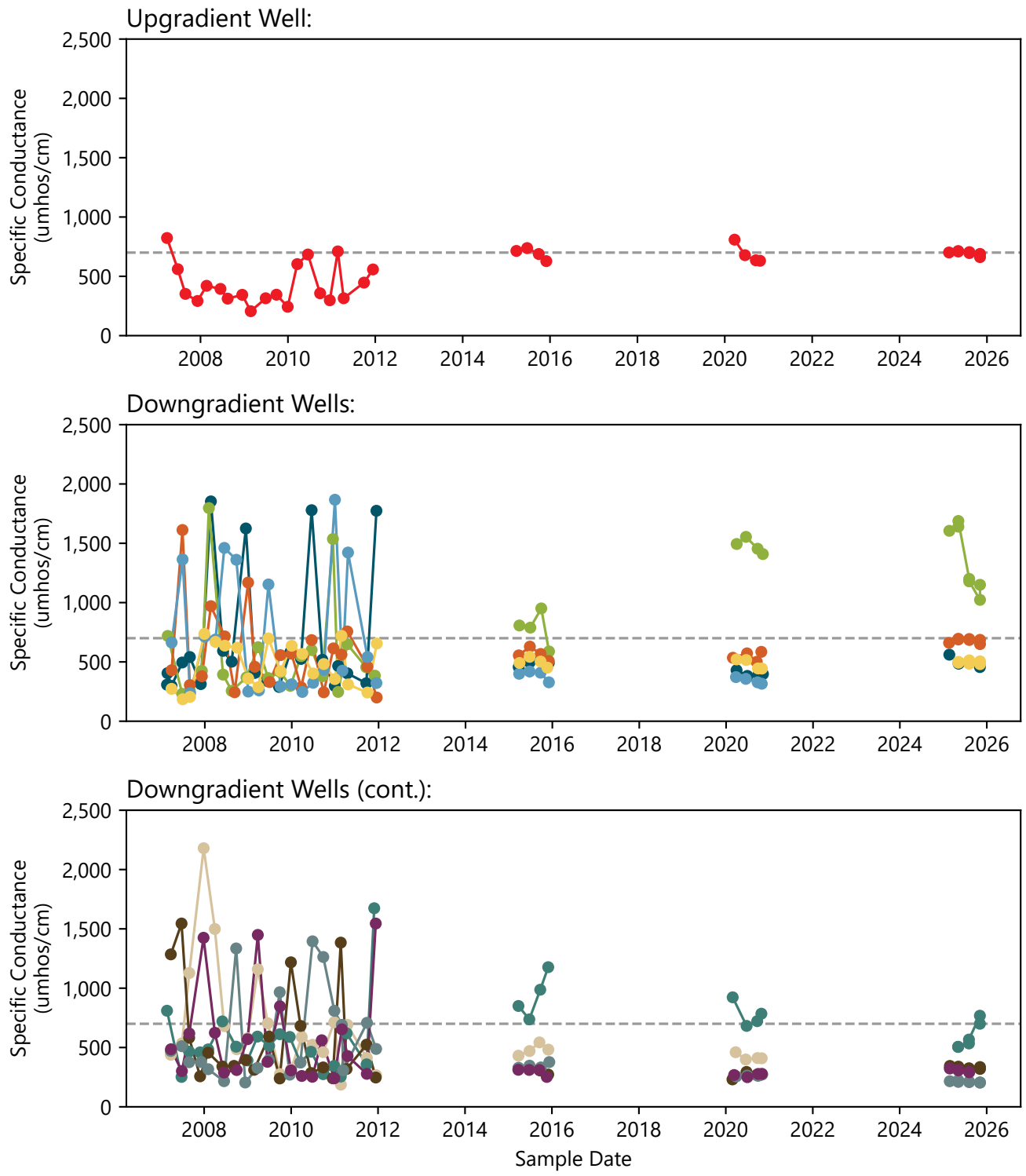



Notes:
SMW-15 and SMW-15R are plotted as the same location.
Data from 2007 through 2020 were downloaded from Ecology's EIM database, and the results cannot be fully verified.

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**Figure C-8**
**Sodium Groundwater Concentration**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site



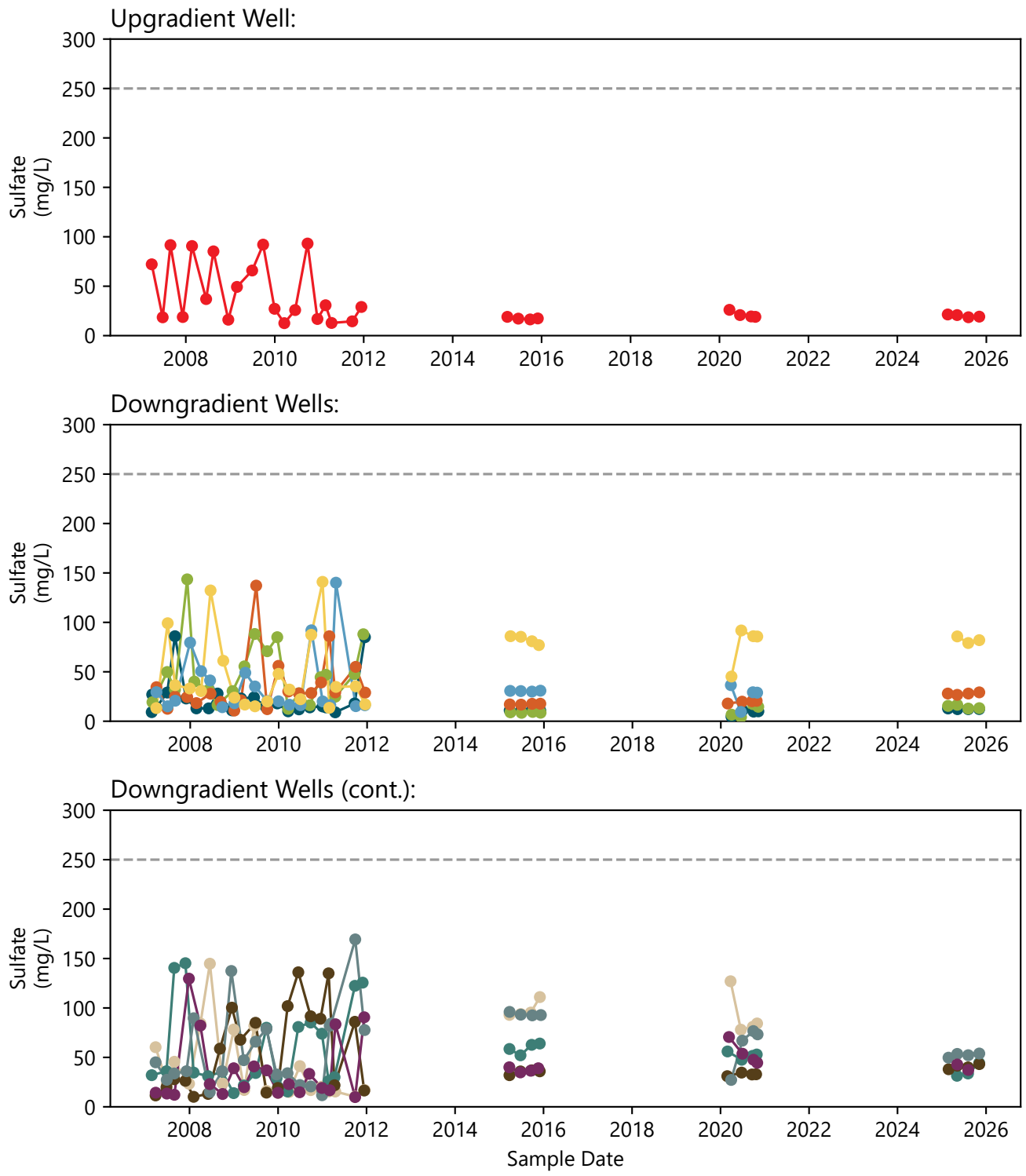

Notes:
SMW-15 and SMW-15R are plotted as the same location.
MCL = maximum contaminant level
Data from 2007 through 2020 were downloaded from Ecology's EIM database, and the results cannot be fully verified.

SMW-2 SMW-8 SMW-12 SMW-15
SMW-3 SMW-9 SMW-13 SMW-19
SMW-6 SMW-10 SMW-14 Secondary MCL

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**Figure C-9**
**Specific Conductance Groundwater Concentration**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site




Notes:
SMW-15 and SMW-15R are plotted as the same location.
MCL = maximum contaminant level
Data from 2007 through 2020 were downloaded from Ecology's EIM database, and the results cannot be fully verified.

SMW-2 SMW-8 SMW-12 SMW-15
SMW-3 SMW-9 SMW-13 SMW-19
SMW-6 SMW-10 SMW-14 Secondary MCL

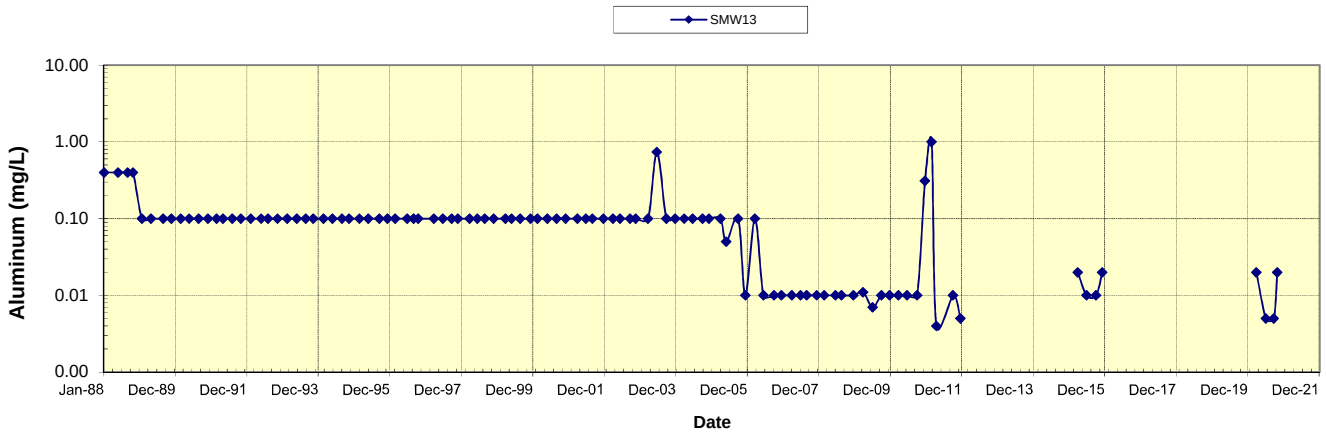
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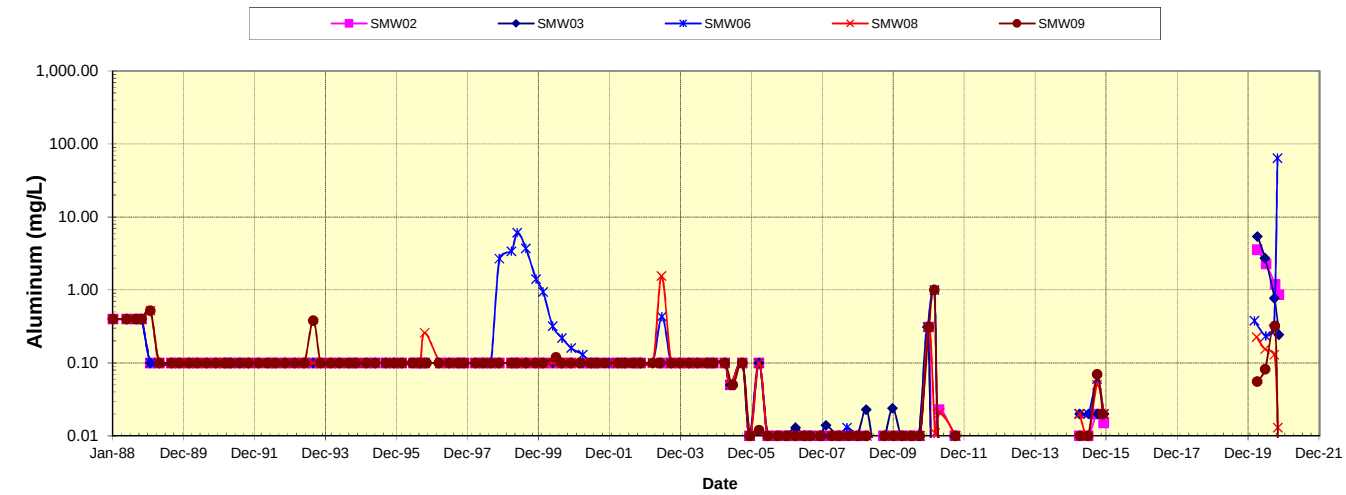
**Figure C-10**
**Sulfate Groundwater Concentration**
Post-Closure Groundwater Monitoring Third Report, Year 2025
Former Intalco Smelter Site

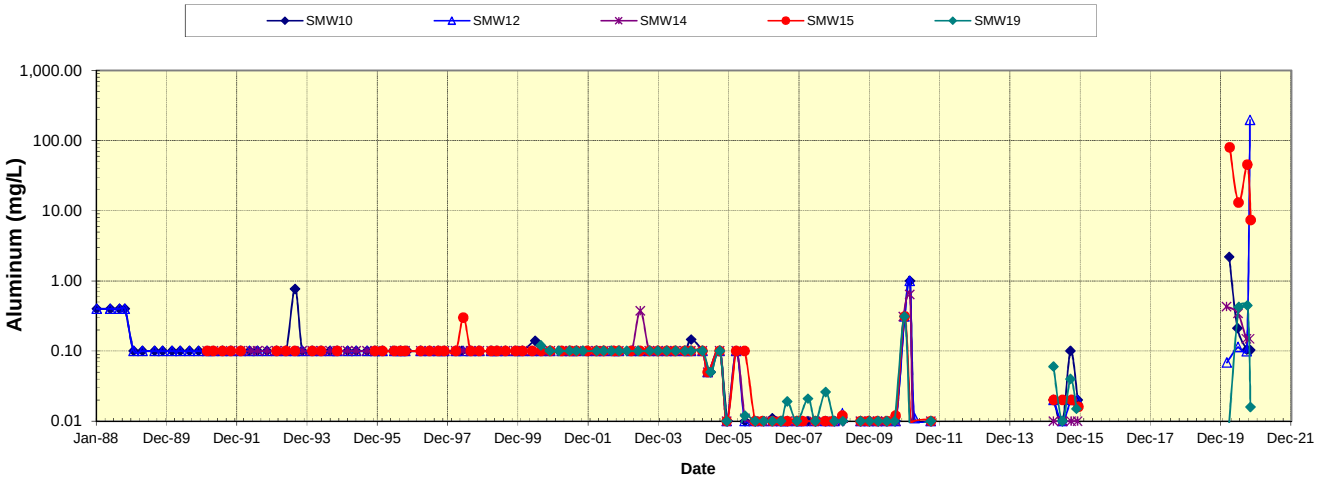
# Appendix D
# Historical Time-Series Plots 1988 to 2020

**UPGRADIENT WELL:**



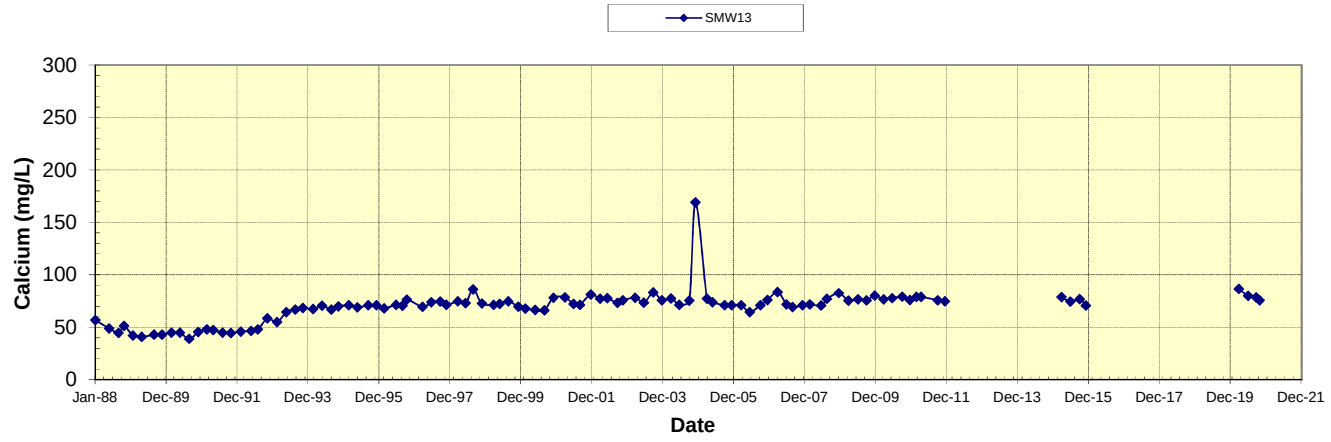

**DOWNGRADIENT WELLS:**



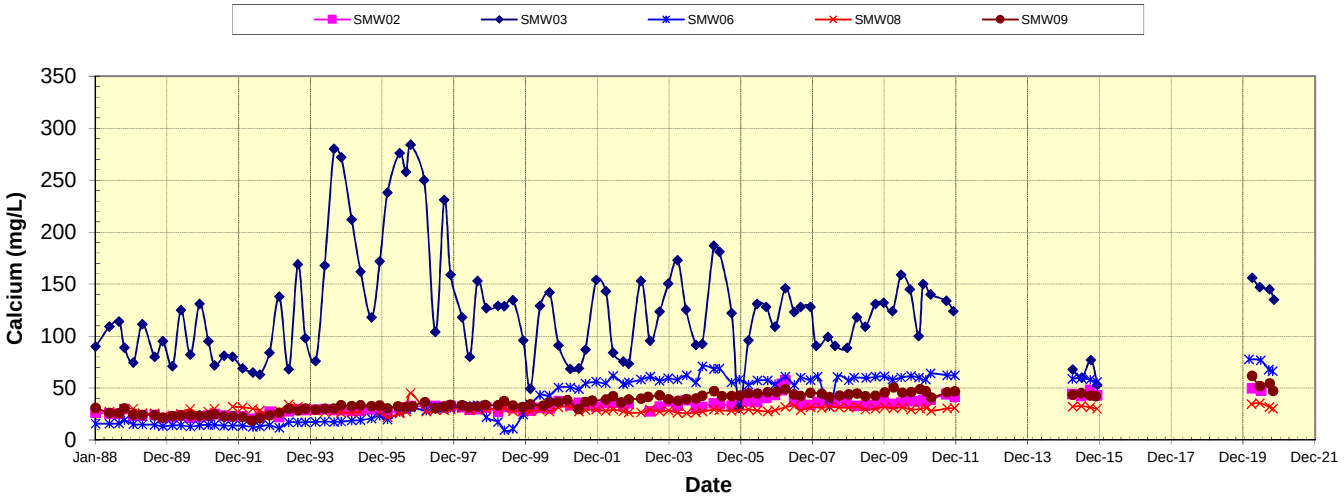



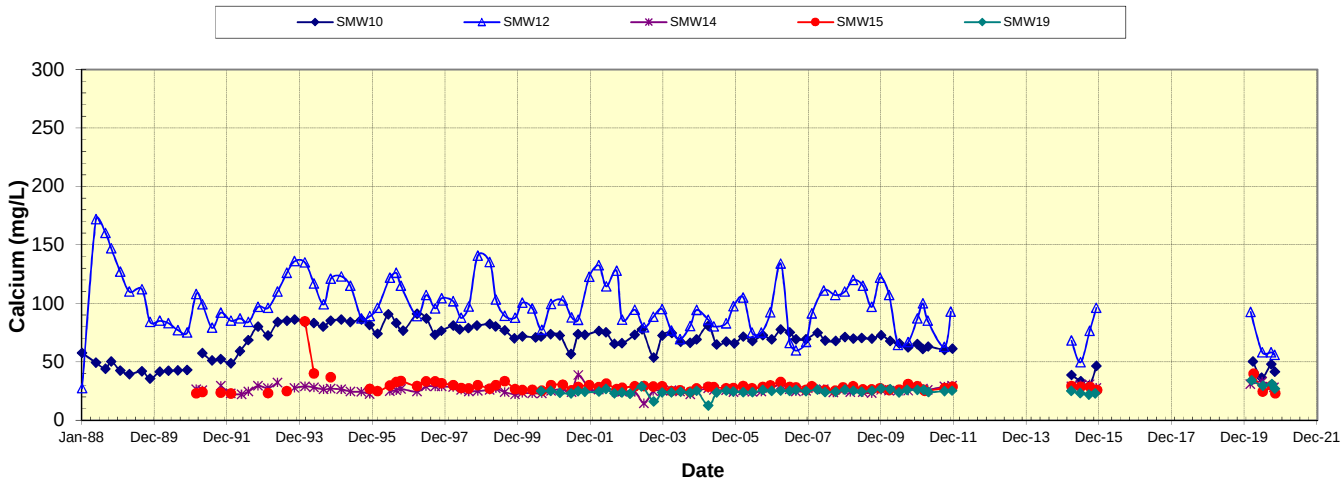

**Time Series Plots**
**Aluminum (mg/L)**

**UPGRADIENT WELL:**



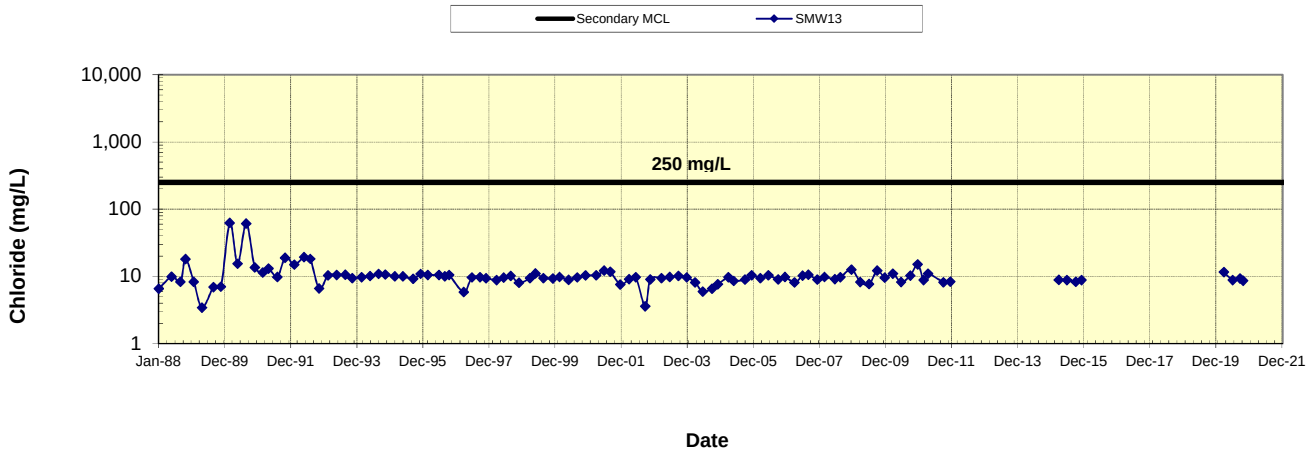

**DOWNGRADIENT WELLS:**



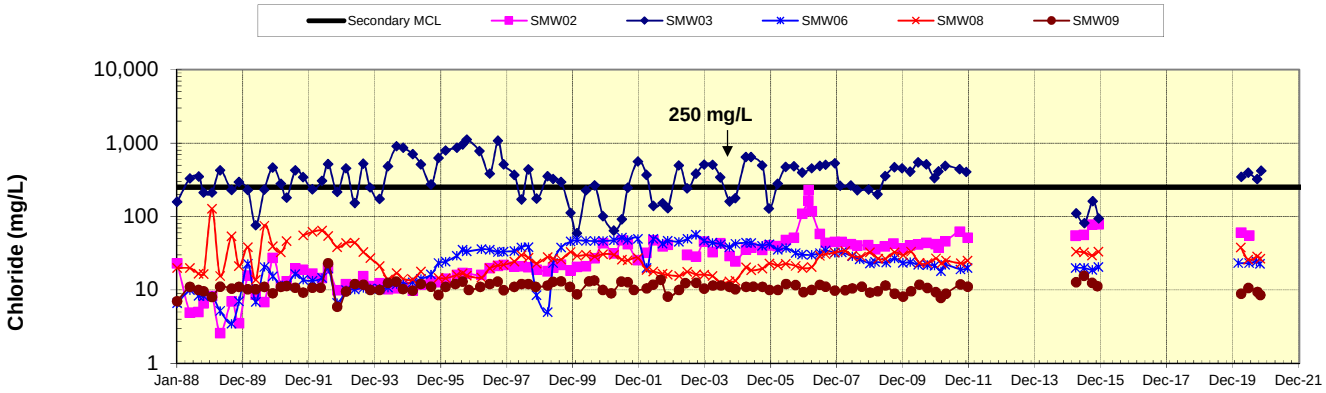



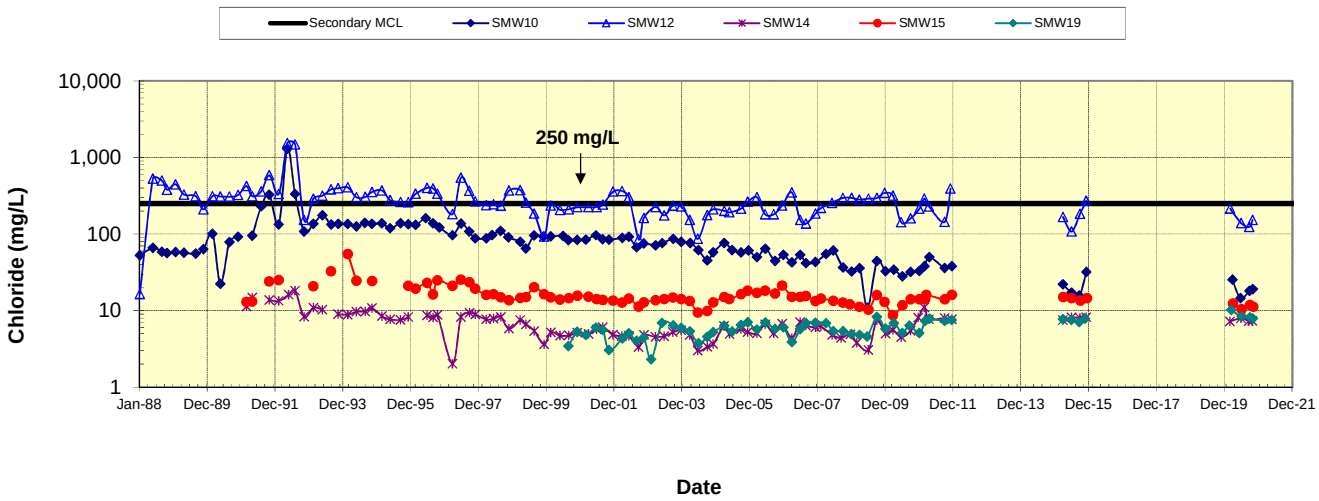

**Time Series Plots**
**Calcium (mg/L)**

**UPGRADIENT WELL:**



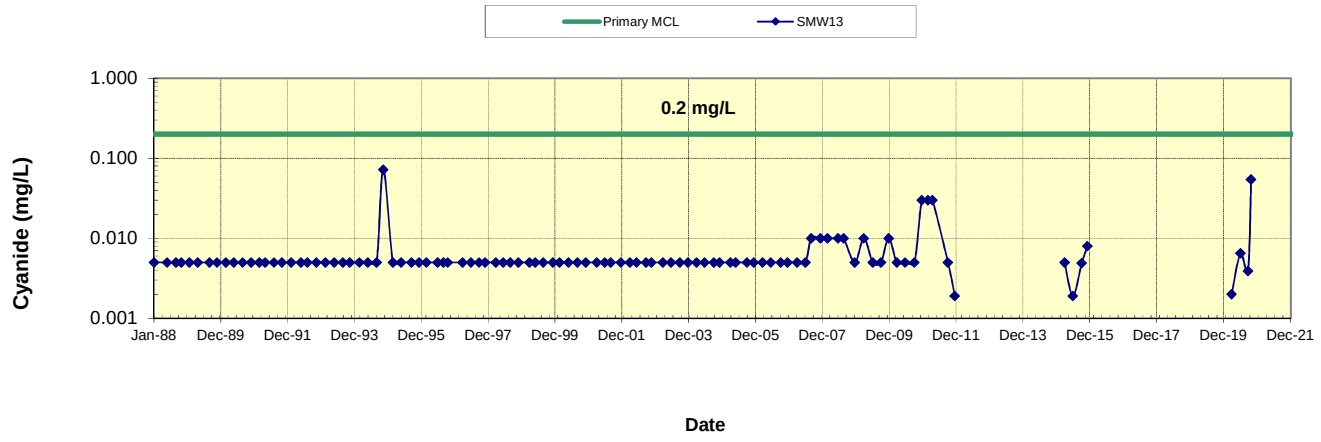

**DOWNGRADIENT WELLS:**



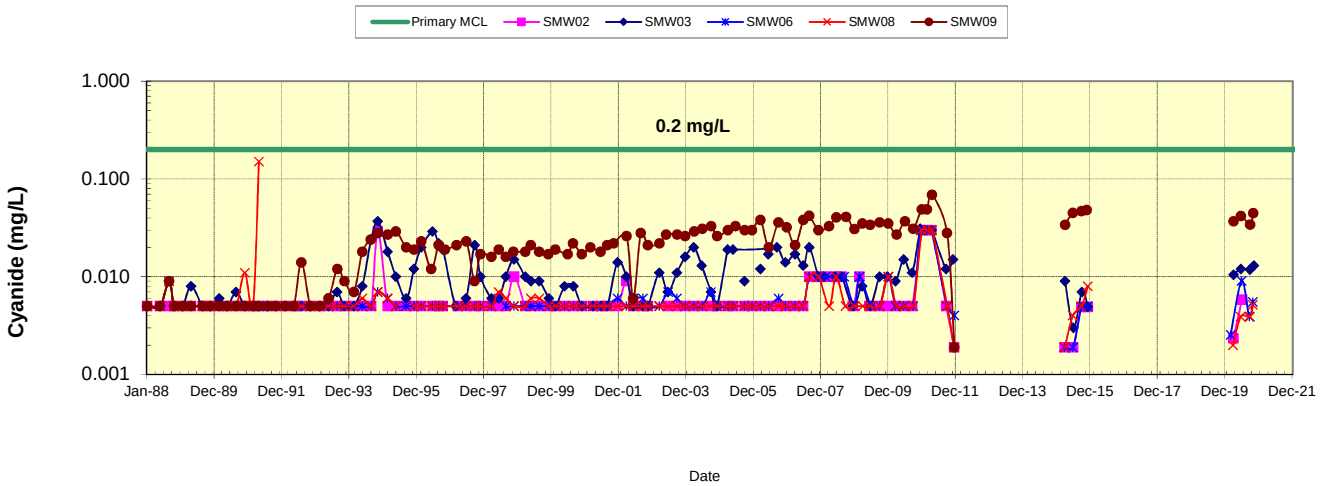



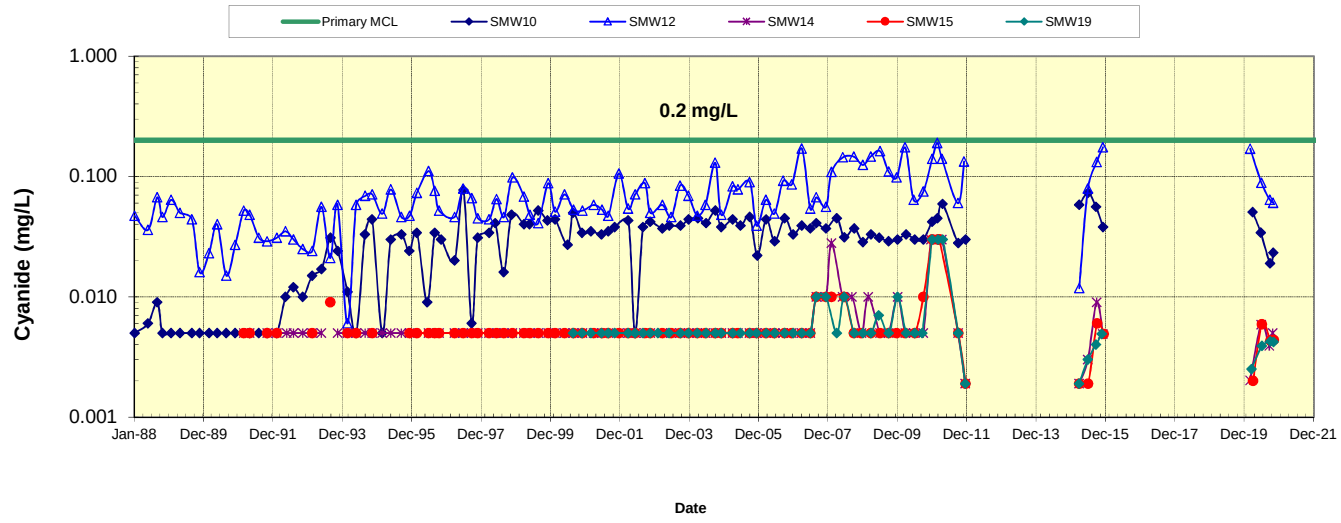

**Time Series Plots**
**Chloride (mg/L)**

**UPGRADIENT WELL:**



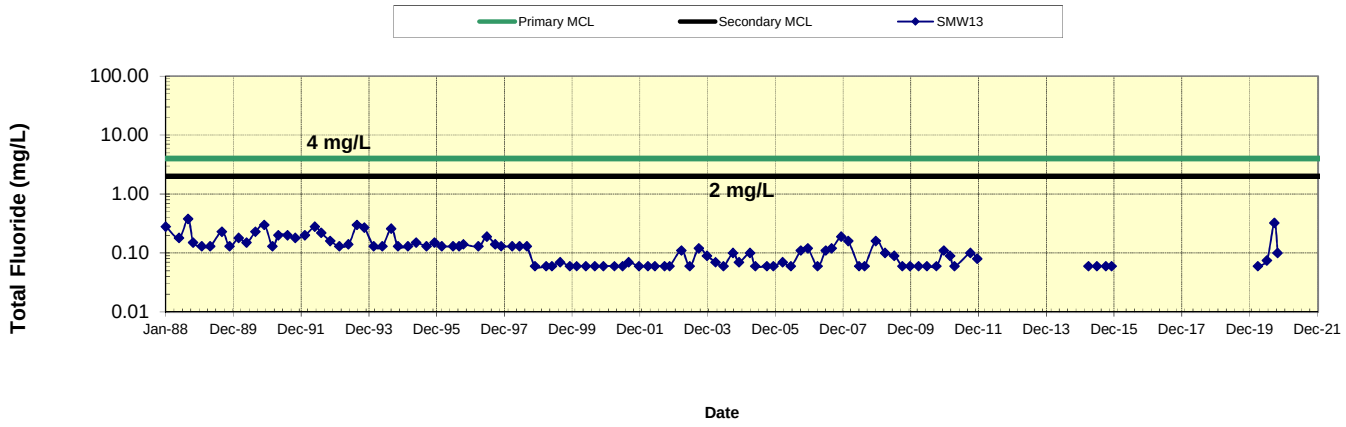

**DOWNGRADIENT WELLS:**



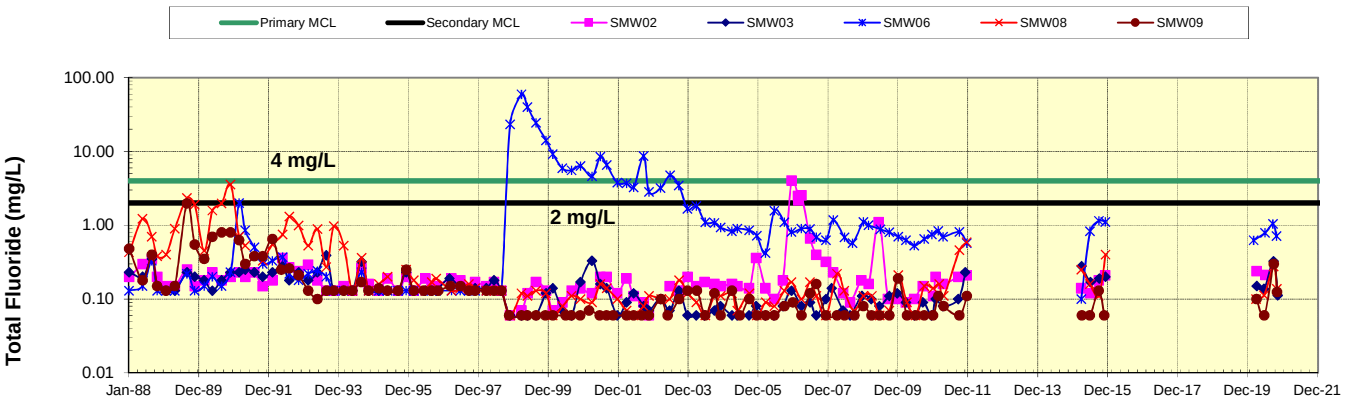



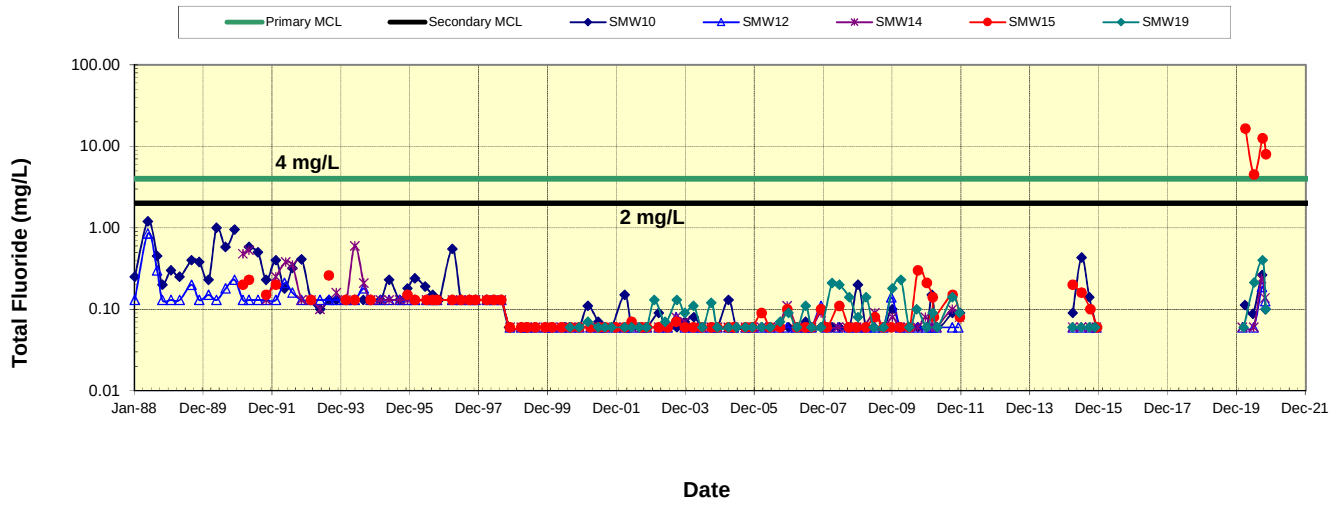

**Time Series Plots**
**Cyanide (mg/L)**

**UPGRADIENT WELL:**



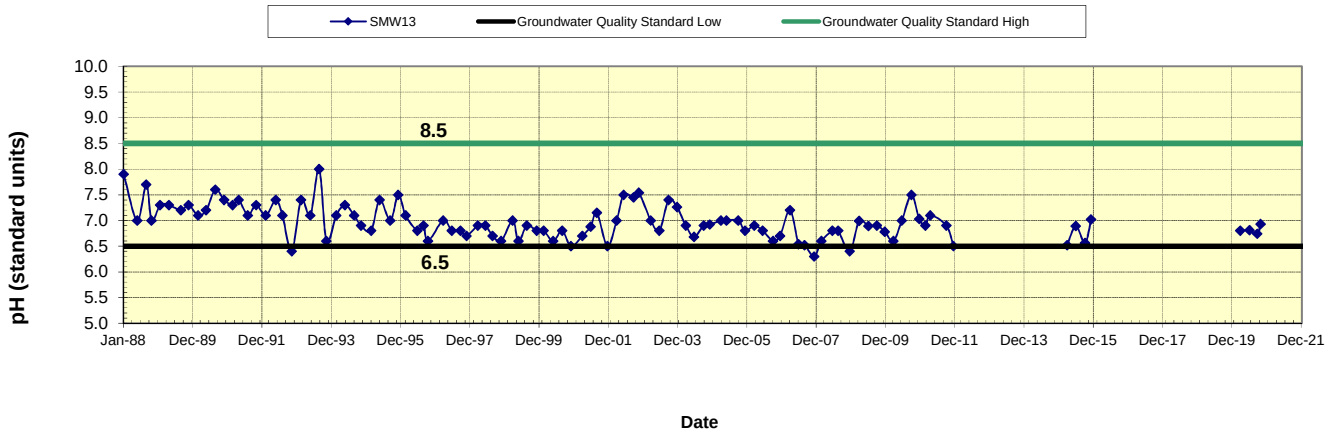

**DOWNGRADIENT WELLS:**



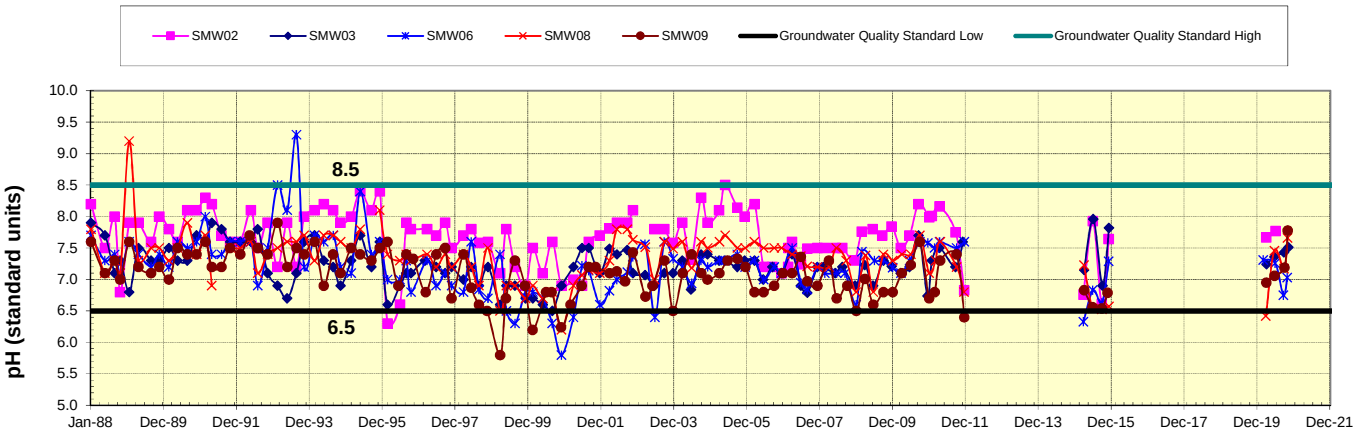



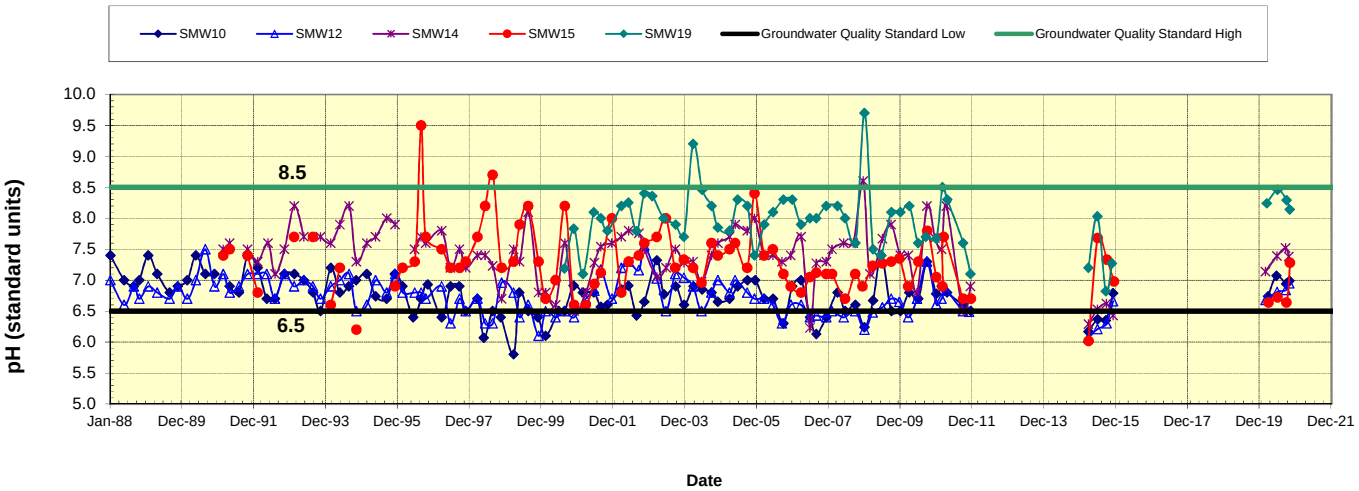

**Time Series Plots**
**Fluoride (mg/L)**

**UPGRADIENT WELL:**



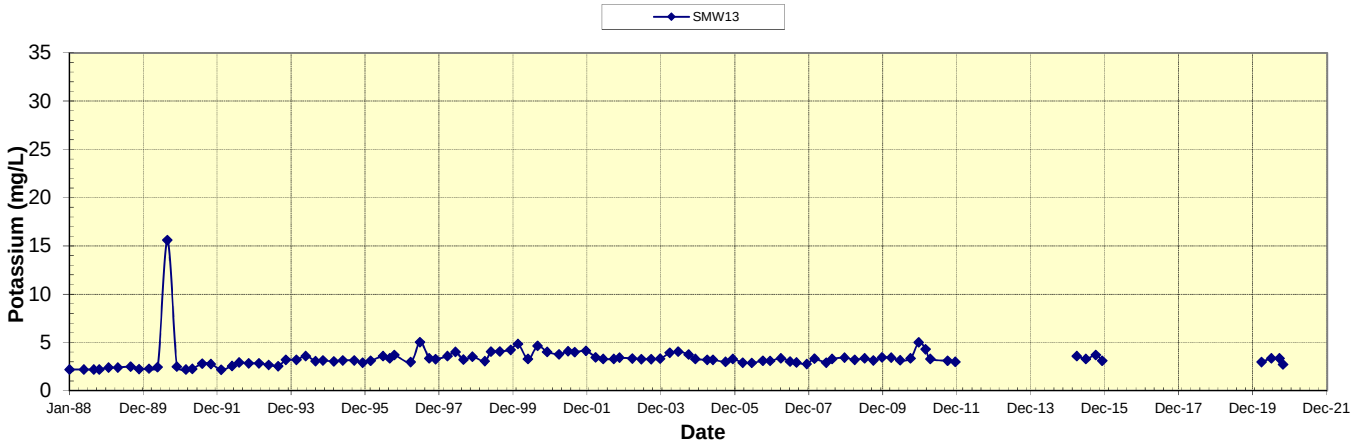

**DOWNGRADIENT WELLS:**



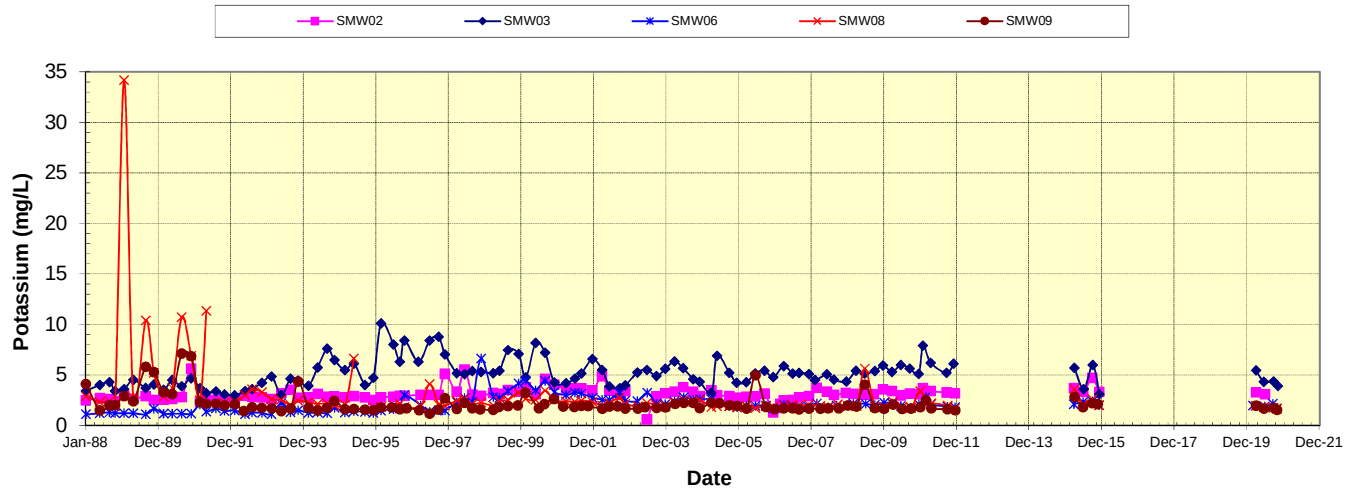



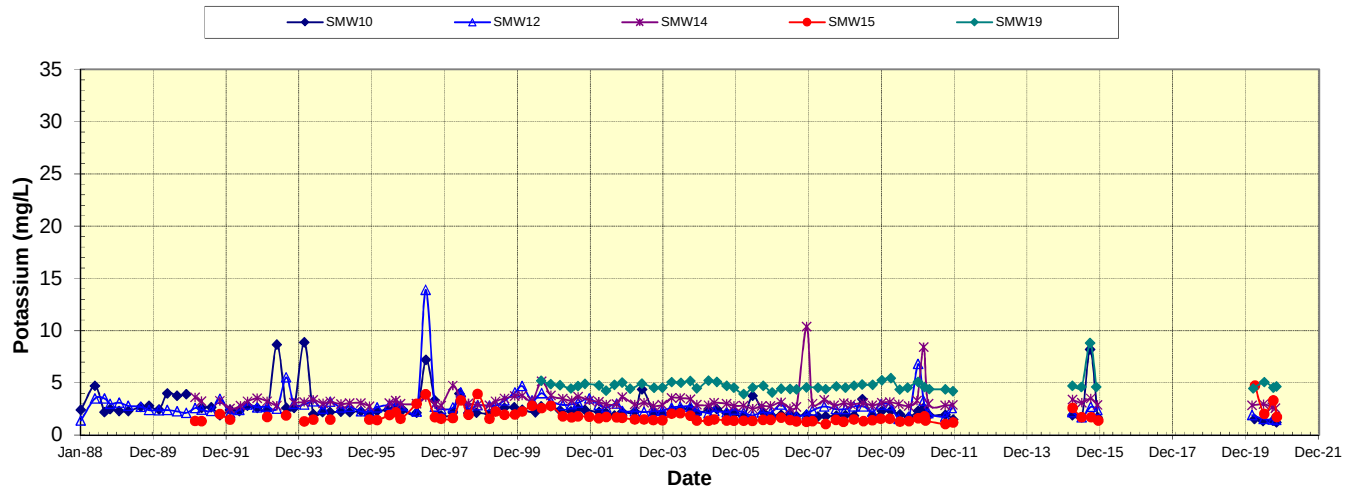

**Time Series Plots**
**pH (Standard Units)**

**UPGRADIENT WELL:**



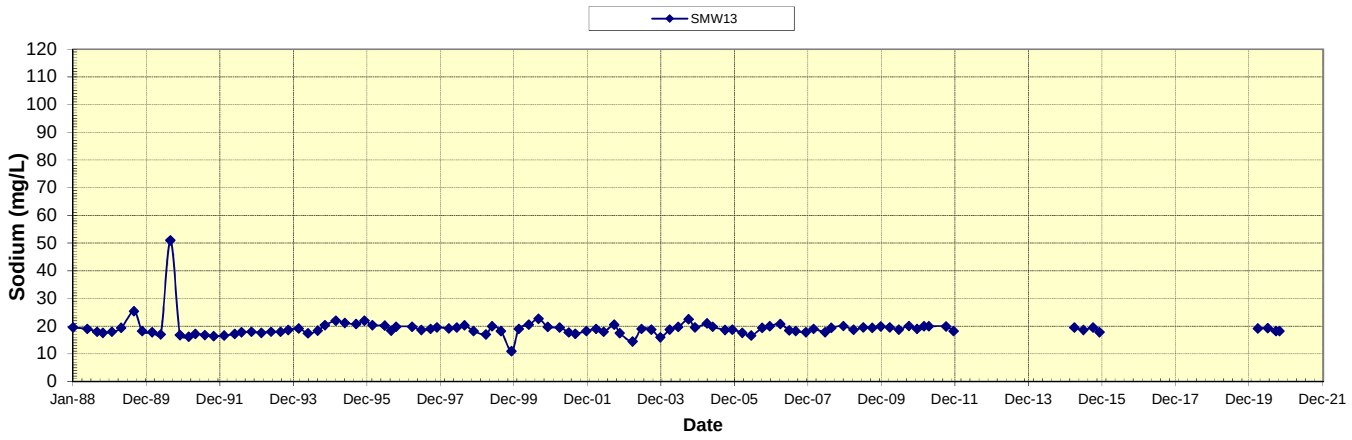

**DOWNGRADIENT WELLS:**



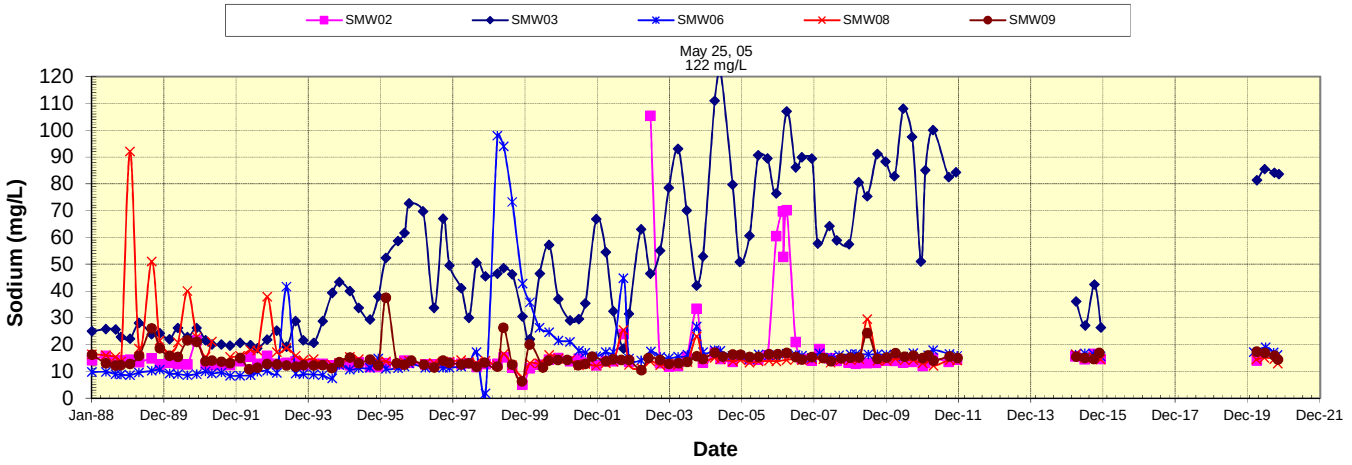



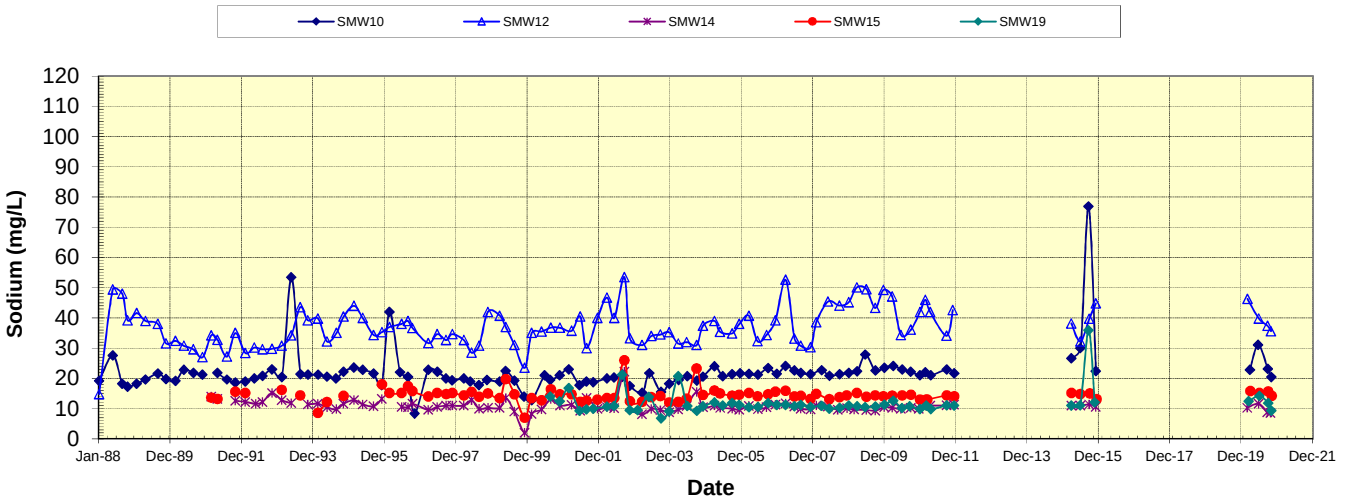

**Time Series Plots**
**Potassium (mg/L)**

**UPGRADIENT WELL:**



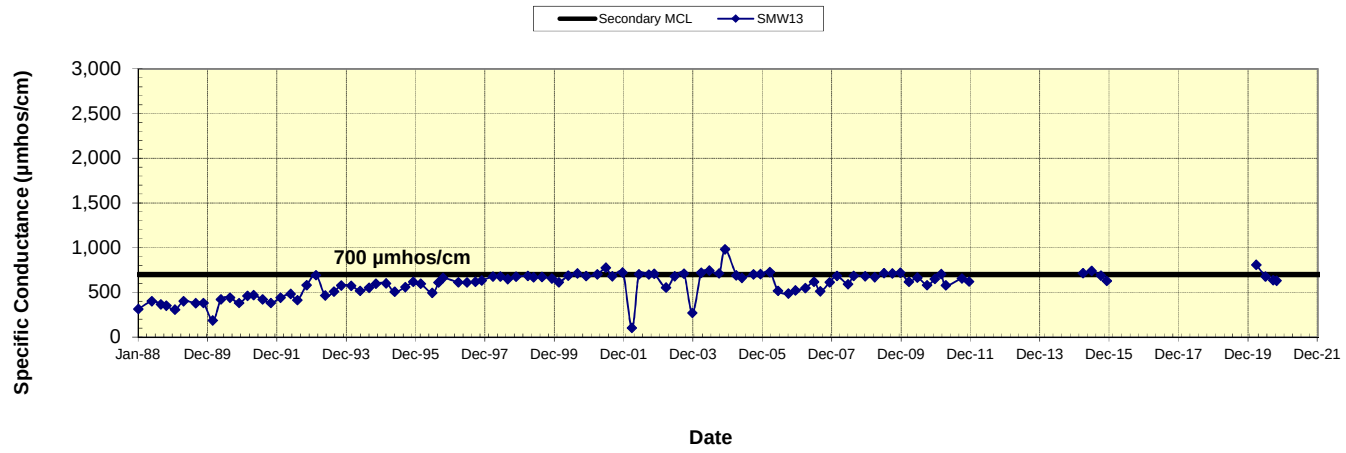

**DOWNGRADIENT WELLS:**



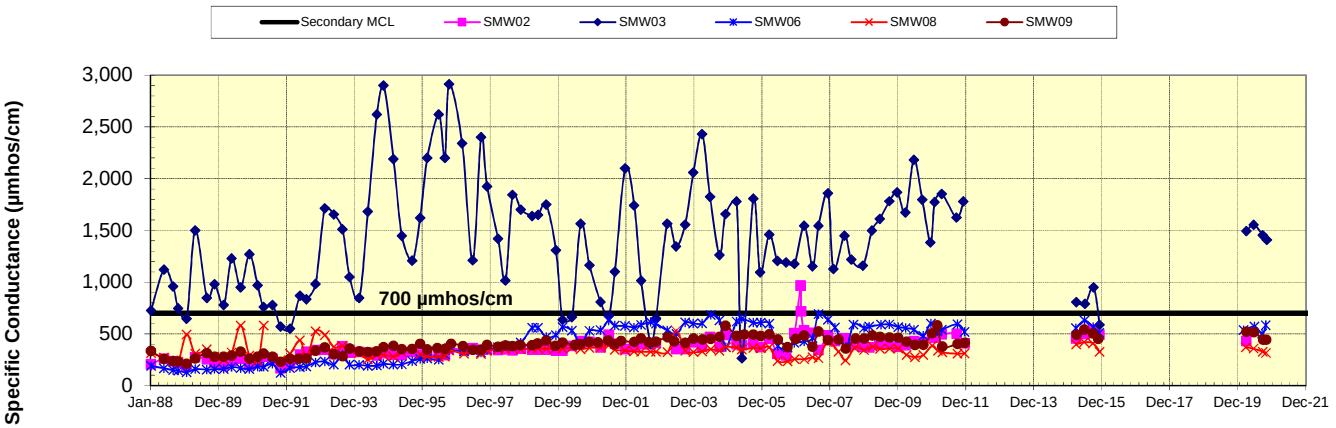



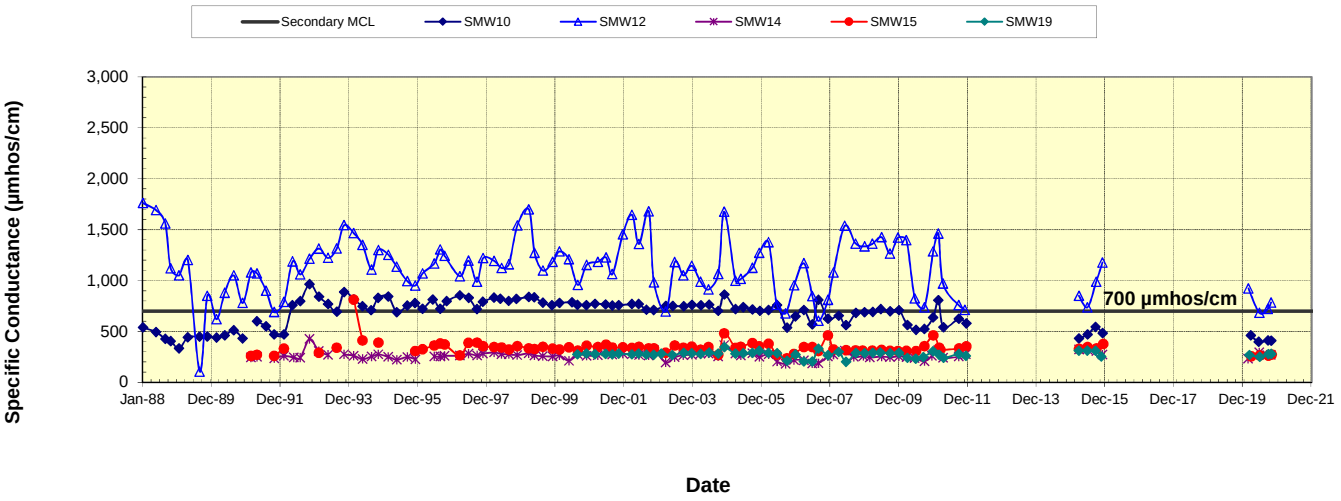

**Time Series Plots**
**Sodium (mg/L)**

**UPGRADIENT WELL:**



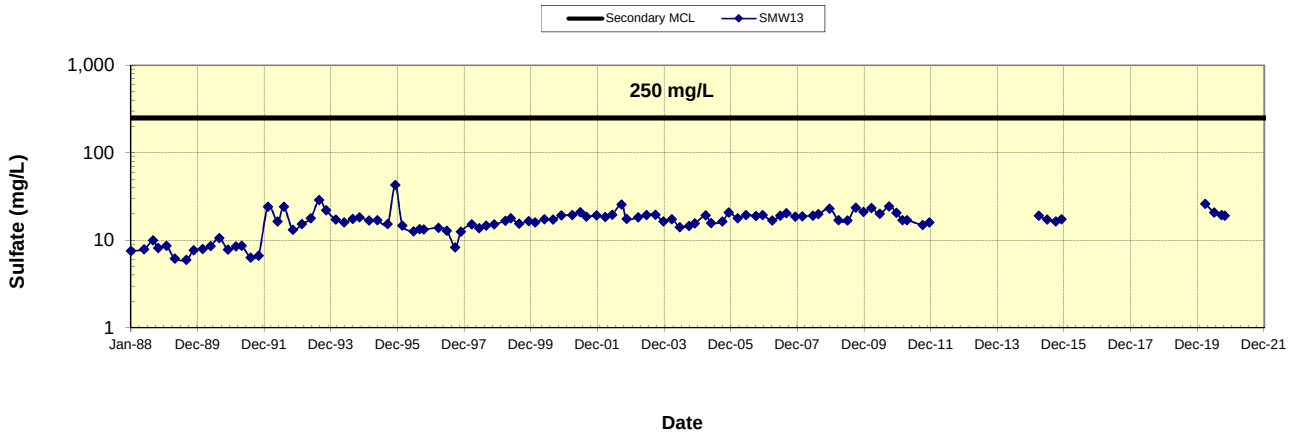

**DOWNGRADIENT WELLS:**



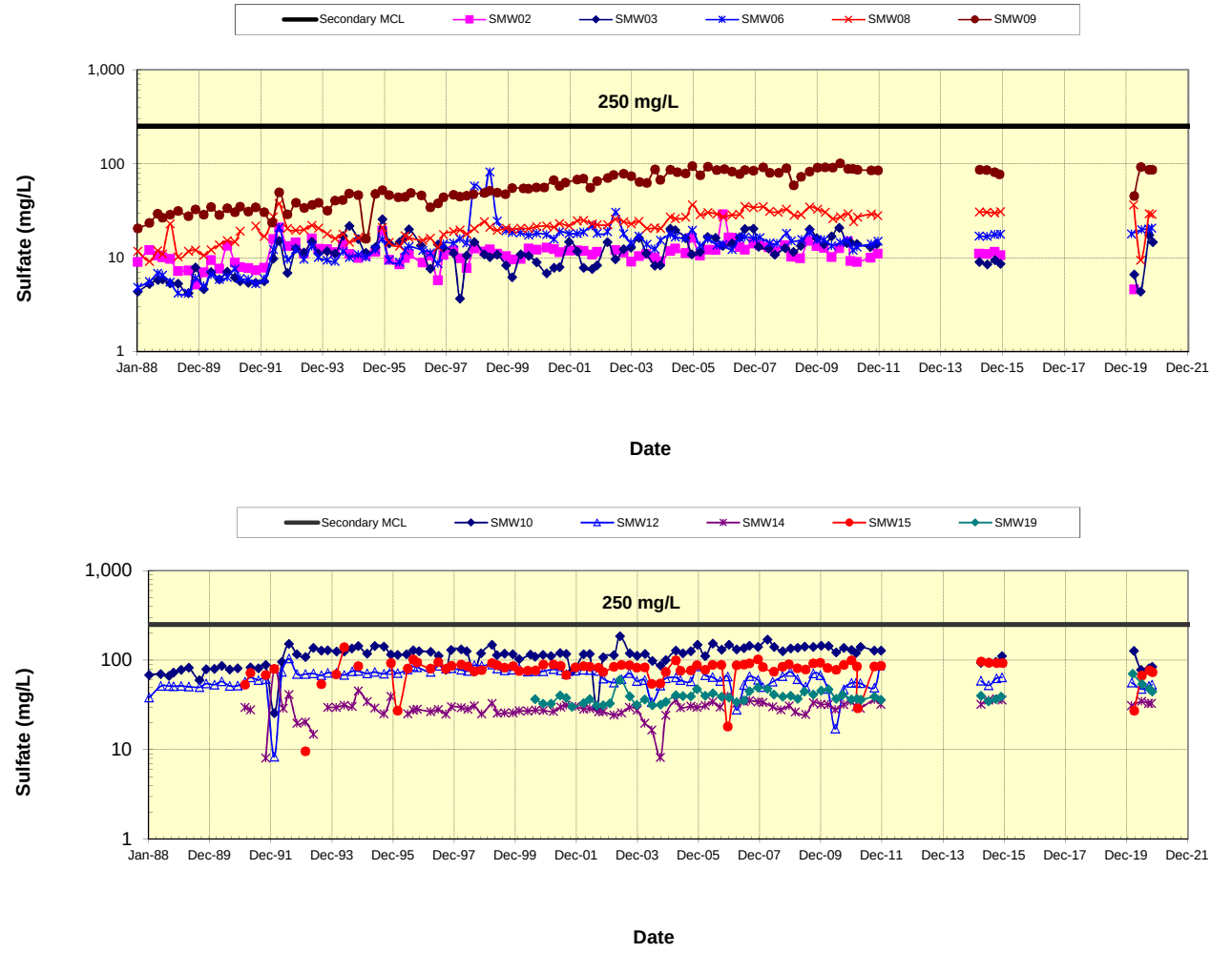




**Time Series Plots**
**Specific Conductance (µmhos/cm)**

**UPGRADIENT WELL:**




**DOWNGRADIENT WELLS:**




**Time Series Plots**
**Sulfate (mg/L)**