



The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

Via Email to losangeles@waterboards.ca.gov

February 15, 2024

In reply, refer to SHEA-116745

Information Technology Unit
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, California 90013

Subject: Fourth Quarter 2023 NPDES Discharge Monitoring Report
Compliance File CI-6027 and NPDES No. CA0001309
Santa Susana Field Laboratory
Ventura County, California

The Boeing Company (Boeing) hereby submits this Discharge Monitoring Report (DMR) for the Santa Susana Field Laboratory (Santa Susana Site) for the period of October 1 through December 31 (Fourth Quarter 2023). This DMR was prepared as required by, and in accordance with the National Pollutant Discharge Elimination System Permit No. CA0001309 (NPDES Permit) issued by the Los Angeles California Regional Water Quality Control Board (Regional Board) in 2015. The NPDES Permit covers the entire Santa Susana Site, which includes approximately 2,400 acres owned by Boeing, approximately 450 acres owned by the United States and administered by the National Aeronautics and Space Administration (NASA), and approximately 472 acres of Boeing's land for which the Department of Energy (DOE) has assumed responsibility for soil remediation.

An electronic version of this DMR is located at: <http://www.boeing.com/principles/environment/santa-susana/monitoring-reports.page>.

FOURTH QUARTER 2023 DMR CONTENTS

This DMR includes the following sections and appendices:

- **Discharge and Sample Collection Summary:** This section describes the number of rain events, the number of samples collected, sample dates, and sample locations during the Fourth Quarter 2023. Table I summarizes the Fourth Quarter 2023 sampling record by outfall or location, sample frequency, and sample type collected per the requirements of the NPDES Permit.
- **Summary of Exceedances and/or Non-Compliance:** This section summarizes the Fourth Quarter 2023 sample results that exceeded NPDES Permit Limits, Benchmarks, and Receiving Water Limits, and the potential causes thereof.
- **Stormwater Treatment System at Outfall 011 Activities:** This section summarizes the Fourth Quarter 2023 activities at the stormwater treatment system (SWTS) at Outfall 011.
- **Stormwater Treatment System at Outfall 018 Activities:** This section summarizes the Fourth Quarter 2023 activities at the SWTS at Outfall 018.
- **Stormwater Pollution Prevention Plan/Best Management Practice Activities:** This section presents the Santa Susana Site-Wide Stormwater Pollution Prevention Plan (SWPPP) and Best Management Practice (BMP)-related activities implemented in the Fourth Quarter 2023 as well as activities

associated with NASA, DOE, the Stormwater Expert Panel (Expert Panel), NASA and Boeing BMP Monitoring-related activities, and Other BMP Activities. Table II summarizes typical BMP-related activities that occur at outfalls every quarter. Table III summarizes specific SWPPP/BMP activities completed during the Fourth Quarter 2023 by location. Table IV summarizes activities completed in coordination with the Expert Panel during the Fourth Quarter 2023.

- **Reasonable Potential Analysis:** This section discusses the results of the analysis.
- **Figure 1** shows the stormwater collection and conveyance system, the Bell Creek Receiving Water sampling location (RSW-001, Outfall 002), and Santa Susana Site features; **Figure 2** shows the Arroyo Simi Receiving Water sampling location (RSW 002, Frontier Park) and upstream monitoring location.
- **Appendix A** summarizes the rainfall measured at the Santa Susana Site during the Fourth Quarter 2023.
- **Appendix B** tabulates waste shipments during the Fourth Quarter 2023.
- **Appendix C** presents chemical analytical results from the Fourth Quarter 2023 stormwater and/or receiving water sample discharge monitoring by sampling locations, constituents evaluated (analytes), sample dates, and data validation qualifiers.
- **Appendix D** summarizes the NPDES Permit limit, benchmark, and Receiving Water limit exceedances.
- **Appendix E** contains copies of the laboratory analytical reports, chain-of-custody forms, and data validation reports (if validation was performed).
- **Appendix F** tabulates the Reasonable Potential Analysis.
- **Appendix G** presents the observations of the receiving water monitoring program required by the NPDES Permit and includes the Arroyo Simi, Bell Creek, and Dayton Canyon surveys.

DISCHARGE AND SAMPLE COLLECTION SUMMARY

The Santa Susana Site had three qualifying rain events during the Fourth Quarter 2023 that measured greater than 0.1 inch of rainfall within a 24-hour period and were preceded by at least 72 hours of dry weather (Appendix A). Automated flow-weighted composite samplers (autosamplers) were set in preparation for all rain events. Two qualifying rain events produced stormwater discharges. Stormwater samples were collected at Outfalls 001, 002, 008, and 009, in one or more rain events. There were no changes in the discharge as described in the NPDES Permit during the reporting period.

In addition to outfall sampling, receiving water samples were collected. An off-site receiving water sample was collected at the Arroyo Simi location (RSW-002, Frontier Park; see Figure 2) and an on-site receiving water sample was collected at the Bell Creek location (RSW-001, Outfall 002, see Figure 1).

Table I summarizes the Fourth Quarter 2023 sampling record by outfall or location, sample frequency, and sample type collected per NPDES Permit requirements, and results are included in Appendix C.

TABLE I: Sampling Record during the Fourth Quarter 2023

| Date | Outfall/Location | Sample Frequency | Sample Type |
|--------------------|---|-------------------------|-----------------|
| 12/21 – 12/22/2023 | Outfall 001 | Quarterly, Routine | Grab, Composite |
| 12/21 – 12/22/2023 | Outfall 002 and Bell Creek Receiving Water (RSW-001, Outfall 002) | Quarterly, Routine | Grab, Composite |
| 12/21 – 12/22/2023 | Outfall 008 | Routine | Grab, Composite |
| 12/21 – 12/22/2023 | Outfall 009 | Routine | Grab, Composite |
| 12/21/2023 | Arroyo Simi Receiving Water (RSW-002, Frontier Park) | Quarterly Surface Water | Grab |
| 12/30 – 12/31/2023 | Outfall 002 | Routine | Grab, Composite |

Notes:

Routine = 1 per discharge event.

All analyses were conducted at analytical laboratories certified by the State Water Resources Control Board (SWRCB) for such analyses (i.e., all have current certification from the Environmental Laboratory Accreditation Program [ELAP] established by the California Environmental Laboratory Improvement Act) or have been approved by the SWRCB Executive Officer in accordance with current U.S. Environmental Protection Agency (EPA) guideline procedures or as specified in the NPDES Permit. Laboratory analytical reports, including validation reports and notes (if validation was performed), are included in Appendix E. Attachment H of the NPDES Permit presents the SWRCB’s minimum levels laboratories are expected to achieve for reporting and determining compliance with NPDES Permit limits. The analytical laboratory achieved these minimum levels in the Fourth Quarter 2023, except when reporting limits were above the minimum levels (generally because of matrix interference). In cases where the NPDES Permit limit was less than the reporting limit and minimum level or there was no minimum level specified in the NPDES Permit, the reporting limit was used to determine compliance.

SUMMARY OF EXCEEDANCES AND/OR NON-COMPLIANCE

As summarized in Appendix D, the Fourth Quarter 2023 exceedances of Daily Maximum benchmarks, Daily Maximum Permit limits, Receiving Water limits, or other non-compliance included:

- Iron, lead, and manganese at Outfall 001;
- Bis(2-Ethylhexyl)phthalate at Outfall 002; and
- Lead, TCDD TEQ, and gross alpha (indeterminant) at Outfall 009.

Outfall 001

Metals: Iron, Lead, and Manganese

On December 22, 2023, a stormwater sample was collected from Outfall 001. Iron was detected at 16 milligrams per liter (mg/L), above the Daily Maximum Benchmark of 0.3 mg/L; lead was detected at 9.4 micrograms per liter ($\mu\text{g/L}$), above the Daily Maximum Benchmark of 5.2 $\mu\text{g/L}$; and manganese was detected at 280 $\mu\text{g/L}$, above the Daily Maximum Benchmark of 50 $\mu\text{g/L}$.

The industrial areas upstream of Outfall 001 are monitored at Outfall 011. No industrial operations were conducted below Outfall 011 or between Outfall 011 and Outfall 001; the property in the watershed between Outfall 011 and Outfall 001 includes little to no industrial materials, equipment, activities, or developed areas; and the primary developed surfaces in that area are dirt roads. Given that Outfall 011 did not produce flow in the Fourth Quarter, Boeing believes the metals concentrations at Outfall 001 during the Fourth Quarter 2023 were attributable to natural soils. This conclusion is consistent with the findings in prior site studies conducted by the Stormwater Expert Panel, which confirmed that these metals are naturally occurring in site soils and other sources unrelated to former industrial operations and was based on the methods for multiple lines of evidence discussed in the Expert Panel Annual Reports (Expert Panel, 2019, 2020, 2022, 2023). The Expert Panel will evaluate these exceedances in their 2024 Annual Report.

Outfall 002

Bis(2-Ethylhexyl)phthalate

On December 31, 2023, a stormwater sample was collected from Outfall 002. Bis(2-Ethylhexyl)phthalate was detected at 12 $\mu\text{g/L}$, above the Daily Maximum Benchmark of 4.0 $\mu\text{g/L}$. The laboratory reanalyzed bis(2-Ethylhexyl)phthalate, and the result was non-detect.

The industrial areas upstream of Outfall 002 are monitored at Outfall 018. No industrial operations were conducted below Outfall 018 or between Outfall 018 and Outfall 002; the property in the watershed between Outfall 018 and Outfall 002 includes little to no industrial materials, equipment, activities, or developed areas; and the primary developed surfaces in that area are dirt roads. Given that Outfall 018 did not produce flow in the Fourth Quarter, Boeing believes the bis(2-Ethylhexyl)phthalate was likely due to field or laboratory contamination as phthalates can be found in plastics and PVCs/vinyl products (EPA, 2000). Starting in the First Quarter 2024, Boeing will collect field blanks for phthalates to identify sources of contamination. The Expert Panel will evaluate this exceedance in their 2024 Annual Report.

Outfall 009Metals: Lead

On December 22, 2023, a stormwater sample was collected from Outfall 009. Lead was detected at 380 µg/L, above the Daily Maximum Permit Limit of 5.2 µg/L.

Boeing is investigating the potential source/cause of the higher lead concentration at Outfall 009. Investigations are currently focused on the Former Shooting Range Remediation Project that started in June 2023. The remedial work is located within the upper most reaches of the Outfall 009 watershed, and is an ongoing effort to remove lead in accordance with an Imminent and Substantial Endangerment Determination and Consent Order issued by the Department of Toxic Substances Control (DTSC, 2022). Before and throughout the course of the remedial work, Boeing has and continues to install more robust BMPs at the Former Shooting Range, in accordance with the Construction SWPPP prepared for this project (Stantec, 2022) and recommendations by the Stormwater Expert Panel incorporated in the approved Remediation Action Workplan. The Stormwater Expert Panel is expected to make additional BMP recommendations for the Former Shooting Range area.

Dioxins (TCDD) Toxic Equivalent (TEQ)

On December 22, 2023, TCDD TEQ was calculated in a stormwater sample collected from Outfall 009 at 6.7-08 µg/L, which is above the Daily Maximum Permit Limit of 2.8E-08 µg/L.

Boeing believes the elevated dioxin concentration at Outfall 009 during the Fourth Quarter 2023 is likely attributable to non-industrial sources, such as soils adjacent to treated wood, utility poles, and/or pavement solid fines. This conclusion is consistent with the findings in prior site studies conducted by the Stormwater Expert Panel, based on methods discussed in the Expert Panel Annual Report, which uses multiple lines of evidence including particulate strengths, fingerprinting methods, spatial patterns, and material inventory to identify likely sources of TCDD TEQ in samples exceeding permit limits (Expert Panel, 2019). The Expert Panel will evaluate this exceedance in their 2024 Annual Report.

Gross Alpha at Outfalls 009

On December 22, 2023, Gross alpha was reported at 17.4 ± 4.80 pCi/L in a stormwater sample collected from Outfall 009, which is indeterminate when compared to the Daily Maximum Permit Limit of 15 pCi/L. According to the NPDES Permit, if gross alpha is greater than 15 picocuries per liter (pCi/L), uranium analysis must be performed (the results must be less than 20 pCi/L), and gross alpha minus total uranium must be less than the Daily Maximum Permit Limit of 15 pCi/L. Uranium analysis was performed, and the result was 1.21 ± 0.54 pCi/L. Gross alpha minus total uranium was calculated to be 16.2 ± 4.83 pCi/L, which is indeterminate when compared to the Daily Maximum Permit Limit of 15 pCi/L. Permit compliance is demonstrated by the average gross alpha results for the calendar year being less than the Daily Maximum Permit Limit of 15 pCi/L. Averaging the First, Third, and Fourth Quarter 2023 data from Outfall 009 (a total of 13 samples) gives an annual average of 0.84 ± 0.77 pCi/L, which is below the Daily Maximum Permit Limit. Thus, gross alpha result at Outfall 009 in 2023 is in compliance with the NPDES permit.

STORMWATER TREATMENT SYSTEM AT OUTFALL 011 ACTIVITIES

The SWTS located near R-1 Pond (SWTS 011) discharges through Outfall 011. In addition to maintenance of electrical systems, painting, and improving safety, the following activities were completed in the Fourth Quarter 2023 as follows:

- Installed the spare mixer motor for the ACTIFLO maturation chamber.
- Repaired leaks on the Victaulic fittings on the sand filters.
- The system was filled with hydrant water and hydrotested. All leaks were repaired, and the system was dosed with potassium permanganate to coat the sand filters in preparation of a possible discharge event.
- Installed a new pump seal on the Filter Feed Pump to address leaks.

SWTS 011 did not operate in the Fourth Quarter of 2023.

STORMWATER TREATMENT SYSTEM AT OUTFALL 018 ACTIVITIES

The SWTS located at Silvernale Pond (SWTS 018) discharges through Outfall 018. In addition to maintenance of electrical systems, painting, and improving safety, the following activities were completed in the Fourth Quarter 2023 as follows:

- Performed annual calibration of aluminum, potassium permanganate, sodium hydroxide, and hydrochloric acid pumps.
- Replaced and calibrated/verified pH and turbidity meters in all systems.
- Decanted water from the Screw Press solids de-watering bins.
- Installed Light-Emitting Diode (LED) lights at the HACH testing lab for safety at night.
- Installed a new Programmable Logic Controller (PLC) card at the ACTIFLO PLC to enable communication with the SWTS 018 PLC.
- Installed a new motor for the air compressor.
- Replaced the polymer pumps for ACTIFLO and the Plate Settler.

SWTS 018 did not operate in the Fourth Quarter of 2023.

STORMWATER POLLUTION PREVENTION PLAN/BEST MANAGEMENT PRACTICE ACTIVITIES

Boeing-Related Activities

Boeing implemented BMP activities in compliance with the Site-wide SWPPP (Haley & Aldrich, 2023) to assist in improving stormwater quality and compliance at the Santa Susana Site. Table II summarizes typical BMP-related activities that occur at outfalls every quarter.

TABLE II: Routine Quarterly Outfall BMP Activities

| BMP Activities | Outfalls | | | | | | | | | | | | |
|--|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| | 001 | 002 | 003 | 004 | 005 | 006 | 007 | 008 | 009 | 010 | 011 | 018 | |
| Conducted erosion and sediment control, and drainage stabilization inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Inspected the flume for sediment/debris. | X | X | X | X | N/A | X | N/A | X | X | X | N/A | X | |
| Inspected the weir for sediment/debris. | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | X | N/A | |
| Cleaned the sample box of sediment and debris, checked for the presence of animals, and performed weed abatement as needed. | X | X | X | X | X | X | X | X | N/A | X | X | X | |
| Checked the flow meter control box for the presence of debris and/or animals. | X | X | X | X | N/A | X | N/A | X | X | X | X | X | |
| Cleaned the outfall area of sediment and debris and performed weed abatement as needed. | X | X | X | X | X | X | X | X | X | X | X | X | |
| Reset the flow meter and replaced the tape monthly (if equipped). | X | X | X | X | N/A | X | N/A | X | X | X | X | X | |
| Conducted maintenance inspections of the stormwater conveyance system. | N/A | N/A | X | X | X | X | X | N/A | N/A | X | X | X | |
| Conducted maintenance inspections of the stormwater retention system. | N/A | N/A | X | X | X | X | X | N/A | N/A | X | X | X | |
| Conducted maintenance inspections of the flow-through structure. | N/A | N/A | X | X | N/A | X | N/A | N/A | N/A | X | X | N/A | |

Notes:

X = BMP activity is applicable to the Outfall and was completed in Fourth Quarter 2023.

N/A = BMP activity is not applicable to the outfall because the outfall does not have a flume, sample box, flow meter, retention system or flow-through structure or is not part of the stormwater conveyance system.

Table III summarizes the additional activities completed during the Fourth Quarter 2023 by outfall or BMP location.

TABLE III: Additional Fourth Quarter 2023 SWPPP/BMP Activities

| Outfall, Watershed, BMP, or Other Location | SWPPP/BMP Activities During Fourth Quarter 2023 |
|--|---|
| 001, 002, 003, 004,006, 008, 009, 010, 011 | <ul style="list-style-type: none"> – Replaced the flume Autosampler and flowmeter bubbler tubing. – Installed new wirings and batteries to solar panels. |
| 001 | <ul style="list-style-type: none"> – Removed sediment from upstream check structures. |
| 002 | <ul style="list-style-type: none"> – Repaired the flume. |
| 004 | <ul style="list-style-type: none"> – Installed a new check valve on the discharge line of Baker Tank. – Replaced discharge manifold pipes for the Baker tanks. |
| 005 | <ul style="list-style-type: none"> – Replaced the filter fabric in the retention basin. |
| 007 | <ul style="list-style-type: none"> – Replaced the filter fabric in the retention basin. – Repaired the high-density Polyethylene (HDPE) line. – Installed entry steps for a safe access. |
| 008 | <ul style="list-style-type: none"> – Removed sediment from upstream of the flume. |
| 009 | <ul style="list-style-type: none"> – Repaired rip rap check structures. |
| 011 | <ul style="list-style-type: none"> – Repaired downstream check structures. |
| 018 | <ul style="list-style-type: none"> – Installed new concrete headwall at the spillway. – Installed gabion baskets filled with rip rap within concrete spillway. – Installed new HDPE discharge line within the spillway, connected to headwall. |
| Perimeter Pond | <ul style="list-style-type: none"> – Removed sediment around pump intake. – Rebuilt dam elevation with sandbags, covered by HDPE, and anchored on both sides with riprap. |
| R-2A Pond | <ul style="list-style-type: none"> – Connected 100-horsepower diesel emergency pump with transducer for pond level height detection. |
| Weather Station | <ul style="list-style-type: none"> – Performed quarterly calibration of Area I and remote rain gauges. – Replaced batteries at Hazardous Waste Yard rain gauge. |

In addition to Site-wide SWPPP-related activities, specific BMP projects included: NASA, DOE, and Expert Panel activities. These are discussed in more detail below.

NASA-Related Activities

During the Fourth Quarter 2023, NASA filed a revised SWPPP for demolition activities at the Coca Area. NASA continued to inspect and maintain demolition BMPs and stormwater activities covered by their Construction SWPPP for the Coca Area, in accordance with the Construction General Permit (CGP; NASA, 2021). Throughout the Fourth Quarter 2023, NASA maintained fiber rolls as perimeter and linear sediment controls in areas where construction activities are occurring.

DOE-Related Activities

DOE reported no BMP-related activities during the Fourth Quarter 2023.

Expert Panel-Related Activities

The BMP activities discussed below were performed, commenced, or completed during the Fourth Quarter 2023 in coordination with the Expert Panel.

TABLE IV: Expert Panel-Related Fourth Quarter 2023 Activities

| Outfall, Watershed, BMP, or Other Location | Activities During Fourth Quarter 2023 |
|---|---|
| Culvert Modifications (CM) | <ul style="list-style-type: none"> – Performed BMP Inspections. – Removed sediment and debris from CMs. – Replaced cracked underdrain piping and sealed cracks in concrete headwalls using non-shrink grout. – Removed and replaced existing filter fabric around weir boards. – Rebuilt check structure and rock apron at CM-4. – Installed HDPE liner at CM-5. – Repaired concrete around the culvert discharge pipes at CM-9 and CM-10. |
| NASA Expendable Launch Vehicle (ELV) Area BMPs | <ul style="list-style-type: none"> – Performed BMP Inspections. |
| Well 13 Road | <ul style="list-style-type: none"> – Performed BMP Inspections. |
| B-1 Area | <ul style="list-style-type: none"> – Performed BMP Inspections. |
| Upper Parking Lot Media Filter | <ul style="list-style-type: none"> – Performed BMP Inspections. |
| Former Building 1436 Detention Bioswales | <ul style="list-style-type: none"> – Performed BMP Inspections. |
| Lower Lot Biofilter (Sedimentation Basin and Biofilter) | <ul style="list-style-type: none"> – Performed BMP Inspections. – Approximately 415,300 gallons of stormwater were pumped from the cistern to the sedimentation basin during the Fourth Quarter 2023. |
| Administration Area Inlet Filters | <ul style="list-style-type: none"> – Performed BMP Inspections. |
| Former Shooting Range | <ul style="list-style-type: none"> – Performed BMP Inspections, upgrades, and repairs in accordance with the SWPPP for Former Shooting Range Remedial Action (Stantec, 2022). |
| Northern Drainage BMPs | <ul style="list-style-type: none"> – Performed BMP Inspections. – Repaired downstream check structures. |
| NASA and Boeing BMP Monitoring-Related Activities | <ul style="list-style-type: none"> – In addition to activities performed in coordination with the Expert Panel described above, BMP performance monitoring samples were collected during the Fourth Quarter 2024 and will be reported by the Expert Panel in their 2024 Annual Report. |

Other BMP Activities

BMP observations and maintenance inspections were conducted in conformance with the Site-wide SWPPP (Haley & Aldrich, 2023) at and around the former Alfa and Bravo test stands and former Advanced Propulsion Test Facility.

REASONABLE POTENTIAL ANALYSIS

Stormwater discharges from the Santa Susana Site occurred at Outfalls 001, 002, 008, and 009 during the Fourth Quarter 2023. Analytical results from this quarter were added to the Reasonable Potential Analysis (RPA) dataset (Appendix F). The analytical results for the Fourth Quarter 2023 did not trigger a reasonable potential for any other constituent not already regulated under the current NPDES Permit.

CONCLUSIONS

The site experienced high-intensity rain events in the Fourth Quarter 2023 (Appendix A). In a quarter with high-intensity events, many of the detected exceedances are likely attributable to background or non-industrial sources, consistent with the research and conclusions of the Stormwater Expert Panel, and one detection is likely attributable to field or laboratory contamination. The Expert Panel is reviewing the data collected and will make BMP and monitoring recommendations that will be communicated in the Expert Panel's 2024 Annual Report.

Boeing is committed to fulfilling the requirements of the NPDES Permit and continues to implement, maintain, and monitor wide ranging control practices intended to improve water quality at stormwater discharge locations at the Santa Susana Site through methods designed to preserve the natural conditions in the watershed to the maximum extent feasible by implementing distributed, sustainable erosion control/restoration measures.

FACILITY CONTACT

If there are any questions regarding this report or its enclosures, you may contact Mr. Jeffrey Wokurka of Boeing at (818) 466-8800.

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the 15th of February 2024 at The Boeing Company, Seal Beach, California Site.

Sincerely,

Kim O'Rourke

Kim O'Rourke

Global Remediation and Due Diligence Program Manager

Global Enterprise Sustainability - Environment

Enclosures:

References

Figure 1 - Site Map with Stormwater Collection and Conveyance System and Site Features

Figure 2 - Arroyo Simi Receiving Water (RSW-002, Frontier Park) Sampling Location and Upstream Monitoring Point

Appendix A - Fourth Quarter 2023 Rainfall Data Summary

Appendix B - Fourth Quarter 2023 Waste Shipment Summary Tables

Appendix C - Fourth Quarter 2023 Discharge Monitoring Data Summary Tables

Appendix D - Fourth Quarter 2023 NPDES Permit Limit Exceedances and/or Non-Compliance

Appendix E - Fourth Quarter 2023 Analytical Laboratory Reports, Chain of Custody Forms, and Validation Reports

Appendix F - Fourth Quarter 2023 Reasonable Potential Analysis Tables

Appendix G - Fourth Quarter 2023 Receiving Water Surveys

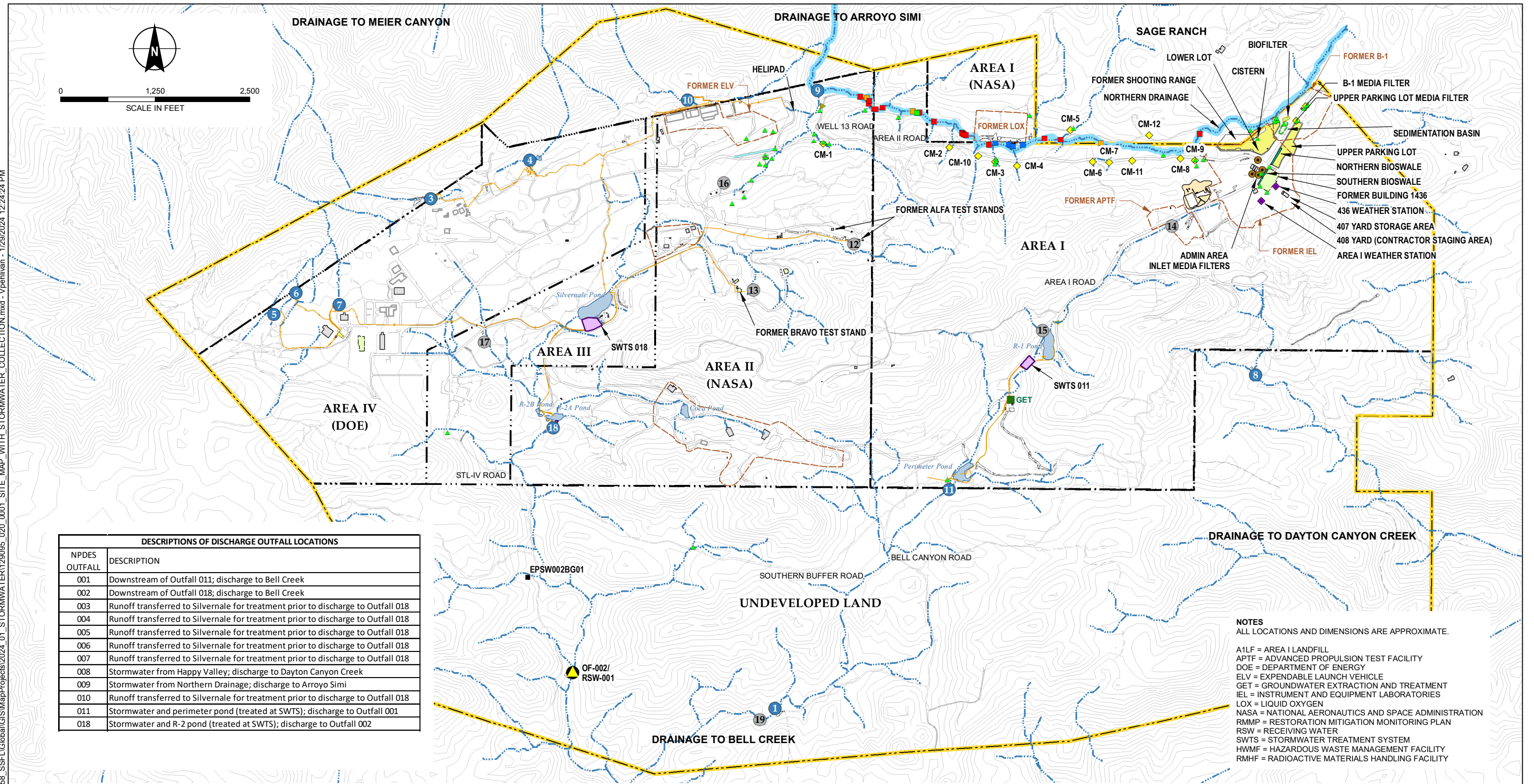
c: Los Angeles Regional Water Quality Control Board; Attn: Mr. Duong H. Trinh
Los Angeles Regional Water Quality Control Board; Attn: Ms. Bronwyn Kelly

REFERENCES

1. California Regional Water Quality Control Board, Los Angeles Region, 2015. Waste Discharge Requirements for The Boeing Company, Santa Susana Field Laboratory (Order No. R4-2015-0033, NPDES No. CA0001309). 12 February.
2. Department of Toxic Substances Control (DTSC), 2022. Former Rocketdyne-Atomics International Rifle and Pistol Club Shooting Range and Overshot Area Imminent and Substantial Endangerment Determination and Consent Order, Simi Valley, Ventura Country, CA (Docket No. HAS-FY21/22-131). 25 March.
3. Geosyntec and the Expert Panel, 2019. Santa Susana Field Laboratory Site-wide Stormwater Annual Report, 2018/19 Reporting Year, Ventura County, California (NPDES No. CA0001309, CI No.6027). October.
4. Geosyntec and the Expert Panel, 2020. Santa Susana Field Laboratory Site-wide Stormwater Annual Report, 2019/20 Reporting Year, Ventura County, California (NPDES No. CA0001309, CI No.6027). October.
5. Geosyntec and the Expert Panel, 2022. Santa Susana Field Laboratory Site-wide Stormwater Annual Report, 2021/22 Reporting Year, Ventura County, California (NPDES No. CA0001309, CI No.6027). October.
6. Geosyntec and the Expert Panel, 2023. Santa Susana Field Laboratory Site-wide Stormwater Annual Report, 2022/23 Reporting Year, Ventura County, California (NPDES No. CA0001309, CI No.6027). October.
7. Haley & Aldrich, Inc., 2023. Stormwater Pollution and Prevention Plan (Version 10 for Compliance with 2015 NPDES Permit). 15 December.
8. National Aeronautics and Space Administration, 2021 with revision 2023. Stormwater Pollution and Prevention Plan for the Pacific Region MATOC FY21 Facilities Reduction Program at the NASA Santa Susana Field Laboratory (Phase 5 - Bravo Test Area Demolition), Ventura County, California. July.
9. Stantec Consulting Services, Inc., 2022. Stormwater Pollution Prevention Plan for Former Shooting Range Remedial Action, Santa Susana Field Laboratory, Ventura County, California. August.
10. U.S. Environmental Protection Agency (EPA), 2000. Bis(2-ethylhexyl) phthalate (DEHP) Summary Sheet. January.

FIGURES

GIS: \\haleyaldrich.com\share\sdg_common\40458_SSF\Global\GIS\MapProjects\2024_01_STORMWATER\129095_020_0001_SITE_MAP_WITH_STORMWATER_COLLECTION.mxd - Vpethivan - 1/29/2024 12:24:24 PM



| DESCRIPTIONS OF DISCHARGE OUTFALL LOCATIONS | |
|---|--|
| NPDES OUTFALL | DESCRIPTION |
| 001 | Downstream of Outfall 011; discharge to Bell Creek |
| 002 | Downstream of Outfall 018; discharge to Bell Creek |
| 003 | Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018 |
| 004 | Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018 |
| 005 | Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018 |
| 006 | Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018 |
| 007 | Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018 |
| 008 | Stormwater from Happy Valley; discharge to Dayton Canyon Creek |
| 009 | Stormwater from Northern Drainage; discharge to Arroyo Simi |
| 010 | Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018 |
| 011 | Stormwater and perimeter pond (treated at SWTS); discharge to Outfall 001 |
| 018 | Stormwater and R-2 pond (treated at SWTS); discharge to Outfall 002 |

NOTES
 ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

A1LF = AREA I LANDFILL
 APTF = ADVANCED PROPULSION TEST FACILITY
 DOE = DEPARTMENT OF ENERGY
 ELV = EXPENDABLE LAUNCH VEHICLE
 GET = GROUNDWATER EXTRACTION AND TREATMENT
 IEL = INSTRUMENT AND EQUIPMENT LABORATORIES
 LOX = LIQUID OXYGEN
 NASA = NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
 RMMP = RESTORATION MITIGATION MONITORING PLAN
 RSW = RECEIVING WATER
 SWTS = STORMWATER TREATMENT SYSTEM
 HWMF = HAZARDOUS WASTE MANAGEMENT FACILITY
 RMHF = RADIOACTIVE MATERIALS HANDLING FACILITY

LEGEND

| | | | | | |
|--|--|---|---------------------------|----------------------|---------------------------------------|
| ① ACTIVE NPDES OUTFALL LOCATION | ● ADMINISTRATION AREA DRAIN INLETS | ■ STORMWATER TREATMENT SYSTEM | --- DRAINAGE | ■ VEHICLE PARKING | ■ EXISTING BUILDING/STRUCTURE |
| ①7 FORMER NPDES OUTFALL LOCATION | ▲ BMP MONITORING LOCATION | ■ FORMER STUDY AREA | --- NORTHERN DRAINAGE | ■ BIOFILTER | ■ FORMER BUILDING FOOTPRINT |
| ▲ BELL CREEK RECEIVING WATER (RSW-001) SAMPLING LOCATION AND OUTFALL 001 | ■ PREVIOUS BMP PERFORMANCE MONITORING LOCATION | ■ RMPM LOCATION | --- ASPHALT SWALE | ■ SEDIMENT BASIN | ■ CONCRETE SLAB IN PLACE |
| ● SLOPE DRAIN DISCHARGE POINT TO NORTHERN DRAINAGE | ◆ WEATHER STATION | ■ CHECK STRUCTURE - MOSTLY NATURAL SANDSTONE, SOME RIP RAP | --- PAVED ROAD | ■ STORAGE TANK | ■ LANDFILL AREA |
| ◆ CULVERT MODIFICATION | ■ GET SYSTEM | ■ CHECK STRUCTURE - RIP RAP | --- DIRT ROAD | ■ BIOSWALE | ■ SANTA SUSANA SITE PROPERTY BOUNDARY |
| | | ■ CHECK STRUCTURE - VEGETATED RIP RAP | --- 25' ELEVATION CONTOUR | ■ GRAVEL | ■ ADMINISTRATIVE AREA BOUNDARY |
| | | ■ SLOPE DRAIN WITH UNDERLYING CHECK STRUCTURE AND ENERGY DISSIPATING GRAVEL AT INFLUENT END | | ■ SURFACE WATER POND | |

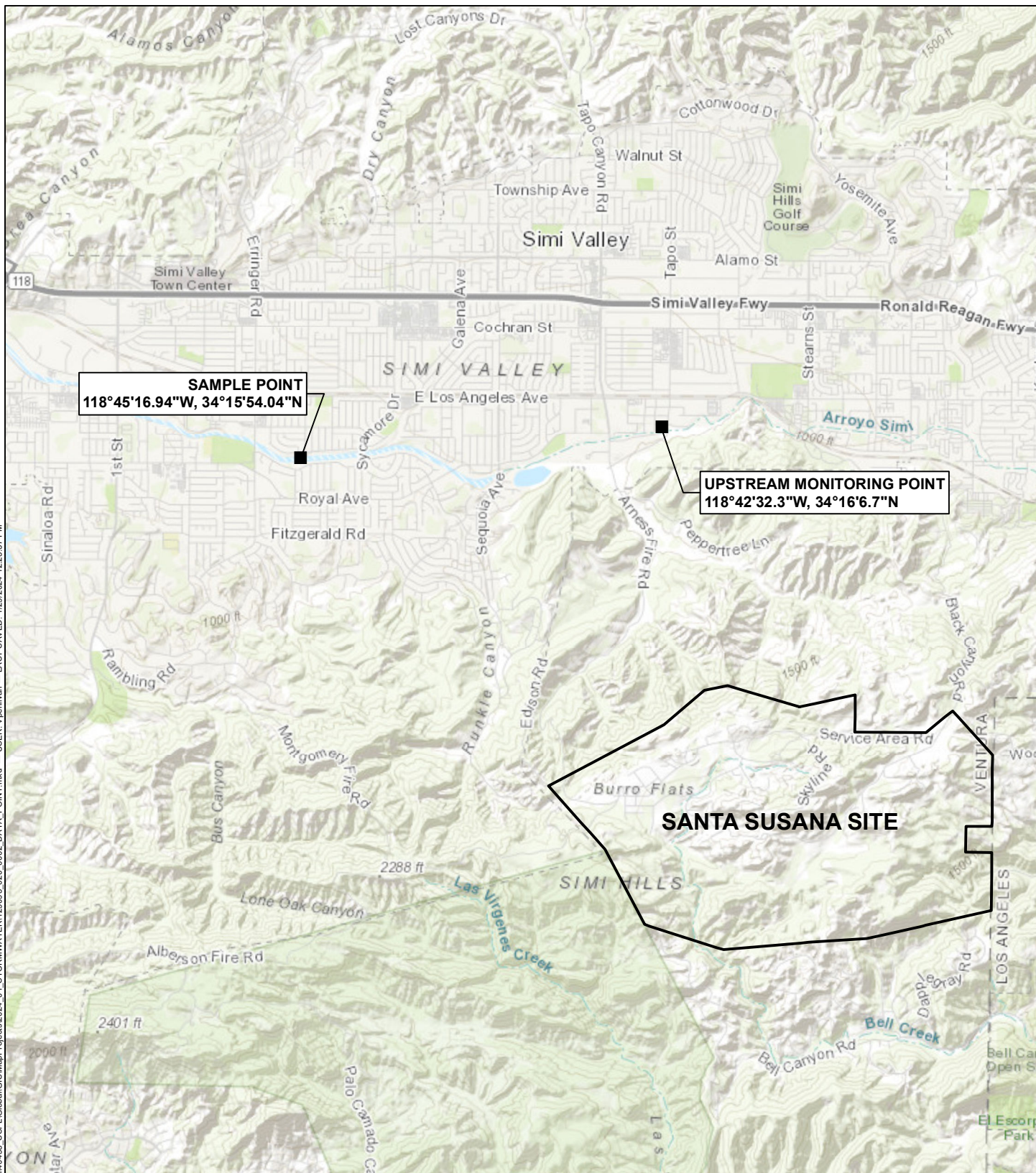
HALEY ALDRICH

NPDES PERMIT COMPLIANCE FOURTH QUARTER 2023
 DISCHARGE MONITORING REPORT
 THE BOEING COMPANY
 VENTURA COUNTY, CALIFORNIA

SITE MAP WITH STORMWATER COLLECTION AND CONVEYANCE SYSTEM AND SITE FEATURES

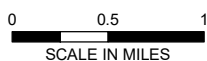
FEBRUARY 2024 FIGURE 1

GIS FILE PATH: \\haleyaldrich.com\share\esdgs_sfl\Global\GIS\MapProjects\2024_01_STORMWATER\129095_020_0002_DATA_POINT.mxd — USER: Vpethivan — LAST SAVED: 1/29/2024 12:25:37 PM



NOTES

- 1. THE SAMPLE POINT IS FOR QUARTERLY WATER QUALITY AND ANNUAL SEDIMENT SAMPLING.
- 2. THE UPSTREAM MONITORING POINT LOCATION WAS CHOSEN BASED ON IT BEING UPSTREAM OF ALL POSSIBLE DISCHARGE FROM THE SANTA SUSANA SITE.



**HALEY
ALDRICH**

NPDES PERMIT COMPLIANCE FOURTH QUARTER 2023
DISCHARGE MONITORING REPORT
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

**ARROYO SIMI RECEIVING WATER
(RSW-002, FRONTIER PARK)
SAMPLING LOCATION AND UPSTREAM
MONITORING POINT**

FEBRUARY 2024

FIGURE 2

APPENDIX A

Fourth Quarter 2023 Rainfall Data Summary

**TABLE A
DAILY RAINFALL SUMMARY**

Station: AREA 1
Parameter: Inches of Rain
Month/Year: October 2023

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

HOUR OF THE DAY, PACIFIC STANDARD TIME

| | HR-BEG | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | |
|-----|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | HR-END | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | Total |
| | 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| D | 8 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A | 9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Y | 10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| O | 12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| F | 13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T | 15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| H | 16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| E | 17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| M | 19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| O | 20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| N | 21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T | 22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| H | 23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| | 26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | d | d | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Monthly Total 0.01

Flags: d = Off-line part of hour. Invalid hour due to semiannual audit (October 30). For the off-line event, the rain gauge at Sage Ranch did not record rainfall on October 30 during hours 0500 through 0700 PST.

**TABLE A
DAILY RAINFALL SUMMARY**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

**Station: AREA 1
Parameter: Inches of Rain
Month/Year: November 2023**

HOUR OF THE DAY, PACIFIC STANDARD TIME

| | HR-BEG | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | |
|---|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | HR-END | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | |
| | DAY | | | | | | | | | | | | | | | | | | | | | | | | | | Total |
| | 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| D | 8 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A | 9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Y | 10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| O | 12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| F | 13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T | 15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.07 | 0.03 | 0.01 | 0.01 | 0.01 | 0.05 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 |
| H | 16 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 |
| E | 17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 18 | 0.00 | 0.01 | 0.06 | 0.22 | 0.02 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.06 | 0.00 | 0.00 | 0.00 | 0.40 |
| M | 19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| O | 20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| N | 21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T | 22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| H | 23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Monthly Total 0.69

**TABLE A
DAILY RAINFALL SUMMARY**

Station: AREA 1
Parameter: Inches of Rain
Month/Year: December 2023

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

HOUR OF THE DAY, PACIFIC STANDARD TIME

| | HR-BEG | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | |
|---|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | HR-END | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | |
| | DAY | | | | | | | | | | | | | | | | | | | | | | | | | | Total |
| | 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| D | 8 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A | 9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Y | 10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| O | 12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| F | 13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T | 15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| H | 16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| E | 17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| M | 19 | 0.00 | 0.03 | 0.04 | 0.01 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.04 | 0.07 | 0.16 | 0.02 | 0.04 | 0.04 | 0.65 |
| O | 20 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.01 | 0.01 | 0.07 | 0.02 | 0.20 | 0.16 | 0.01 | 0.00 | 0.06 | 0.04 | 0.32 | 0.07 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 1.04 |
| N | 21 | 0.01 | 0.11 | 0.03 | 0.20 | 0.30 | 0.57 | 0.20 | 0.01 | 0.00 | 0.00 | 0.45 | 0.49 | 0.11 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.02 | 0.01 | 0.01 | 0.11 | 2.82 | |
| T | 22 | 0.05 | 0.14 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | |
| H | 23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | |
| | 29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.37 | 0.09 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.58 | |
| | 31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

Monthly Total 5.33

APPENDIX B

Fourth Quarter 2023 Waste Shipment Summary Tables

**TABLE B
WASTE SHIPMENT SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| TYPE OF WASTE | MATRIX | QUANTITY | UNITS | TRANSPORTER 1 | TRANSPORTER 2 | DESTINATION |
|--|--------|----------|-------|---|---------------|--|
| RQ3082 Hazardous Waste, Liquid, N.O.S. | Liquid | 5,440 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Environmental Services, Inc. 2247 South Highway 71 Kimball, NE 69145 |
| NA3082 Hazardous Waste, Liquid, N.O.S. | Liquid | 6,300 | G | Remedial Transportation Services, Inc. | n/a | US Ecology Vernon 5375 South Boyle Avenue Los Angeles, CA 90058 |
| Non RCRA Hazardous Waste, Solid, (Potassium Permanganate Residue) | Solid | 111 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029 |
| Non RCRA Hazardous Waste, Liquids | Liquid | 282 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| NA3082 Hazardous Waste, Liquid, N.O.S. | Liquid | 854 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| NA3077, Hazardous Waste Solid, N.O.S. (Cadmium, Lead), 9, PG III | Solid | 180 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| UN1268, Waste Petroleum Distillates, N.O.S. (Diesel Oil), 3, PG III | Liquid | 1,287 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| UN3264, Waste Corrosive Liquid, Acidic, Inorganic, N.O.S.(Hydrochloric Acid, Nitric Acid), 8, PG III | Liquid | 63 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| UN3262, Corrosive Solid, Basic, Inorganic, N.O.S. (Sodium Hydroxide, Potassium Hydroxide), 8, PG III | Solid | 68 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| UN1791, Waste Hypochlorite Solutions, (Sodium Hypochlorite), 8, PG III | Liquid | 1,044 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| NA3082 Hazardous Waste, Liquid, N.O.S. (Trichloroethylene), 9, PG III | Liquid | 183 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| NA3077, Hazardous Waste Solid, N.O.S. (Debris/Oil) | Solid | 81 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| NA3077, Hazardous Waste Solid, N.O.S. (Debris, Sulfuric Acid) | Solid | 128 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| NA3077, Hazardous Waste Solid, N.O.S. (Empty Containers) | Solid | 25 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |

**TABLE B
WASTE SHIPMENT SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| TYPE OF WASTE | MATRIX | QUANTITY | UNITS | TRANSPORTER 1 | TRANSPORTER 2 | DESTINATION |
|--|--------|----------|-------|---|-----------------------|--|
| NA3077, Hazardous Waste Solid, N.O.S. (Empty Containers) | Solid | 144 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| Non RCRA Hazardous Waste, Solids, (Utility Poles, Pentachlorophenol) | Solid | 20 | Y | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Buttonwillow LLC 2500 West Lokern Road Buttonwillow, CA 93206 |
| NA3077, Hazardous Waste Solid, N.O.S. | Solid | 2,705 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Environmental Services, Inc. 2247 South Highway 71 Kimball, NE 69145 |
| UN1956, Waste Compressed Gas, N.O.S., (Calibration Gas Cylinders), 2.2 | Solid | 21 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Deer Park LLC 2027 Independence Parkway South La Porte, TX 77571 |
| NA3077, Hazardous Waste, Solid, N.O.S. (Methyl Ethyl Ketone), 9, PG III | Solid | 40 | Y | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Deer Park LLC 2027 Independence Parkway South La Porte, TX 77571 |
| UN1044, Fire Extinguishers, 2.2 | Solid | 4 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Deer Park LLC 2027 Independence Parkway South La Porte, TX 77571 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Metals), 9, PG III | Solid | 1,602 | Y | Mashburn Transportation | n/a | Clean Harbors Buttonwillow LLC 2500 West Lokern Road Buttonwillow, CA 93206 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Metals), 9, PG III | Solid | 234 | Y | Mashburn Transportation | MTS | Clean Harbors Buttonwillow LLC 2500 West Lokern Road Buttonwillow, CA 93206 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 18 | Y | MCY Transport Corp | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 18 | Y | Chicos Trucking, Inc. | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 18 | Y | Jan Ascencion | Chicos Trucking, Inc. | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 36 | Y | Figueroa Trucking | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 18 | Y | Figueroa's Corp | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 18 | Y | Coyote's Transport | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |

**TABLE B
WASTE SHIPMENT SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| TYPE OF WASTE | MATRIX | QUANTITY | UNITS | TRANSPORTER 1 | TRANSPORTER 2 | DESTINATION |
|--|--------|----------|-------|---|---------------|--|
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 18 | Y | C&D Trucking LLC | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 18 | Y | JMF Trucking | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 18 | Y | Javier Transport | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 18 | Y | Bereno Trucking, Inc. | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 18 | Y | B&D Construcion | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 36 | Y | Three J Transport, Inc. | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 36 | Y | Franklin P. Trucking, LLC | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| RQ, UN3077, Hazardous Waste, Solid, N.O.S. (Soil with Lead), 9, PG III | Solid | 72 | Y | Rust & Sons Trucking | n/a | US Ecology Nevada, Inc. Hwy 95, 11 miles S. of Bewatty Beatty, NV 89003 |
| NA3077, Hazardous Waste, Solid, N.O.S., 9, PG III | Solid | 120 | Y | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors El Dorado LLC 309 American Circle El Dorado, AR 71730 |
| UN3077, Waste Environmentally Hazardous Substances, Solid, N.O.S. (Chlordane), 9, PG III | Solid | 124 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Environmental Services, Inc. 2247 South Highway 71 Kimball, NE 69145 |
| UN3090, Lithium Metal Batteries, 9, PG III | Solid | 16 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Battery Solutions LLC - Mesa 618 E. Auto Center Drive Mesa, AZ 85204 |
| Non-Hazardous Soil | Solid | 54 | Y | P. Valdez | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 72 | Y | Strong Tower Transport | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 18 | Y | Coyote's Transport | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |

**TABLE B
WASTE SHIPMENT SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| TYPE OF WASTE | MATRIX | QUANTITY | UNITS | TRANSPORTER 1 | TRANSPORTER 2 | DESTINATION |
|--------------------|--------|----------|-------|-----------------------------|---------------|--|
| Non-Hazardous Soil | Solid | 18 | Y | MCV Transport Corp | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 54 | Y | Salmex Transporters | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 54 | Y | F & H Trucking | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 162 | Y | CCR Transport | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 162 | Y | L & P Trucking | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 180 | Y | Rust & Sons Trucking | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 36 | Y | Acosta Transportation Corp. | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 18 | Y | Munoz Trucking | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 18 | Y | Figueroa Corp. | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 18 | Y | Three J Transport, Inc. | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 18 | Y | Javier Transport | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 18 | Y | Figueroa Trucking | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 18 | Y | Beneno Trucking | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 18 | Y | C&D Trucking LLC | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |

**TABLE B
WASTE SHIPMENT SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| TYPE OF WASTE | MATRIX | QUANTITY | UNITS | TRANSPORTER 1 | TRANSPORTER 2 | DESTINATION |
|---|--------|----------|-------|---|---------------|--|
| Non-Hazardous Soil | Solid | 234 | Y | J&M Trucking | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 432 | Y | Rico Trucking | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 288 | Y | Rochas General Co. | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non-Hazardous Soil | Solid | 216 | Y | Iribarren Transport | n/a | Waste Management Simi Valley Landfill 2801 N Madera Road Simi Valley, CA 93065 |
| Non Hazardous, Non D.O.T. Regulated | Solid | 40 | Y | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Waste Management Antelope Valley Landfill 1200 West City Ranch Road Palmdale, CA 93551 |
| Non Hazardous, Non D.O.T. Regulated (Water) | Liquid | 13,370 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029 |
| Non Hazardous, Non D.O.T. Regulated Material (Debris) | Solid | 5,338 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| Universal Waste (Electronic Devices) | Solid | 224 | P | Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061 | n/a | Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744 |
| Non Hazardous Waste | Liquid | 2,500 | G | Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058 | n/a | Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058 |
| NA3082, Hazardous Waste Liquid, N.O.S. (Purge Water), 9, PG III | Liquid | 550 | G | Patriot Environmental Services | n/a | US Ecology Beatty US Hwy 95, 11 Miles South of Beatty Beatty, NV 89003 |
| NA3077, Hazardous Waste Solid, N.O.S. (F002 Rock Drilling Solids), 9, PG III | Solid | 300 | P | Patriot Environmental Services | n/a | US Ecology Beatty US Hwy 95, 11 Miles South of Beatty Beatty, NV 89003 |
| RQ3077, Hazardous Waste Solid, N.O.S. (F002 Rock Drilling Solids), 9, PG III ERG #171 | Solid | 40 | Y | Patriot Environmental Services | n/a | US Ecology Beatty US Hwy 95, 11 Miles South of Beatty Beatty, NV 89003 |
| NA3082, Hazardous Waste Liquid, N.O.S. (Water), 9, PG III | Liquid | 1,115 | G | Patriot Environmental Services | n/a | US Ecology Vernon 5375 South Boyle Avenue Los Angeles, CA 90058 |
| NA3077, Hazardous Waste Solid, N.O.S. (GAC), 9, PG III | Solid | 2,000 | P | Patriot Environmental Services | n/a | US Ecology Beatty US Hwy 95, 11 Miles South of Beatty Beatty, NV 89003 |

**TABLE B
WASTE SHIPMENT SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| TYPE OF WASTE | MATRIX | QUANTITY | UNITS | TRANSPORTER 1 | TRANSPORTER 2 | DESTINATION |
|--|--------|----------|-------|--|---------------|--|
| Non-Hazardous Waste Liquid (Groundwater) | Liquid | 34,850 | G | American Integrated Services, Inc. | n/a | Crosby & Overton, Inc. 1630 W. 17th Street Long Beach, CA 90813 |
| Non Hazardous Waste | Liquid | 2,500 | G | Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058 | n/a | Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058 |

Notes:
D.O.T. = Department of Transportation
n/a = Not Applicable
G = Gallons
P = Pounds
RCRA = Resource Conservation and Recovery Act
Y = Yards

APPENDIX C

Fourth Quarter 2023 Discharge Monitoring Data Summary Tables

APPENDIX C

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Reporting Summary Notes

Outfall 001 - Discharge Monitoring Data Summary Table
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Outfall 008 - Discharge Monitoring Mass Summary Table

Outfall 009 - Discharge Monitoring Data Summary Table
Outfall 009 - Discharge Monitoring Mass Summary Table

Arroyo Simi - Discharge Monitoring Data Summary Table

**REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

Not all of the following notes, abbreviations, symbols, or acronyms occur on every table:

1. 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) toxic equivalents (TEQs) for the purpose of determining permit compliance are the sum of the products of the detected dioxin congener concentration multiplied by that congener's toxicity equivalency factor (TEF) and bioaccumulation equivalency factor (BEF). The resulting compliance TCDD TEQ does not include those congener concentrations that are reported as detected but not quantified (DNQ), as specified on page 26 of the NPDES permit (Water Board, 2015).
2. Temperature, total residual chlorine (TRC), dissolved oxygen (DO), and pH are measured in the field and are not validated.
3. pH and temperature are identified on the table as daily maximum discharge limits. The NPDES permit limit has an instantaneous minimum (6.5) and maximum (8.5) for pH and an instantaneous maximum of 86°F for temperature.
4. Exceedances are defined on page 6 of the NPDES permit as constituents in excess of daily maximum benchmark limits, daily maximum permit limits, or receiving water limits. Analytical concentrations or calculations to determine compliance to the NPDES permit are compared to the same number of significant figures as the daily maximum benchmark limits, daily maximum permit limits, or receiving water limits.
5. Priority pollutants sampled once every five years, at Arroyo Simi Receiving Water sampling location (RSW-002, Frontier Park) were analyzed during the First Quarter 2023.
6. Dissolved metals are filtered by the laboratory and reported as "Metal, dissolved". Total metals are not filtered by the laboratory and reported as "Metal".
7. Abbreviations, symbols, and acronyms:

| | |
|--------------|---|
| -92.9 +/-200 | A negative radiochemical analytical result indicates the count rate of the sample was less than the background condition. Radiological results are presented as activity plus or minus total uncertainty. |
| % | Percent. |
| \$ | Reported result or other information was incorrectly reported by the laboratory; result was corrected by the data validator. |
| -- | Based on validation of the data, a qualifier was not required. |
| - | No NPDES permit limit established for daily maximum or receiving water limit. |
| <(value) | Analyte not detected at a concentration greater than or equal to the detection limit (DL), method detection limit (MDL), or laboratory reporting limit (RL); see laboratory report for specific detail. |
| >(value) | Greater than most probable number. |
| * | Result not validated. |
| ** | Flow for each outfall is calculated over the 24-hour period when the outfall autosampler is operating to collect the composite sample. See definition of "Daily Discharge" on page A-2 of attachment A of the NPDES permit. |
| *1 | Improper preservation of sample. |
| *2 | The inductively coupled plasma (ICP)/matrix spike (MS) parts per billion (ppb) check standard was recovered above the control limit; therefore, the constituent detected was qualified as estimated (J). |

**REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| | |
|-------------|--|
| *3 | Initial and or continuing calibration recoveries were outside acceptable control limits. |
| *5 | Blank spike/blank spike duplicate relative percent difference was outside the control limit. |
| *10 | Value was estimated detect or estimated non-detect (J, UJ) due to deficiencies in quantitation of the constituent including constituents reported by the laboratory as estimated maximum possible concentration (EMPC) values. |
| *11 | No calibration was performed for this compound; result is reported as a tentatively identified compound (TIC). |
| *III | Unusual problems found with the data that have been described in the validation report. |
| ANR | Analysis not required; e.g., constituent or outfall was not required by the NPDES permit to be sampled and analyzed over the reporting period (annual, semi- annual, etc.). |
| Avg | Average. |
| B | Laboratory method blank contamination. |
| BA | Relative percent difference out of control. |
| BEF | Bioaccumulation equivalency factor. |
| BU | Analyzed out of holding time. |
| BV | Sample received after holding time expired. |
| C | Calibration percent relative standard deviation (%RSD) or percent difference (%D) were noncompliant. |
| CaCO3 | Calcium carbonate |
| Chromium VI | Hexavalent chromium |
| Comp | Composite sample type. |
| C5 | Calibration verification percent recovery (%R) was outside method control limits. |
| CEs/100 ml | Cell equivalents per 100 milliliters. |
| D | The analysis with this flag should not be used because another more technically sound analysis is available. |
| %D | Percent difference between the initial and continuing calibration relative response factors. |
| Deg C | Degrees Celsius. |
| Deg F | Degrees Fahrenheit. |
| DL | Detection limit. |
| DNQ | Detected but not quantified (constituent value greater than or equal to the laboratory method detection limit and less than the laboratory reporting limit). |
| E | E in validation qualifier indicates that duplicates show poor agreement. |
| EB | Equipment blank. |
| EMPC | Estimated maximum possible concentration. |
| F | The analyte was detected in an associated field blank (FB) or equipment blank (EB) as well as in the sample. |
| FB | Field blank. |
| F1 | Matrix spike (MS) and/or matrix spike duplicate (MSD) recovery is outside acceptance limits. |
| ft/sec | Feet per second. |
| G | Gallons. |

**REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| | |
|------------|---|
| gpd | Gallons per day. |
| H | Holding time was exceeded. |
| Hardness | Equivalent of calcium carbonate (CaCO ₃). |
| Hp | Hepta. |
| Hx | Hexa. |
| ICP | Interference check solution results were unsatisfactory. |
| J | Estimated value. |
| J+ | The result is an estimated quantity, but the result may be biased high. |
| J- | The result is an estimated quantity, but the result may be biased low. |
| J, DX | Estimated value, value < lowest standard method quantitation limit (MQL), but > than method detection limit (MDL). |
| K | The sample dilution's set-up did not meet the oxygen depletion criteria of at least 2 milligrams per liter (mg/L); therefore, the reported result is an estimated value only. |
| L | Laboratory control sample percent recovery (%R) was outside control limits. |
| L1 | Laboratory control standard (LCS)/laboratory control standard duplicate (LCSD), relative percent difference (RPD) was outside the control limit. |
| LBS/DAY | Pounds per day. |
| LCS | Laboratory control standard. |
| LCSD | Laboratory control standard duplicate. |
| LQ | Laboratory control standard (LCS)/ laboratory control standard duplicate (LCSD) recovery above method control limits. |
| Max | Maximum. |
| MB | Analyte present in the method blank. |
| MDA/MDC | Minimum detectable activity/minimum detectable concentration. |
| MDL | Method detection limit. |
| Meas | Measure sample type. |
| MFL | Million fibers per liter. |
| MGD | Million gallons per day. |
| MHA | Due to high level of analyte in the sample, the matrix spike (MS)/matrix spike duplicate (MSD) calculation does not provide useful spike recovery information. |
| mg/L | Milligrams per liter. |
| mg/kg | Milligrams per kilogram. |
| ml/L | Milliliters per liter |
| ml/L/hr | Milliliters per liter per hour. |
| MPN/100 mL | Most probable number per 100 milliliters. |
| MQL | Method quantitation limit. |
| MS | Matrix spike. |
| MSD | Matrix spike duplicate. |
| mS/cm | MilliSiemens per centimeter |
| NA | Not applicable; no NPDES permit limit established for the constituent and/or outfall or analyte not required per receiving water monitoring requirements. |
| ND | Analyte not detected. |

**REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| | |
|----------------|---|
| NJ | The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample. |
| NM | Not measured or determined or minimum detectable activities (MDAs) are not calculated as there is no statistical method for combining MDAs. |
| NPDES | National Pollutant Discharge Elimination System. |
| NR | Not reported by laboratory by the deadline of this report. |
| NTU | Nephelometric turbidity unit. |
| OCDD | Octachlorodibenzo-p-dioxin. |
| OCDF | Octachlorodibenzofuran. |
| P | Pounds. |
| ppb | Parts per billion. |
| pCi/L | PicoCuries per liter. |
| Pe | Penta. |
| q | The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio; the measured ion ratio does not meet qualitative identification criteria and indicates a possible interference. |
| Q | Matrix spike (MS) recovery outside of control limits. |
| Q1 | Matrix spike (MS)/matrix spike duplicate (MSD) relative percent difference (RPD) was outside the control limit. |
| R | As a validation qualifier, results are rejected; the presence or absence of analyte cannot be verified. |
| (R) | Percent recovery (%R) for calibration not within control limits. |
| RL | Laboratory reporting limit. |
| RL-1 | Reporting limit raised due to sample matrix effects. |
| RPD | Relative percent difference. |
| %R | Percent recovery. |
| %RSD | Percent relative standard deviation. |
| % Normal/Alive | Percent normal and alive. |
| % Survival | Percent survival. |
| S | Surrogate recovery was outside control limits. |
| s.u. | Standard unit. |
| TCDD | 2,3,7,8-tetrachlorodibenzo-p-dioxin. |
| TCDF | 2,3,7,8-tetrachlorodibenzo-p-furan. |
| TEQ | Toxic equivalent. |
| TIC | Tentatively identified compound |
| TIE | Toxicity identification evaluation |
| TOC | Total organic carbon |
| T | Presumed contamination, as indicated by a detect in the trip blank. |
| U | Result not detected. |
| µg/L | Micrograms per liter. |
| µg/g | Micrograms per gram. |
| µg/kg | Micrograms per kilogram. |
| µmhos/cm | Micromhos per centimeter. |

**REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| | |
|----------|---|
| UJ | Result not detected at the estimated reporting limit. |
| WHO TEF | World Health Organization toxic equivalency factor. |
| w/out | Without. |
| ^ | Analysis not completed due to hold time exceedance or insufficient sample volume. |
| # | Per Order No. R4-2015-0033, page 16, Footnote 1. The effluent limitations for total suspended solids and settleable solids are not applicable for discharges during wet weather. During wet weather flow, a discharge event is greater than 0.1 inch of rainfall in a 24-hour period. No more than one sample per week need be obtained during extended periods of rainfall or the discharge of collected stormwater. A storm event must be preceded by at least 72 hours of dry weather. |
| (1) | Based on the NPDES permit, table E-3a footnote 2, receiving water samples for pH, hardness, and priority pollutants must be collected on the same day as effluent samples. |
| (2) | Additional sample, not required by the NPDES permit. |
| (4.0)3.1 | Represents (dry weather limit) wet weather limit. |
| (3) | Secondary maximum contaminant level. |
| (4) | The drinking water maximum contaminant level of 3.00E-05 µg/L is for the dioxin congener 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). TCDD Toxic Equivalent (TEQ) without detected but not quantified (DNQ) values is the sum of the products of the detected dioxin congener concentration multiplied by that congener's toxic Equivalency factor (TEF) and bioaccumulation equivalency factor (BEF). There are 17 dioxin congeners. |
| (a) | Based on Order No. R4-2015-0033, page 17, footnote 7, sampling event is a dry discharge and the NPDES Permit Limit for cadmium is 4.0 ug/L and 3.93 lbs./day at OF001, 002, 011, 018 and 0.24 lbs./day at OF008. |
| (b) | Based on Order No. R4-2015-0033, page 17, footnote 7, sampling event is a wet discharge and the NPDES Permit Limit for cadmium is 3.1 ug/L and 4.91 lbs./day at OF001, 002, 011, 018 and 3.05 lbs./day at OF008. |
| (c) | Based on Order No. R4-2015-0033, page 16, footnote 1, sampled during wet weather flow. The effluent limitations for total suspended solids and/or settleable solids are not applicable for discharges during wet weather. |
| (d) | Based on Order No. R4-2015-0033, page 16, footnote 1, sampled during dry weather flow. The effluent limitations for total suspended solids and/or settleable solids are applicable for discharges during dry weather. |
| (e) | Based on Order No. R4-2015-0033, page 17, footnote 8, sampling event is a dry discharge and the NPDES Permit Limit for selenium is 5 ug/L and 4.91 lbs./day. |
| (f) | Based on Order No. R4-2015-0033, page 17, footnote 8, sampling event is a wet discharge and the NPDES Permit Limit for selenium is 8.2 ug/L and 8.06 lbs./day. |
| (g) | The composite sample was collected as a grab sample from the stream due to insufficient flow. |
| (h) | Total Ammonia is reported in wet weight units' milligrams per kilogram (mg/kg). |
| (i) | Total organic carbon (TOC) is reported in dry weight units. Permit asks for TOC units in % dry weight, but data is provided in dry unit milligrams per kilogram (mg/kg). |
| (j) | Analyte does not have a receiving water limit for Bell Creek Receiving Water (RSW-001, OF002). |
| (k) | Field parameter noted on field notes rather than COC. |

**REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| | |
|-----|--|
| (l) | When field staff arrived onsite to collect the composite sample, they discovered that the autosampler had malfunctioned and had not collected "sips". Field staff repaired the autosampler, reset it, determined it was functioning properly, then returned the next day to collect the composite sample. |
| (m) | The composite sample was collected as a grab sample from the sample box due to insufficient flow. |
| (n) | The grab sample was collected at the first opportunity given the short duration and low flow at this Outfall. |
| (o) | Unsafe conditions all day prevented access to the Outfall. |
| (p) | Various annual constituents were analyzed by laboratory due to field and laboratory error. |
| (q) | 2-chlorovinyl ether and endrin aldehyde were submitted to an additional laboratory to achieve minimum levels. |
| (r) | The sampling frequency of this constituent is increased from once per year to once per discharge until four consecutive sample results demonstrate compliance per the NPDES permit. The corresponding dissolved metal also increased in sampling frequency to once per discharge. |
| (s) | Analyte does not have a daily maximum permit limit for OF002. |
| (t) | Reanalysis |
| (u) | The grab sample was delayed by an hour due to field error. |
| (v) | Flowmeter data not available due to automated recorder malfunction. Permit limit maximum was used as the flow value. Visual observations during sampling confirmed that flow was well below permit maximum. |
| (w) | The grab sample was delayed 72 hours due to weather station communication error. |
| (x) | Sample collected in addition to NPDES permit required sampling frequency. |
| (y) | As specified on page E-14, footnote 7 of the NPDES permit, "Radium-226 and radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be $\leq 5\text{pCi/L}$. If gross alpha is $<5\text{ pCi/L}$, one can assume Ra-226 activity = gross alpha activity for purposes of meeting the 5 pCi/L limit". As the gross alpha result was less than 5pCi/L for this sample, gross alpha was substituted in the calculation. |
| (z) | The chronic toxicity test method used for this sample was Ceriodaphnia Dubia Survival and Reproduction Bioassay. |

OUTFALL 001
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| | | | | 12/21/2023 13:15 - 12/22/2023 09:35 | | |
|--|---------------------------|-------------------------------|----------------------------|-------------------------------------|---------------------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Flow** | MGD | 117.83 | 1/Discharge | Meas | 0.00002 | * |
| CONVENTIONAL POLLUTANTS | | | | | | |
| Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C) | mg/L | 30 | 1/Discharge | Composite | 3.8 | * |
| Oil & Grease | mg/L | 15 | 1/Discharge | Grab | ND < 0.50 | U* |
| pH (Field) | s.u. | 6.5-8.5 | 1/Discharge | Grab | 7.69 | * |
| Total Suspended Solids [#] | mg/L | 45 | 1/Discharge | Composite | 270 ^(c) | * |
| PRIORITY POLLUTANTS | | | | | | |
| 1,1-Dichloroethene | µg/L | 6.0 | 1/Discharge | Grab | ND < 0.33 | U* |
| 1,2-Dichloroethane | µg/L | 0.5 | 1/Discharge | Grab | ND < 0.15 | U* |
| 2,4,6-Trichlorophenol | µg/L | 13 | 1/Discharge | Composite | ND < 0.13 | U* |
| 2,4-Dinitrotoluene | µg/L | 18 | 1/Discharge | Composite | ND < 0.11 | U* |
| alpha-BHC | µg/L | 0.03 | 1/Discharge | Composite | ND < 0.0012 | U* |
| Antimony | µg/L | 6.0 | 1/Year | ANR | ANR | ANR |
| Arsenic | µg/L | 10.0 | 1/Year | ANR | ANR | ANR |
| Beryllium | µg/L | 4.0 | 1/Year | ANR | ANR | ANR |
| Bis (2-Ethylhexyl) Phthalate | µg/L | 4.0 | 1/Discharge | Composite | ND < 3.5 | U* |
| Cadmium | µg/L | (4.0) 3.1 | 1/Discharge | Composite | 0.36 ^(b) | J (DNQ*) |
| Chromium VI (Hexavalent) | µg/L | 16 | 1/Year | ANR | ANR | ANR |
| Copper | µg/L | 14 | 1/Discharge | Composite | 10 | * |
| Cyanide | µg/L | 8.5 | 1/Discharge | Composite | ND < 2.5 | U* |
| Lead | µg/L | 5.2 | 1/Discharge | Composite | 9.4 | -- |
| Mercury | µg/L | 0.1 | 1/Discharge | Composite | ND < 0.12 | U* |
| Nickel | µg/L | 94 | 1/Year | ANR | ANR | ANR |
| N-Nitrosodimethylamine | µg/L | 16 | 1/Discharge | Composite | ND < 0.18 | U* |
| Pentachlorophenol | µg/L | 16.5 | 1/Discharge | Composite | ND < 0.81 | U* |
| Selenium | µg/L | (5) 8.2 | 1/Discharge | Composite | 0.96 ^(f) | J (DNQ*) |
| Silver | µg/L | 4.1 | 1/Year | ANR | ANR | ANR |
| Thallium | µg/L | 2.0 | 1/Year | ANR | ANR | ANR |
| Trichloroethene | µg/L | 5.0 | 1/Discharge | Grab | ND < 0.17 | U* |
| Zinc | µg/L | 119 | 1/Discharge | Composite | 56 | * |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Ammonia - N | mg/L | 10.1 | 1/Discharge | Composite | 0.032 | J (DNQ*) |
| Barium | mg/L | 1.0 | 1/Year | ANR | ANR | ANR |
| Chloride | mg/L | 150 | 1/Discharge | Composite | 2.8 | * |
| Chlorine, Total Residual (Field) | mg/L | 0.1 | 1/Year | ANR | ANR | ANR |
| Chronic Toxicity | Pass or Fail and % Effect | Pass or % Effect <50 | 1st & 2nd rain event/Year | ANR | ANR | ANR |
| Detergents (as MBAS) | mg/L | 0.5 | 1/Discharge | Composite | ND < 0.050 | U* |
| Fluoride | mg/L | 1.6 | 1/Year | ANR | ANR | ANR |
| Iron | mg/L | 0.3 | 1/Discharge ⁽ⁱ⁾ | Composite | 16 | -- |
| Manganese | µg/L | 50 | 1/Year ^(k) | Composite | 280 | J+ (Q) |
| Nitrate - N | mg/L | 8 | 1/Discharge | Composite | 0.33 | * |
| Nitrate + Nitrite as Nitrogen (N) | mg/L | 8 | 1/Discharge | Composite | 0.38 | * |
| Nitrite - N | mg/L | 1 | 1/Discharge | Composite | 0.050 | J (DNQ*) |
| Perchlorate | µg/L | 6.0 | 1/Discharge | Composite | ND < 0.91 | U* |
| Settleable Solids [#] | ml/L | 0.3 | 1/Discharge | Grab | 0.10 ^(c) | * |
| Sulfate | mg/L | 300 | 1/Discharge | Composite | 10 | * |
| Temperature (Field) | Deg F | 86 | 1/Discharge | Grab | 56 | * |
| Total Dissolved Solids | mg/L | 950 | 1/Discharge | Composite | 190 | * |
| REMAINING PRIORITY POLLUTANTS | | | | | | |
| 1,1,1-Trichloroethane | µg/L | - | 1/Quarter | Grab | ND < 0.25 | U* |
| 1,1,2,2-Tetrachloroethane | µg/L | - | 1/Quarter | Grab | ND < 0.20 | U* |
| 1,1,2-Trichloroethane | µg/L | - | 1/Quarter | Grab | ND < 0.17 | U* |
| 1,1-Dichloroethane | µg/L | - | 1/Quarter | Grab | ND < 0.39 | U* |
| 1,2,4-Trichlorobenzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Dichlorobenzene (VOC) | µg/L | - | 1/Quarter | Grab | ND < 0.16 | U* |
| 1,2-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | ANR | ANR | ANR |

OUTFALL 001
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| | | | | 12/21/2023 13:15 - 12/22/2023 09:35 | | |
|----------------------------------|-------|-------------------------------|------------------|-------------------------------------|-----------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| 1,2-Dichloropropane | µg/L | - | 1/Quarter | Grab | ND < 0.17 | U* |
| 1,2-Diphenylhydrazine/Azobenzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,3-Dichlorobenzene (VOC) | µg/L | - | 1/Quarter | Grab | ND < 0.16 | U* |
| 1,3-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,4-Dichlorobenzene (VOC) | µg/L | - | 1/Quarter | Grab | ND < 0.11 | U* |
| 1,4-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dichlorophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dimethylphenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dinitrophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2,6-Dinitrotoluene | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2-Chloroethyl vinyl ether | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2-Chloronaphthalene | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2-Chlorophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2-Methyl-4,6-dinitrophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2-Nitrophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 3,3'-Dichlorobenzidine | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4,4'-DDD | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4,4'-DDE | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4,4'-DDT | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4-Bromophenyl phenyl ether | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4-Chloro-3-methylphenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4-Chlorophenyl phenyl ether | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4-Nitrophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| Acenaphthene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Acenaphthylene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Acrolein | µg/L | - | 1/Quarter | Grab | ND < 4.6 | U* |
| Acrylonitrile | µg/L | - | 1/Quarter | Grab | ND < 1.4 | U* |
| Aldrin | µg/L | - | 1/Year | ANR | ANR | ANR |
| alpha-Endosulfan | µg/L | - | 1/Year | ANR | ANR | ANR |
| Anthracene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1016 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1221 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1232 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1242 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1248 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1254 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1260 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzene | µg/L | - | 1/Quarter | Grab | ND < 0.28 | U* |
| Benzidine | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(a)anthracene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(a)pyrene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(b)fluoranthene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(g,h,i)perylene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(k)fluoranthene | µg/L | - | 1/Year | ANR | ANR | ANR |
| beta-BHC | µg/L | - | 1/Year | ANR | ANR | ANR |
| beta-Endosulfan | µg/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Chloroethoxy) Methane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Chloroethyl) Ether | µg/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Chloroisopropyl) Ether | µg/L | - | 1/Year | ANR | ANR | ANR |
| Bromoform | µg/L | - | 1/Quarter | Grab | ND < 0.25 | U* |
| Bromomethane (Methyl Bromide) | µg/L | - | 1/Quarter | Grab | ND < 0.22 | U* |
| Butyl benzylphthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Carbon tetrachloride | µg/L | - | 1/Quarter | Grab | ND < 0.28 | U* |
| Chlordane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chlorobenzene | µg/L | - | 1/Quarter | Grab | ND < 0.19 | U* |
| Chlorodibromomethane | µg/L | - | 1/Quarter | Grab | ND < 0.15 | U* |
| Chloroethane | µg/L | - | 1/Quarter | Grab | ND < 0.29 | U* |

OUTFALL 001
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| | | | | 12/21/2023 13:15 - 12/22/2023 09:35 | | |
|--|----------|-------------------------------|-----------------------|-------------------------------------|-----------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Chloroform | µg/L | - | 1/Quarter | Grab | ND < 0.19 | U* |
| Chloromethane (Methyl Chloride) | µg/L | - | 1/Quarter | Grab | ND < 0.30 | U* |
| Chromium | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chromium III (Trivalent) | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chrysene | µg/L | - | 1/Year | ANR | ANR | ANR |
| cis-1,3-Dichloropropene | µg/L | - | 1/Quarter | Grab | ND < 0.30 | U* |
| delta-BHC | µg/L | - | 1/Year | ANR | ANR | ANR |
| Dibenzo(a,h)anthracene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Dichlorobromomethane | µg/L | - | 1/Quarter | Grab | ND < 0.19 | U* |
| Dieldrin | µg/L | - | 1/Year | ANR | ANR | ANR |
| Diethyl phthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Dimethyl phthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Di-n-butyl phthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Di-n-octyl phthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Endosulfan sulfate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Endrin | µg/L | - | 1/Year | ANR | ANR | ANR |
| Endrin aldehyde | µg/L | - | 1/Year | ANR | ANR | ANR |
| Ethylbenzene | µg/L | - | 1/Quarter | Grab | ND < 0.25 | U* |
| Fluoranthene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Fluorene | µg/L | - | 1/Year | ANR | ANR | ANR |
| gamma-BHC (Lindane) | µg/L | - | 1/Year | ANR | ANR | ANR |
| Heptachlor | µg/L | - | 1/Year | ANR | ANR | ANR |
| Heptachlor epoxide | µg/L | - | 1/Year | ANR | ANR | ANR |
| Hexachlorobenzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Hexachlorobutadiene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Hexachlorocyclopentadiene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Hexachloroethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Indeno(1,2,3-cd)pyrene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Isophorone | µg/L | - | 1/Year | ANR | ANR | ANR |
| m,p-Xylenes | µg/L | - | 1/Year ^(x) | Grab | ND < 0.17 | U* |
| Methylene chloride | µg/L | - | 1/Quarter | Grab | ND < 0.57 | U* |
| Naphthalene (VOC) | µg/L | - | 1/Year ^(x) | Grab | ND < 0.33 | U* |
| Naphthalene (SVOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| Nitrobenzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| N-Nitroso-di-n-propylamine | µg/L | - | 1/Year | ANR | ANR | ANR |
| N-Nitrosodiphenylamine | µg/L | - | 1/Year | ANR | ANR | ANR |
| o-Xylene | µg/L | - | 1/Year ^(x) | Grab | ND < 0.15 | U* |
| Phenanthrene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Phenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| Pyrene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Tetrachloroethene | µg/L | - | 1/Quarter | Grab | ND < 0.21 | U* |
| Toluene | µg/L | - | 1/Quarter | Grab | ND < 0.23 | U* |
| Toxaphene | µg/L | - | 1/Year | ANR | ANR | ANR |
| trans-1,2-Dichloroethene | µg/L | - | 1/Quarter | Grab | ND < 0.24 | U* |
| trans-1,3-Dichloropropene | µg/L | - | 1/Quarter | Grab | ND < 0.18 | U* |
| Trichlorofluoromethane | µg/L | - | 1/Year ^(x) | Grab | ND < 0.29 | U* |
| Vinyl chloride | µg/L | - | 1/Quarter | Grab | ND < 0.47 | U* |
| Xylenes (Total) | µg/L | - | 1/Year ^(x) | Grab | ND < 0.17 | U* |
| EFFLUENT MONITORING (NO LIMITATIONS) POLLUTANTS | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | µg/L | - | 1/Quarter | Grab | ND < 0.33 | U* |
| 1,2-Dichloro-1,1,2-trifluoroethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,4-Dioxane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Boron | mg/L | - | 1/Year | ANR | ANR | ANR |
| cis-1,2-Dichloroethene | µg/L | - | 1/Year ^(x) | Grab | ND < 0.21 | U* |
| Cobalt | µg/L | - | 1/Year | ANR | ANR | ANR |
| Conductivity | µmhos/cm | - | 1/Discharge | Grab | 120 | * |
| Cyclohexane | µg/L | - | 1/Year | ANR | ANR | ANR |

OUTFALL 001
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| 12/21/2023 13:15 - 12/22/2023 09:35 | | | | | | |
|--|-----------|-------------------------------|-------------------------------------|-------------|-----------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Diesel Range Organics (DRO C13-C28) | mg/L | - | 1/Year | ANR | ANR | ANR |
| Dissolved Oxygen (Field) | mg/L | - | 1/Discharge | Grab | 11.2 | * |
| E. Coli | mpn/100mL | - | 1/Year | ANR | ANR | ANR |
| Gasoline Range Organics (GRO C4-C12) | mg/L | - | 1/Year | ANR | ANR | ANR |
| Hardness (as CaCO3) | mg/L | - | 1/Year | ANR | ANR | ANR |
| Monomethyl hydrazine | µg/L | - | 1/Year | ANR | ANR | ANR |
| Total Organic Carbon | mg/L | - | 1/Year | ANR | ANR | ANR |
| Turbidity | NTU | - | 1/Discharge | Composite | 650 | * |
| Vanadium | µg/L | - | 1/Year | ANR | ANR | ANR |
| ADDITIONAL POLLUTANTS⁽²⁾ | | | | | | |
| Antimony, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Arsenic, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Barium, dissolved | mg/L | - | Additional/Year | ANR | ANR | ANR |
| Beryllium, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Boron, dissolved | mg/L | - | Additional/Year | ANR | ANR | ANR |
| Cadmium, dissolved | µg/L | - | Additional/Discharge | Composite | ND < 0.13 | U* |
| Chromium, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Cobalt, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Copper, dissolved | µg/L | - | Additional/Discharge | Composite | 2.1 | * |
| Hardness, dissolved (as CaCO3) | mg/L | - | Additional/Year | ANR | ANR | ANR |
| Human Bacteroides | CEs/100mL | - | Additional/Year | ANR | ANR | ANR |
| Iron, dissolved | mg/L | - | Additional/Discharge ⁽¹⁾ | Composite | 0.68 | * |
| Lead, dissolved | µg/L | - | Additional/Discharge | Composite | 0.36 | J (DNQ*) |
| Manganese, dissolved | µg/L | - | Additional/Year ^(x) | Composite | 10 | * |
| Mercury, dissolved | µg/L | - | Additional/Discharge | Composite | ND < 0.12 | U* |
| Nickel, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Selenium, dissolved | µg/L | - | Additional/Discharge | Composite | ND < 0.52 | U* |
| Silver, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Thallium, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Vanadium, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Zinc, dissolved | µg/L | - | Additional/Discharge | Composite | 3.2 | J (DNQ*) |

OUTFALL 001
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| 12/22/2023 09:35 (Composite) | | | | | | | | |
|------------------------------|------------------|--------------|--|-------|---------|------------|----------------------------------|------------------------------------|
| ANALYTE | SAMPLE FREQUENCY | 1998 WHO TEF | BEF GREAT LAKES WATER QUALITY INITIATIVE | UNITS | LAB MDL | LAB RESULT | LABORATORY/ VALIDATION QUALIFIER | TCDD EQUIVALENT (w/out DNQ Values) |
| 1,2,3,4,6,7,8-HpCDD | 1/Discharge | 0.01 | 0.05 | µg/L | 5.7E-07 | 3.5E-05 | U (B) | ND |
| 1,2,3,4,6,7,8-HpCDF | 1/Discharge | 0.01 | 0.01 | µg/L | 6.1E-07 | 3.4E-05 | U (B) | ND |
| 1,2,3,4,7,8,9-HpCDF | 1/Discharge | 0.01 | 0.4 | µg/L | 6.0E-07 | 7.4E-06 | J (DNQ) | ND |
| 1,2,3,4,7,8-HxCDD | 1/Discharge | 0.1 | 0.3 | µg/L | 3.5E-07 | 1.9E-06 | J (DNQ) | ND |
| 1,2,3,4,7,8-HxCDF | 1/Discharge | 0.1 | 0.08 | µg/L | 6.5E-07 | 2.9E-05 | J (DNQ) | ND |
| 1,2,3,6,7,8-HxCDD | 1/Discharge | 0.1 | 0.1 | µg/L | 3.6E-07 | 1.5E-06 | J (DNQ) | ND |
| 1,2,3,6,7,8-HxCDF | 1/Discharge | 0.1 | 0.2 | µg/L | 5.5E-07 | 7.9E-06 | J (DNQ) | ND |
| 1,2,3,7,8,9-HxCDD | 1/Discharge | 0.1 | 0.1 | µg/L | 3.3E-07 | 9.9E-07 | UJ (*III) | ND |
| 1,2,3,7,8,9-HxCDF | 1/Discharge | 0.1 | 0.6 | µg/L | 4.8E-07 | 9.0E-07 | UJ (*III) | ND |
| 1,2,3,7,8-PeCDD | 1/Discharge | 1.0 | 0.9 | µg/L | 3.1E-07 | ND | U | ND |
| 1,2,3,7,8-PeCDF | 1/Discharge | 0.05 | 0.2 | µg/L | 3.3E-07 | 4.0E-06 | J (DNQ) | ND |
| 2,3,4,6,7,8-HxCDF | 1/Discharge | 0.1 | 0.7 | µg/L | 4.8E-07 | 2.7E-06 | J (DNQ) | ND |
| 2,3,4,7,8-PeCDF | 1/Discharge | 0.5 | 1.6 | µg/L | 3.6E-07 | 3.3E-06 | J (DNQ) | ND |
| 2,3,7,8-TCDD | 1/Discharge | 1.0 | 1.0 | µg/L | 9.8E-07 | ND | U | ND |
| 2,3,7,8-TCDF | 1/Discharge | 0.1 | 0.8 | µg/L | 5.9E-07 | ND | U | ND |
| OCDD | 1/Discharge | 0.0001 | 0.01 | µg/L | 1.2E-06 | 3.0E-04 | -- | 3.0E-10 |
| OCDF | 1/Discharge | 0.0001 | 0.02 | µg/L | 6.0E-07 | 4.5E-05 | U (B) | ND |

| | |
|--|---------|
| TCDD TEQ w/out DNQ Values ⁽⁴⁾ | 3.0E-10 |
|--|---------|

TCDD TEQ (PRIORITY POLLUTANTS) BENCHMARK LIMIT = 2.8E-08

OUTFALL 001
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | SAMPLE FREQUENCY | 12/22/2023 09:35 (Composite) | | |
|---|-------|-------------------------------|------------------|------------------------------|-------|----------------------------------|
| | | | | RESULT | MDA | LABORATORY/ VALIDATION QUALIFIER |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Gross Alpha | pCi/L | 15 | 1/Discharge | 11.6 ± 3.17 | 2.41 | * |
| Gross Beta | pCi/L | 50 | 1/Discharge | 10.3 ± 1.64 | 1.06 | * |
| Combined Radium-226 & Radium-228 | pCi/L | 5.0 | 1/Discharge | 0.517 ± 1.048 | NM | -- |
| Strontium-90 | pCi/L | 8.0 | 1/Discharge | 0.376 ± 0.451 | 0.743 | U* |
| Tritium | pCi/L | 20,000 | 1/Discharge | 3.15 ± 172 | 313 | U* |
| ADDITIONAL POLLUTANTS | | | | | | |
| Cesium-137 | pCi/L | 200 | 1/Discharge | -1.36 ± 7.85 | 9.22 | U* |
| Uranium | pCi/L | 20 | 1/Discharge | 0.824 ± 0.435 | 0.382 | * |
| ADDITIONAL POLLUTANTS WITHOUT LIMITS | | | | | | |
| Potassium-40 | pCi/L | - | 1/Discharge | 14.3 ± 95.7 | 101 | U* |

OUTFALL 001
DISCHARGE MONITORING MASS SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | SAMPLE FREQUENCY | 12/21/2023 13:15 - 12/22/2023 09:35 | | |
|--|---------|-------------------------------|----------------------------|-------------------------------------|---------------------------|----------------------------------|
| | | | | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Flow** | MGD | 117.83 | 1/Discharge | Meas | 0.00002 | * |
| CONVENTIONAL POLLUTANTS | | | | | | |
| Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C) | LBS/DAY | 29,481 | 1/Discharge | Composite | 0.00063 | * |
| Oil & Grease | LBS/DAY | 14,741 | 1/Discharge | Grab | ND | U* |
| Total Suspended Solids [#] | LBS/DAY | 44,222 | 1/Discharge | Composite | 0.045 ^(c) | * |
| PRIORITY POLLUTANTS | | | | | | |
| 1,1-Dichloroethene | LBS/DAY | 5.9 | 1/Discharge | Grab | ND | U* |
| 1,2-Dichloroethane | LBS/DAY | 0.49 | 1/Discharge | Grab | ND | U* |
| 2,4,6-Trichlorophenol | LBS/DAY | 12.8 | 1/Discharge | Composite | ND | U* |
| 2,4-Dinitrotoluene | LBS/DAY | 17.7 | 1/Discharge | Composite | ND | U* |
| alpha-BHC | LBS/DAY | 0.03 | 1/Discharge | Composite | ND | U* |
| Antimony | LBS/DAY | 5.9 | 1/Year | ANR | ANR | ANR |
| Arsenic | LBS/DAY | 9.83 | 1/Year | ANR | ANR | ANR |
| Beryllium | LBS/DAY | 3.93 | 1/Year | ANR | ANR | ANR |
| Bis (2-Ethylhexyl) Phthalate | LBS/DAY | 3.93 | 1/Discharge | Composite | ND | U* |
| Cadmium | LBS/DAY | (3.93) 3.05 | 1/Discharge | Composite | 0.00000006 ^(b) | J (DNQ*) |
| Chromium VI (Hexavalent) | LBS/DAY | 15.72 | 1/Year | ANR | ANR | ANR |
| Copper | LBS/DAY | 13.76 | 1/Discharge | Composite | 0.000002 | * |
| Cyanide | LBS/DAY | 8.35 | 1/Discharge | Composite | ND | U* |
| Lead | LBS/DAY | 5.11 | 1/Discharge | Composite | 0.0000016 | -- |
| Mercury | LBS/DAY | 0.1 | 1/Discharge | Composite | ND | U* |
| Nickel | LBS/DAY | 92.4 | 1/Year | ANR | ANR | ANR |
| N-Nitrosodimethylamine | LBS/DAY | 15.72 | 1/Discharge | Composite | ND | U* |
| Pentachlorophenol | LBS/DAY | 16.22 | 1/Discharge | Composite | ND | U* |
| Selenium | LBS/DAY | (8.06) 4.91 | 1/Discharge | Composite | 0.00000016 ^(f) | J (DNQ*) |
| Silver | LBS/DAY | 4.03 | 1/Year | ANR | ANR | ANR |
| TCDD TEQ NoDNQ ⁽⁴⁾ | LBS/DAY | 2.75E-08 | 1/Discharge | Composite | 5.0E-17 | * |
| Thallium | LBS/DAY | 1.97 | 1/Year | ANR | ANR | ANR |
| Trichloroethene | LBS/DAY | 4.91 | 1/Discharge | Grab | ND | U* |
| Zinc | LBS/DAY | 117 | 1/Discharge | Composite | 0.0000093 | * |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Ammonia - N | LBS/DAY | 9,925.3 | 1/Discharge | Composite | 0.0000053 | J (DNQ*) |
| Barium | LBS/DAY | 983 | 1/Year | ANR | ANR | ANR |
| Chloride | LBS/DAY | 147,405 | 1/Discharge | Composite | 0.00047 | * |
| Chlorine, Total Residual (Field) | LBS/DAY | 98.3 | 1/Year | ANR | ANR | ANR |
| Detergents (as MBAS) | LBS/DAY | 491.4 | 1/Discharge | Composite | ND | U* |
| Fluoride | LBS/DAY | 1,572.3 | 1/Year | ANR | ANR | ANR |
| Iron | LBS/DAY | 295 | 1/Discharge ^(r) | Composite | 0.0027 | -- |
| Manganese | LBS/DAY | 49.1 | 1/Year ^(x) | Composite | 0.000047 | J+ (DNQ) |
| Nitrate - N | LBS/DAY | 7,862 | 1/Discharge | Composite | 0.000055 | * |
| Nitrate + Nitrite as Nitrogen (N) | LBS/DAY | 7,862 | 1/Discharge | Composite | 0.000063 | * |
| Nitrite - N | LBS/DAY | 983 | 1/Discharge | Composite | 0.000008 | J (DNQ*) |
| Perchlorate | LBS/DAY | 5.9 | 1/Discharge | Composite | ND | U* |
| Sulfate | LBS/DAY | 294,810 | 1/Discharge | Composite | 0.002 | * |
| Total Dissolved Solids | LBS/DAY | 933,567 | 1/Discharge | Composite | 0.032 | * |

See reporting summary notes for abbreviations, definitions, and other explanations for the data presented.

**OUTFALL 002
DISCHARGE MONITORING DATA SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | RECEIVING WATER LIMIT | 12/21/2023 07:15 - 12/22/2023 07:45 | | LABORATORY / VALIDATION QUALIFIER |
|--|------------------------------|--|------------------------------|---|-----------------------------|-------------------------------------|---------------------|--|
| | | | | | | SAMPLE TYPE | RESULT | |
| Flow** | MGD | 117.83 | 1/Discharge | 1/Quarter | - | Meas | 1.1015 | * |
| CONVENTIONAL POLLUTANTS | | | | | | | | |
| Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C) | mg/L | 30 | 1/Discharge | NA | - | Composite | 3.2 | * |
| Oil & Grease | mg/L | 15 | 1/Discharge | NA | - | Grab | ND < 0.49 | U* |
| pH (Field) | s.u. | 6.5-8.5 | 1/Discharge | 1/Quarter | 6.5-8.5 | Grab | 7.2 | * |
| Total Suspended Solids [#] | mg/L | 45 | 1/Discharge | 1/Year | - | Composite | 58 ^(c) | * |
| PRIORITY POLLUTANTS | | | | | | | | |
| 1,1-Dichloroethene | µg/L | 6.0 | 1/Discharge | 1/5 Years | - | Grab | ND < 0.33 | U* |
| 1,2-Dichloroethane | µg/L | 0.5 | 1/Discharge | 1/5 Years | - | Grab | ND < 0.15 | U* |
| 2,4,6-Trichlorophenol | µg/L | 13 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.17 | U* |
| 2,4-Dinitrotoluene | µg/L | 18 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.14 | U* |
| alpha-BHC | µg/L | 0.03 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.0012 | U* |
| Antimony | µg/L | 6.0 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Arsenic | µg/L | 10.0 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Beryllium | µg/L | 4.0 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Bis (2-Ethylhexyl) Phthalate | µg/L | 4.0 | 1/Discharge | 1/5 Years | - | Composite | ND < 4.4 | U* |
| Bis (2-Ethylhexyl) Phthalate ^(f) | µg/L | 4.0 | 1/Discharge | 1/5 Years | - | ANR | ANR | ANR |
| Cadmium | µg/L | (4.0) 3.1 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.13 | U* |
| Chromium VI (Hexavalent) | µg/L | 16 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Copper | µg/L | 14 | 1/Discharge | 1/5 Years | - | Composite | 3.0 | * |
| Cyanide | µg/L | 8.5 | 1/Discharge | 1/5 Years | - | Composite | ND < 2.5 | U* |
| Lead | µg/L | 5.2 | 1/Discharge | 1/5 Years | - | Composite | 1.8 | * |
| Mercury | µg/L | 0.1 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.12 | U* |
| Nickel | µg/L | 94 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| N-Nitrosodimethylamine | µg/L | 16 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.23 | U* |
| Pentachlorophenol | µg/L | 16.5 | 1/Discharge | 1/5 Years | - | Composite | ND < 1.0 | U* |
| Selenium | µg/L | (5) 8.2 | 1/Discharge | 1/5 Years | - | Composite | 0.53 ^(f) | J (DNQ*) |
| Silver | µg/L | 4.1 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Thallium | µg/L | 2.0 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Trichloroethene | µg/L | 5.0 | 1/Discharge | 1/5 Years | - | Grab | ND < 0.17 | U* |
| Zinc | µg/L | 119 | 1/Discharge | 1/5 Years | - | Composite | 13 | J (DNQ*) |
| NON-CONVENTIONAL POLLUTANTS | | | | | | | | |
| Ammonia - N | mg/L | 10.1 | 1/Discharge | NA | - | Composite | ND < 0.029 | U* |
| Barium | mg/L | 1.0 | 1/Year | NA | - | ANR | ANR | ANR |
| Chloride | mg/L | 150 | 1/Discharge | NA | - | Composite | 31 | * |
| Chlorine, Total Residual (Field) | mg/L | 0.1 | 1/Year | NA | - | ANR | ANR | ANR |
| Chronic Toxicity | Pass or Fail and % Effect | Pass or % Effect <50 | 1st & 2nd rain event/Year | NA | - | ANR | ANR | ANR |
| Detergents (as MBAS) | mg/L | 0.5 | 1/Discharge | NA | - | Composite | 0.073 | J (DNQ*) |
| Fluoride | mg/L | 1.6 | 1/Year | NA | - | ANR | ANR | ANR |
| Iron | mg/L | 0.3 | 1/Year | NA | - | ANR | ANR | ANR |
| Manganese | µg/L | 50 | 1/Year | NA | - | ANR | ANR | ANR |
| Nitrate - N | mg/L | 8 | 1/Discharge | NA | - | Composite | 0.063 | J (DNQ*) |
| Nitrate + Nitrite as Nitrogen (N) | mg/L | 8 | 1/Discharge | NA | - | Composite | 0.063 | J (DNQ*) |
| Nitrite - N | mg/L | 1 | 1/Discharge | NA | - | Composite | ND < 0.043 | U* |
| Perchlorate | µg/L | 6.0 | 1/Discharge | NA | - | Composite | ND < 0.91 | U* |
| Settleable Solids [#] | ml/L | 0.3 | 1/Discharge | NA | - | Grab | 0.10 ^(c) | * |
| Sulfate | mg/L | 300 | 1/Discharge | NA | - | Composite | 170 | * |
| Temperature (Field) | Deg F | 86 | 1/Discharge | 1/Quarter | - | Grab | 54.9 | * |
| Total Dissolved Solids | mg/L | 950 | 1/Discharge | NA | - | Composite | 530 | * |
| REMAINING PRIORITY POLLUTANTS | | | | | | | | |
| 1,1,1-Trichloroethane | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.25 | U* |
| 1,1,2,2-Tetrachloroethane | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.20 | U* |
| 1,1,2-Trichloroethane | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.17 | U* |
| 1,1-Dichloroethane | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.39 | U* |
| 1,2,4-Trichlorobenzene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 1,2-Dichlorobenzene (VOC) | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.16 | U* |

OUTFALL 002
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FOURTH QUARTER 2023
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SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | RECEIVING WATER LIMIT | 12/21/2023 07:15 - 12/22/2023 07:45 | | |
|----------------------------------|-------|--|-----------------------------|---|-----------------------------|-------------------------------------|-------------|--|
| | | | | | | SAMPLE TYPE | RESULT | LABORATORY / VALIDATION QUALIFIER |
| 1,2-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 1,2-Dichloropropane | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.17 | U* |
| 1,2-Diphenylhydrazine/Azobenzene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 1,3-Dichlorobenzene (VOC) | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.16 | U* |
| 1,3-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 1,4-Dichlorobenzene (VOC) | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.11 | U* |
| 1,4-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2,4-Dichlorophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2,4-Dimethylphenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2,4-Dinitrophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2,6-Dinitrotoluene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2-Chloroethyl vinyl ether | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2-Chloronaphthalene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2-Chlorophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2-Methyl-4,6-dinitrophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2-Nitrophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 3,3'-Dichlorobenzidine | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 4,4'-DDD | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.0044 | U* |
| 4,4'-DDE | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.0019 | U* |
| 4,4'-DDT | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.0016 | U* |
| 4-Bromophenyl phenyl ether | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 4-Chloro-3-methylphenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 4-Chlorophenyl phenyl ether | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 4-Nitrophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Acenaphthene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Acenaphthylene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Acrolein | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 4.6 | U* |
| Acrylonitrile | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 1.4 | U* |
| Aldrin | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| alpha-Endosulfan | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Anthracene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Aroclor 1016 | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.044 | U* |
| Aroclor 1221 | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.044 | U* |
| Aroclor 1232 | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.044 | U* |
| Aroclor 1242 | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.044 | U* |
| Aroclor 1248 | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.044 | U* |
| Aroclor 1254 | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.052 | U* |
| Aroclor 1260 | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.052 | U* |
| Benzene | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.28 | U* |
| Benzidine | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Benzo(a)anthracene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Benzo(a)pyrene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Benzo(b)fluoranthene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Benzo(g,h,i)perylene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Benzo(k)fluoranthene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| beta-BHC | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| beta-Endosulfan | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Bis (2-Chloroethoxy) Methane | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Bis (2-Chloroethyl) Ether | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Bis (2-Chloroisopropyl) Ether | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Bromoform | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.25 | U* |
| Bromomethane (Methyl Bromide) | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.22 | U* |
| Butyl benzylphthalate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Carbon tetrachloride | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.28 | U* |
| Chlordane | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.026 | U* |
| Chlorobenzene | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.19 | U* |
| Chlorodibromomethane | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.15 | U* |

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October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | RECEIVING WATER LIMIT | 12/21/2023 07:15 - 12/22/2023 07:45 | | |
|--|----------|--|-----------------------------|---|-----------------------------|-------------------------------------|-------------|--|
| | | | | | | SAMPLE TYPE | RESULT | LABORATORY / VALIDATION QUALIFIER |
| Chloroethane | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.29 | U* |
| Chloroform | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.19 | U* |
| Chloromethane (Methyl Chloride) | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.30 | U* |
| Chromium | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Chromium III (Trivalent) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Chrysene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| cis-1,3-Dichloropropene | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.30 | U* |
| delta-BHC | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Dibenzo(a,h)anthracene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Dichlorobromomethane | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.19 | U* |
| Dieldrin | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.0013 | U* |
| Diethyl phthalate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Dimethyl phthalate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Di-n-butyl phthalate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Di-n-octyl phthalate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Endosulfan sulfate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Endrin | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Endrin aldehyde | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Ethylbenzene | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.25 | U* |
| Fluoranthene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Fluorene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| gamma-BHC (Lindane) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Heptachlor | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Heptachlor epoxide | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Hexachlorobenzene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Hexachlorobutadiene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Hexachlorocyclopentadiene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Hexachloroethane | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Indeno(1,2,3-cd)pyrene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Isophorone | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| m,p-Xylenes | µg/L | - | 1/Year ^(x) | 1/5 Years | - | Grab | ND < 0.17 | U* |
| Methylene chloride | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.57 | U* |
| Naphthalene (VOC) | µg/L | - | 1/Year ^(x) | 1/5 Years | - | Grab | ND < 0.33 | U* |
| Naphthalene (SVOC) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Nitrobenzene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| N-Nitroso-di-n-propylamine | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| N-Nitrosodiphenylamine | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| o-Xylene | µg/L | - | 1/Year ^(x) | 1/5 Years | - | Grab | ND < 0.15 | U* |
| Phenanthrene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Phenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Pyrene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Tetrachloroethene | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.21 | U* |
| Toluene | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.23 | U* |
| Toxaphene | µg/L | - | 1/Year | 1/Quarter | - | Composite | ND < 0.054 | U* |
| trans-1,2-Dichloroethene | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.24 | U* |
| trans-1,3-Dichloropropene | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.18 | U* |
| Trichlorofluoromethane | µg/L | - | 1/Year ^(x) | 1/5 Years | - | Grab | ND < 0.29 | U* |
| Vinyl chloride | µg/L | - | 1/Quarter | 1/5 Years | - | Grab | ND < 0.47 | U* |
| Xylenes (Total) | µg/L | - | 1/Year ^(x) | 1/5 Years | - | Grab | ND < 0.17 | U* |
| EFFLUENT MONITORING (NO LIMITATIONS) POLLUTANTS | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | µg/L | - | 1/Quarter | NA | - | Grab | ND < 0.33 | U* |
| 1,2-Dichloro-1,1,2-trifluoroethane | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| 1,4-Dioxane | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Boron | mg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| cis-1,2-Dichloroethene | µg/L | - | 1/Year ^(x) | NA | - | Grab | ND < 0.21 | U* |
| Cobalt | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Conductivity | µmhos/cm | - | 1/Discharge | NA | - | Grab | 860 | * |

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|--|-----------|--|-----------------------------|---|-----------------------------|-------------------------------------|------------|--|
| | | | | | | SAMPLE TYPE | RESULT | |
| Cyclohexane | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Diesel Range Organics (DRO C13-C28) | mg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Dissolved Oxygen (Field) | mg/L | - | 1/Discharge | NA | - | Grab | 13.9 | * |
| E. Coli | mpn/100mL | - | 1/Year | 1/Year | - | ANR | ANR | ANR |
| Gasoline Range Organics (GRO C4-C12) | mg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Hardness (as CaCO3) | mg/L | - | 1/Year | 1/Quarter | - | Composite | 270 | * |
| Monomethyl hydrazine | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Total Organic Carbon | mg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Turbidity | NTU | - | 1/Discharge | NA | - | Composite | 130.0 | * |
| Vanadium | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| ADDITIONAL POLLUTANTS⁽²⁾ | | | | | | | | |
| Antimony, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Arsenic, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Barium, dissolved | mg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Beryllium, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Boron, dissolved | mg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Cadmium, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | 0.13 | J (DNQ*) |
| Chlorpyrifos | µg/L | - | Additional | NA | - | Composite | ND <0.004 | U* |
| Chromium, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Cobalt, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Copper, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | 1.3 | J (DNQ*) |
| Diazinon | µg/L | - | Additional | NA | - | Composite | ND <0.0034 | U* |
| Hardness, Dissolved (as CaCO3) | mg/L | - | Additional/Year | NA | - | Composite | 240 | * |
| Human Bacteroides | CEs/100mL | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Iron, dissolved | mg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Lead, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | 0.18 | J (DNQ*) |
| Manganese, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Mercury, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | ND < 0.12 | U* |
| Nickel, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Selenium, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | 0.81 | J (DNQ*) |
| Silver, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Thallium, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Vanadium, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Zinc, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | ND < 2.8 | U* |

**OUTFALL 002
DISCHARGE MONITORING DATA SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | RECEIVING WATER LIMIT | 12/30/2023 07:20 - 12/31/2023 07:25 | | LABORATORY / VALIDATION QUALIFIER |
|--|------------------------------|--|------------------------------|---|-----------------------------|-------------------------------------|--------------------|--|
| | | | | | | SAMPLE TYPE | RESULT | |
| Flow** | MGD | 117.83 | 1/Discharge | 1/Quarter | - | Meas | 0.17766 | * |
| CONVENTIONAL POLLUTANTS | | | | | | | | |
| Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C) | mg/L | 30 | 1/Discharge | NA | - | Composite | ND < 1.0 | U* |
| Oil & Grease | mg/L | 15 | 1/Discharge | NA | - | Grab | ND < 0.50 | U* |
| pH (Field) | s.u. | 6.5-8.5 | 1/Discharge | 1/Quarter | 6.5-8.5 | Grab | 8.11 | * |
| Total Suspended Solids [#] | mg/L | 45 | 1/Discharge | 1/Year | - | Composite | 2.1 ^(c) | * |
| PRIORITY POLLUTANTS | | | | | | | | |
| 1,1-Dichloroethene | µg/L | 6.0 | 1/Discharge | 1/5 Years | - | Grab | ND < 0.33 | U* |
| 1,2-Dichloroethane | µg/L | 0.5 | 1/Discharge | 1/5 Years | - | Grab | ND < 0.15 | U* |
| 2,4,6-Trichlorophenol | µg/L | 13 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.13 | U* |
| 2,4-Dinitrotoluene | µg/L | 18 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.11 | U* |
| alpha-BHC | µg/L | 0.03 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.0012 | U* |
| Antimony | µg/L | 6.0 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Arsenic | µg/L | 10.0 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Beryllium | µg/L | 4.0 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Bis (2-Ethylhexyl) Phthalate | µg/L | 4.0 | 1/Discharge | 1/5 Years | - | Composite | 12 | J- (S*III) |
| Bis (2-Ethylhexyl) Phthalate ^(f) | µg/L | 4.0 | 1/Discharge | 1/5 Years | - | Composite | ND < 3.6 | U* |
| Cadmium | µg/L | (4.0) 3.1 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.13 | U* |
| Chromium VI (Hexavalent) | µg/L | 16 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Copper | µg/L | 14 | 1/Discharge | 1/5 Years | - | Composite | 0.82 | J (DNQ*) |
| Cyanide | µg/L | 8.5 | 1/Discharge | 1/5 Years | - | Composite | ND < 2.5 | U* |
| Lead | µg/L | 5.2 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.12 | U* |
| Mercury | µg/L | 0.1 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.12 | U* |
| Nickel | µg/L | 94 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| N-Nitrosodimethylamine | µg/L | 16 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.18 | U* |
| Pentachlorophenol | µg/L | 16.5 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.81 | U* |
| Selenium | µg/L | (5) 8.2 | 1/Discharge | 1/5 Years | - | Composite | ND < 0.52 | U* |
| Silver | µg/L | 4.1 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Thallium | µg/L | 2.0 | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Trichloroethene | µg/L | 5.0 | 1/Discharge | 1/5 Years | - | Grab | ND < 0.17 | U* |
| Zinc | µg/L | 119 | 1/Discharge | 1/5 Years | - | Composite | ND < 2.8 | U* |
| NON-CONVENTIONAL POLLUTANTS | | | | | | | | |
| Ammonia - N | mg/L | 10.1 | 1/Discharge | NA | - | Composite | ND < 0.029 | U* |
| Barium | mg/L | 1.0 | 1/Year | NA | - | ANR | ANR | ANR |
| Chloride | mg/L | 150 | 1/Discharge | NA | - | Composite | 51 | * |
| Chlorine, Total Residual (Field) | mg/L | 0.1 | 1/Year | NA | - | ANR | ANR | ANR |
| Chronic Toxicity | Pass or Fail and % Effect | Pass or % Effect <50 | 1st & 2nd rain event/Year | NA | - | ANR | ANR | ANR |
| Detergents (as MBAS) | mg/L | 0.5 | 1/Discharge | NA | - | Composite | ND < 0.050 | U* |
| Fluoride | mg/L | 1.6 | 1/Year | NA | - | ANR | ANR | ANR |
| Iron | mg/L | 0.3 | 1/Year | NA | - | ANR | ANR | ANR |
| Manganese | µg/L | 50 | 1/Year | NA | - | ANR | ANR | ANR |
| Nitrate - N | mg/L | 8 | 1/Discharge | NA | - | Composite | ND < 0.039 | U* |
| Nitrate + Nitrite as Nitrogen (N) | mg/L | 8 | 1/Discharge | NA | - | Composite | ND < 0.020 | U* |
| Nitrite - N | mg/L | 1 | 1/Discharge | NA | - | Composite | ND < 0.086 | U* |
| Perchlorate | µg/L | 6.0 | 1/Discharge | NA | - | Composite | ND < 0.91 | U* |
| Settleable Solids [#] | ml/L | 0.3 | 1/Discharge | NA | - | Grab | ND < 0.10 | U* |
| Sulfate | mg/L | 300 | 1/Discharge | NA | - | Composite | 280 | * |
| Temperature (Field) | Deg F | 86 | 1/Discharge | 1/Quarter | - | Grab | 51.4 | * |
| Total Dissolved Solids | mg/L | 950 | 1/Discharge | NA | - | Composite | 780 | * |
| REMAINING PRIORITY POLLUTANTS | | | | | | | | |
| 1,1,1-Trichloroethane | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| 1,1,2,2-Tetrachloroethane | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| 1,1,2-Trichloroethane | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| 1,1-Dichloroethane | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| 1,2,4-Trichlorobenzene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 1,2-Dichlorobenzene (VOC) | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |

OUTFALL 002
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FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | RECEIVING WATER LIMIT | 12/30/2023 07:20 - 12/31/2023 07:25 | | |
|----------------------------------|-------|--|-----------------------------|---|-----------------------------|-------------------------------------|--------|--|
| | | | | | | SAMPLE TYPE | RESULT | LABORATORY / VALIDATION QUALIFIER |
| 1,2-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 1,2-Dichloropropane | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| 1,2-Diphenylhydrazine/Azobenzene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 1,3-Dichlorobenzene (VOC) | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| 1,3-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 1,4-Dichlorobenzene (VOC) | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| 1,4-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2,4-Dichlorophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2,4-Dimethylphenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2,4-Dinitrophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2,6-Dinitrotoluene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2-Chloroethyl vinyl ether | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2-Chloronaphthalene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2-Chlorophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2-Methyl-4,6-dinitrophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 2-Nitrophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 3,3'-Dichlorobenzidine | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 4,4'-DDD | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| 4,4'-DDE | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| 4,4'-DDT | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| 4-Bromophenyl phenyl ether | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 4-Chloro-3-methylphenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 4-Chlorophenyl phenyl ether | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| 4-Nitrophenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Acenaphthene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Acenaphthylene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Acrolein | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Acrylonitrile | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Aldrin | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| alpha-Endosulfan | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Anthracene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Aroclor 1016 | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| Aroclor 1221 | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| Aroclor 1232 | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| Aroclor 1242 | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| Aroclor 1248 | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| Aroclor 1254 | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| Aroclor 1260 | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| Benzene | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Benzidine | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Benzo(a)anthracene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Benzo(a)pyrene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Benzo(b)fluoranthene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Benzo(g,h,i)perylene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Benzo(k)fluoranthene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| beta-BHC | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| beta-Endosulfan | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Bis (2-Chloroethoxy) Methane | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Bis (2-Chloroethyl) Ether | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Bis (2-Chloroisopropyl) Ether | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Bromoform | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Bromomethane (Methyl Bromide) | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Butyl benzylphthalate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Carbon tetrachloride | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Chlordane | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| Chlorobenzene | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Chlorodibromomethane | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |

OUTFALL 002
DISCHARGE MONITORING DATA SUMMARY TABLE

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SANTA SUSANA FIELD LABORATORY
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October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | RECEIVING WATER LIMIT | 12/30/2023 07:20 - 12/31/2023 07:25 | | |
|--|----------|--|-----------------------------|---|-----------------------------|-------------------------------------|--------|--|
| | | | | | | SAMPLE TYPE | RESULT | LABORATORY / VALIDATION QUALIFIER |
| Chloroethane | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Chloroform | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Chloromethane (Methyl Chloride) | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Chromium | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Chromium III (Trivalent) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Chrysene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| cis-1,3-Dichloropropene | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| delta-BHC | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Dibenzo(a,h)anthracene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Dichlorobromomethane | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Dieldrin | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| Diethyl phthalate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Dimethyl phthalate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Di-n-butyl phthalate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Di-n-octyl phthalate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Endosulfan sulfate | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Endrin | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Endrin aldehyde | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Ethylbenzene | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Fluoranthene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Fluorene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| gamma-BHC (Lindane) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Heptachlor | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Heptachlor epoxide | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Hexachlorobenzene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Hexachlorobutadiene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Hexachlorocyclopentadiene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Hexachloroethane | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Indeno(1,2,3-cd)pyrene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Isophorone | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| m,p-Xylenes | µg/L | - | 1/Year ^(x) | 1/5 Years | - | ANR | ANR | ANR |
| Methylene chloride | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Naphthalene (VOC) | µg/L | - | 1/Year ^(x) | 1/5 Years | - | ANR | ANR | ANR |
| Naphthalene (SVOC) | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Nitrobenzene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| N-Nitroso-di-n-propylamine | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| N-Nitrosodiphenylamine | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| o-Xylene | µg/L | - | 1/Year ^(x) | 1/5 Years | - | ANR | ANR | ANR |
| Phenanthrene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Phenol | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Pyrene | µg/L | - | 1/Year | 1/5 Years | - | ANR | ANR | ANR |
| Tetrachloroethene | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Toluene | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Toxaphene | µg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| trans-1,2-Dichloroethene | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| trans-1,3-Dichloropropene | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Trichlorofluoromethane | µg/L | - | 1/Year ^(x) | 1/5 Years | - | ANR | ANR | ANR |
| Vinyl chloride | µg/L | - | 1/Quarter | 1/5 Years | - | ANR | ANR | ANR |
| Xylenes (Total) | µg/L | - | 1/Year ^(x) | 1/5 Years | - | ANR | ANR | ANR |
| EFFLUENT MONITORING (NO LIMITATIONS) POLLUTANTS | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | µg/L | - | 1/Quarter | NA | - | ANR | ANR | ANR |
| 1,2-Dichloro-1,1,2-trifluoroethane | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| 1,4-Dioxane | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Boron | mg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| cis-1,2-Dichloroethene | µg/L | - | 1/Year ^(x) | NA | - | ANR | ANR | ANR |
| Cobalt | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Conductivity | µmhos/cm | - | 1/Discharge | NA | - | Grab | 1,100 | * |

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DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
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SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| | | | | | | 12/30/2023 07:20 - 12/31/2023 07:25 | | |
|--|-----------|--|-----------------------------|---|-----------------------------|-------------------------------------|-----------|--|
| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | RECEIVING WATER LIMIT | SAMPLE TYPE | RESULT | LABORATORY / VALIDATION QUALIFIER |
| Cyclohexane | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Diesel Range Organics (DRO C13-C28) | mg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Dissolved Oxygen (Field) | mg/L | - | 1/Discharge | NA | - | Grab | 8.03 | * |
| E. Coli | mpn/100mL | - | 1/Year | 1/Year | - | ANR | ANR | ANR |
| Gasoline Range Organics (GRO C4-C12) | mg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Hardness (as CaCO3) | mg/L | - | 1/Year | 1/Quarter | - | ANR | ANR | ANR |
| Monomethyl hydrazine | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Total Organic Carbon | mg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| Turbidity | NTU | - | 1/Discharge | NA | - | Composite | 1.8 | * |
| Vanadium | µg/L | - | 1/Year | NA | - | ANR | ANR | ANR |
| ADDITIONAL POLLUTANTS⁽²⁾ | | | | | | | | |
| Antimony, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Arsenic, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Barium, dissolved | mg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Beryllium, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Boron, dissolved | mg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Cadmium, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | ND < 0.13 | U* |
| Chlorpyrifos | µg/L | - | Additional | NA | - | ANR | ANR | ANR |
| Chromium, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Cobalt, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Copper, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | 0.72 | J (DNQ*) |
| Diazinon | µg/L | - | Additional | NA | - | ANR | ANR | ANR |
| Hardness, Dissolved (as CaCO3) | mg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Human Bacteroides | CEs/100mL | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Iron, dissolved | mg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Lead, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | ND < 0.12 | U* |
| Manganese, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Mercury, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | ND < 0.12 | U* |
| Nickel, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Selenium, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | 0.68 | J (DNQ*) |
| Silver, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Thallium, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Vanadium, dissolved | µg/L | - | Additional/Year | NA | - | ANR | ANR | ANR |
| Zinc, dissolved | µg/L | - | Additional/Discharge | NA | - | Composite | ND < 2.8 | U* |

OUTFALL 002
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | 1998 WHO TEF | BEF GREAT LAKES WATER QUALITY INITIATIVE | UNITS | 12/22/2023 07:45 (Composite) | | | |
|---------------------|--------------------------|----------------------------------|--------------|--|-------|------------------------------|------------|----------------------------------|------------------------------------|
| | | | | | | LAB MDL | LAB RESULT | LABORATORY/ VALIDATION QUALIFIER | TCDD EQUIVALENT (w/out DNQ Values) |
| 1,2,3,4,6,7,8-HpCDD | 1/Discharge | 1/Year | 0.01 | 0.05 | µg/L | 4.9E-07 | 2.1E-05 | U (B) | ND |
| 1,2,3,4,6,7,8-HpCDF | 1/Discharge | 1/Year | 0.01 | 0.01 | µg/L | 3.4E-07 | 9.0E-06 | U (B) | ND |
| 1,2,3,4,7,8,9-HpCDF | 1/Discharge | 1/Year | 0.01 | 0.4 | µg/L | 3.4E-07 | 1.0E-06 | UJ (*III) | ND |
| 1,2,3,4,7,8-HxCDD | 1/Discharge | 1/Year | 0.1 | 0.3 | µg/L | 3.3E-07 | 1.4E-06 | UJ (*III) | ND |
| 1,2,3,4,7,8-HxCDF | 1/Discharge | 1/Year | 0.1 | 0.08 | µg/L | 4.4E-07 | ND | U | ND |
| 1,2,3,6,7,8-HxCDD | 1/Discharge | 1/Year | 0.1 | 0.1 | µg/L | 3.5E-07 | ND | U | ND |
| 1,2,3,6,7,8-HxCDF | 1/Discharge | 1/Year | 0.1 | 0.2 | µg/L | 3.9E-07 | ND | U | ND |
| 1,2,3,7,8,9-HxCDD | 1/Discharge | 1/Year | 0.1 | 0.1 | µg/L | 3.2E-07 | 8.6E-07 | UJ (*III) | ND |
| 1,2,3,7,8,9-HxCDF | 1/Discharge | 1/Year | 0.1 | 0.6 | µg/L | 3.3E-07 | 1.0E-06 | J (DNQ) | ND |
| 1,2,3,7,8-PeCDD | 1/Discharge | 1/Year | 1.0 | 0.9 | µg/L | 2.9E-07 | ND | U | ND |
| 1,2,3,7,8-PeCDF | 1/Discharge | 1/Year | 0.05 | 0.2 | µg/L | 2.9E-07 | ND | U | ND |
| 2,3,4,6,7,8-HxCDF | 1/Discharge | 1/Year | 0.1 | 0.7 | µg/L | 3.5E-07 | ND | U | ND |
| 2,3,4,7,8-PeCDF | 1/Discharge | 1/Year | 0.5 | 1.6 | µg/L | 3.2E-07 | ND | U | ND |
| 2,3,7,8-TCDD | 1/Discharge | 1/Year | 1.0 | 1.0 | µg/L | 5.8E-07 | ND | U | ND |
| 2,3,7,8-TCDF | 1/Discharge | 1/Year | 0.1 | 0.8 | µg/L | 4.3E-07 | ND | U | ND |
| OCDD | 1/Discharge | 1/Year | 0.0001 | 0.01 | µg/L | 1.4E-06 | 2.5E-04 | -- | 2.5E-10 |
| OCDF | 1/Discharge | 1/Year | 0.0001 | 0.02 | µg/L | 6.5E-07 | 2.1E-05 | U (B) | ND |

| | |
|--|---------|
| TCDD TEQ w/out DNQ Values ⁽⁴⁾ | 2.5E-10 |
|--|---------|

TCDD TEQ (PRIORITY POLLUTANTS) BENCHMARK LIMIT⁽¹⁾ = 2.8E-08

OUTFALL 002
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | 1998 WHO TEF | BEF GREAT LAKES WATER QUALITY INITIATIVE | UNITS | 12/31/2023 07:25 (Composite) | | | |
|---------------------|--------------------------|----------------------------------|--------------|--|-------|------------------------------|------------|----------------------------------|------------------------------------|
| | | | | | | LAB MDL | LAB RESULT | LABORATORY/ VALIDATION QUALIFIER | TCDD EQUIVALENT (w/out DNQ Values) |
| 1,2,3,4,6,7,8-HpCDD | 1/Discharge | 1/Year | 0.01 | 0.05 | µg/L | 3.2E-07 | 8.8E-06 | U (B) | ND |
| 1,2,3,4,6,7,8-HpCDF | 1/Discharge | 1/Year | 0.01 | 0.01 | µg/L | 1.5E-06 | 7.1E-06 | U (B) | ND |
| 1,2,3,4,7,8,9-HpCDF | 1/Discharge | 1/Year | 0.01 | 0.4 | µg/L | 1.6E-06 | 6.4E-06 | UJ (*III) | ND |
| 1,2,3,4,7,8-HxCDD | 1/Discharge | 1/Year | 0.1 | 0.3 | µg/L | 1.6E-06 | 5.6E-06 | U (B) | ND |
| 1,2,3,4,7,8-HxCDF | 1/Discharge | 1/Year | 0.1 | 0.08 | µg/L | 1.2E-06 | ND | U | ND |
| 1,2,3,6,7,8-HxCDD | 1/Discharge | 1/Year | 0.1 | 0.1 | µg/L | 1.7E-06 | 5.2E-06 | U (B) | ND |
| 1,2,3,6,7,8-HxCDF | 1/Discharge | 1/Year | 0.1 | 0.2 | µg/L | 1.0E-06 | 3.2E-06 | UJ (*III) | ND |
| 1,2,3,7,8,9-HxCDD | 1/Discharge | 1/Year | 0.1 | 0.1 | µg/L | 1.6E-06 | 5.8E-06 | U (B) | ND |
| 1,2,3,7,8,9-HxCDF | 1/Discharge | 1/Year | 0.1 | 0.6 | µg/L | 1.0E-06 | 3.6E-06 | UJ (*III) | ND |
| 1,2,3,7,8-PeCDD | 1/Discharge | 1/Year | 1.0 | 0.9 | µg/L | 1.4E-06 | ND | U | ND |
| 1,2,3,7,8-PeCDF | 1/Discharge | 1/Year | 0.05 | 0.2 | µg/L | 8.6E-07 | ND | U | ND |
| 2,3,4,6,7,8-HxCDF | 1/Discharge | 1/Year | 0.1 | 0.7 | µg/L | 9.1E-07 | 3.4E-06 | UJ (*III) | ND |
| 2,3,4,7,8-PeCDF | 1/Discharge | 1/Year | 0.5 | 1.6 | µg/L | 9.6E-07 | ND | U | ND |
| 2,3,7,8-TCDD | 1/Discharge | 1/Year | 1.0 | 1.0 | µg/L | 1.1E-06 | ND | U | ND |
| 2,3,7,8-TCDF | 1/Discharge | 1/Year | 0.1 | 0.8 | µg/L | 1.6E-07 | ND | U | ND |
| OCDD | 1/Discharge | 1/Year | 0.0001 | 0.01 | µg/L | 2.6E-06 | 5.4E-05 | U (B) | ND |
| OCDF | 1/Discharge | 1/Year | 0.0001 | 0.02 | µg/L | 1.7E-06 | 1.5E-05 | U (B) | ND |

| | |
|--|----|
| TCDD TEQ w/out DNQ Values ⁽⁴⁾ | ND |
|--|----|

TCDD TEQ (PRIORITY POLLUTANTS) BENCHMARK LIMIT⁽¹⁾ = 2.8E-08

OUTFALL 002
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | RECEIVING WATER LIMIT | 12/22/2023 07:45 (Composite) | | |
|---|-------|-------------------------------|--------------------------|----------------------------------|-----------------------|------------------------------|-------|----------------------------------|
| | | | | | | RESULT | MDA | LABORATORY/ VALIDATION QUALIFIER |
| NON-CONVENTIONAL POLLUTANTS | | | | | | | | |
| Gross Alpha | pCi/L | 15 | 1/Discharge | NA | -/- | 8.88 ± 4.16 | 5.26 | * |
| Gross Beta | pCi/L | 50 | 1/Discharge | NA | -/- | 4.56 ± 1.41 | 1.62 | * |
| Combined Radium-226 & Radium-228 | pCi/L | 5.0 | 1/Discharge | NA | -/- | 0.779 ± 0.493 | NM | U |
| Strontium-90 | pCi/L | 8.0 | 1/Discharge | NA | -/- | 0.00257 ± 0.209 | 0.381 | U* |
| Tritium | pCi/L | 20,000 | 1/Discharge | NA | -/- | -8.11 ± 163 | 294 | U* |
| ADDITIONAL POLLUTANTS | | | | | | | | |
| Cesium-137 | pCi/L | 200 | 1/Discharge | NA | -/- | -3.58 ± 9.22 | 11.0 | U* |
| Uranium | pCi/L | 20 | 1/Discharge | NA | -/- | 1.31 ± 0.532 | 0.289 | * |
| ADDITIONAL POLLUTANTS WITHOUT LIMITS | | | | | | | | |
| Potassium-40 | pCi/L | - | 1/Discharge | NA | -/- | 10.6 ± 99.1 | 118 | U* |

OUTFALL 002
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | OUTFALL SAMPLE FREQUENCY | RECEIVING WATER SAMPLE FREQUENCY | RECEIVING WATER LIMIT | 12/31/2023 07:25 (Composite) | | |
|---|-------|-------------------------------|--------------------------|----------------------------------|-----------------------|------------------------------|-------|----------------------------------|
| | | | | | | RESULT | MDA | LABORATORY/ VALIDATION QUALIFIER |
| NON-CONVENTIONAL POLLUTANTS | | | | | | | | |
| Gross Alpha | pCi/L | 15 | 1/Discharge | NA | -/- | 2.56 ± 3.73 | 6.28 | U* |
| Gross Beta | pCi/L | 50 | 1/Discharge | NA | -/- | 1.62 ± 1.31 | 2.04 | U* |
| Combined Radium-226 & Radium-228 | pCi/L | 5.0 | 1/Discharge | NA | -/- | 1.14 ± 0.502 | NM | - |
| Strontium-90 | pCi/L | 8.0 | 1/Discharge | NA | -/- | 0.302 ± 0.226 | 0.352 | U* |
| Tritium | pCi/L | 20,000 | 1/Discharge | NA | -/- | 116 ± 121 | 198 | U* |
| ADDITIONAL POLLUTANTS | | | | | | | | |
| Cesium-137 | pCi/L | 200 | 1/Discharge | NA | -/- | -1.36 ± 9.51 | 11.7 | U* |
| Uranium | pCi/L | 20 | 1/Discharge | NA | -/- | 1.94 ± 0.454 | 0.199 | * |
| ADDITIONAL POLLUTANTS WITHOUT LIMITS | | | | | | | | |
| Potassium-40 | pCi/L | - | 1/Discharge | NA | -/- | -7.15 ± 121 | 135 | U* |

OUTFALL 002
DISCHARGE MONITORING MASS SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

12/21/2023 07:15 - 12/22/2023 07:45

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
|--|---------|-------------------------------|------------------|-------------|---------|----------------------------------|
| Flow** | MGD | 117.83 | 1/Discharge | Meas | 1.1015 | * |
| CONVENTIONAL POLLUTANTS | | | | | | |
| Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C) | LBS/DAY | 29,481 | 1/Discharge | Composite | 29 | * |
| Oil & Grease | LBS/DAY | 14,741 | 1/Discharge | Grab | ND | U* |
| Total Suspended Solids [‡] | LBS/DAY | 44,222 | 1/Discharge | Composite | 530 | * |
| PRIORITY POLLUTANTS | | | | | | |
| 1,1-Dichloroethene | LBS/DAY | 5.9 | 1/Discharge | Grab | ND | U* |
| 1,2-Dichloroethane | LBS/DAY | 0.49 | 1/Discharge | Grab | ND | U* |
| 2,4,6-Trichlorophenol | LBS/DAY | 12.8 | 1/Discharge | Composite | ND | U* |
| 2,4-Dinitrotoluene | LBS/DAY | 18 | 1/Discharge | Composite | ND | U* |
| alpha-BHC | LBS/DAY | 0.03 | 1/Discharge | Composite | ND | U* |
| Antimony | LBS/DAY | 5.9 | 1/Year | ANR | ANR | ANR |
| Arsenic | LBS/DAY | 9.83 | 1/Year | ANR | ANR | ANR |
| Beryllium | LBS/DAY | 3.93 | 1/Year | ANR | ANR | ANR |
| Bis (2-Ethylhexyl) Phthalate | LBS/DAY | 3.93 | 1/Discharge | Composite | ND | U* |
| Bis (2-Ethylhexyl) Phthalate [‡] | LBS/DAY | 3.93 | 1/Discharge | ANR | ANR | ANR |
| Cadmium | LBS/DAY | (3.93) 3.05 | 1/Discharge | Composite | ND | U* |
| Chromium VI (Hexavalent) | LBS/DAY | 15.72 | 1/Year | ANR | ANR | ANR |
| Copper | LBS/DAY | 13.76 | 1/Discharge | Composite | 0.03 | * |
| Cyanide | LBS/DAY | 8.35 | 1/Discharge | Composite | ND | U* |
| Lead | LBS/DAY | 5.11 | 1/Discharge | Composite | 0.0170 | * |
| Mercury | LBS/DAY | 0.1 | 1/Discharge | Composite | ND | U* |
| Nickel | LBS/DAY | 92.4 | 1/Year | ANR | ANR | ANR |
| N-Nitrosodimethylamine | LBS/DAY | 15.72 | 1/Discharge | Composite | ND | U* |
| Pentachlorophenol | LBS/DAY | 16.22 | 1/Discharge | Composite | ND | U* |
| Selenium | LBS/DAY | (8.06) 4.91 | 1/Discharge | Composite | 0.0049 | J (DNQ*) |
| Silver | LBS/DAY | 4.03 | 1/Year | ANR | ANR | ANR |
| TCDD TEQ_NoDNQ ⁽⁴⁾ | LBS/DAY | 2.75E-08 | 1/Discharge | Composite | 2.3E-12 | * |
| Thallium | LBS/DAY | 1.97 | 1/Year | ANR | ANR | ANR |
| Trichloroethene | LBS/DAY | 4.91 | 1/Discharge | Grab | ND | U* |
| Zinc | LBS/DAY | 117 | 1/Discharge | Composite | 0.120 | J (DNQ*) |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Ammonia - N | LBS/DAY | 9,925.3 | 1/Discharge | Composite | ND | U* |
| Barium | LBS/DAY | 983 | 1/Year | ANR | ANR | ANR |
| Chloride | LBS/DAY | 147,405 | 1/Discharge | Composite | 280 | * |
| Chlorine, Total Residual (Field) | LBS/DAY | 98.3 | 1/Year | ANR | ANR | ANR |
| Detergents (as MBAS) | LBS/DAY | 491.4 | 1/Discharge | Composite | 0.67 | J (DNQ*) |
| Fluoride | LBS/DAY | 1,572.3 | 1/Year | ANR | ANR | ANR |
| Iron | LBS/DAY | 295 | 1/Year | ANR | ANR | ANR |
| Manganese | LBS/DAY | 49.1 | 1/Year | ANR | ANR | ANR |
| Nitrate - N | LBS/DAY | 7,862 | 1/Discharge | Composite | 0.58 | J (DNQ*) |
| Nitrate + Nitrite as Nitrogen (N) | LBS/DAY | 7,862 | 1/Discharge | Composite | 0.58 | J (DNQ*) |
| Nitrite - N | LBS/DAY | 983 | 1/Discharge | Composite | ND | U* |
| Perchlorate | LBS/DAY | 5.9 | 1/Discharge | Composite | ND | U* |
| Sulfate | LBS/DAY | 294,810 | 1/Discharge | Composite | 1,600 | * |
| Total Dissolved Solids | LBS/DAY | 933,567 | 1/Discharge | Composite | 4,900 | * |

OUTFALL 002
DISCHARGE MONITORING MASS SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

12/30/2023 07:20 - 12/31/2023 07:25

| ANALYTE | UNITS | DAILY MAXIMUM BENCHMARK LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
|--|---------|-------------------------------|------------------|-------------|---------|----------------------------------|
| Flow** | MGD | 117.83 | 1/Discharge | Meas | 0.17766 | * |
| CONVENTIONAL POLLUTANTS | | | | | | |
| Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C) | LBS/DAY | 29,481 | 1/Discharge | Composite | ND | U* |
| Oil & Grease | LBS/DAY | 14,741 | 1/Discharge | Grab | ND | U* |
| Total Suspended Solids [‡] | LBS/DAY | 44,222 | 1/Discharge | Composite | 3.1 | * |
| PRIORITY POLLUTANTS | | | | | | |
| 1,1-Dichloroethene | LBS/DAY | 5.9 | 1/Discharge | Grab | ND | U* |
| 1,2-Dichloroethane | LBS/DAY | 0.49 | 1/Discharge | Grab | ND | U* |
| 2,4,6-Trichlorophenol | LBS/DAY | 12.8 | 1/Discharge | Composite | ND | U* |
| 2,4-Dinitrotoluene | LBS/DAY | 18 | 1/Discharge | Composite | ND | U* |
| alpha-BHC | LBS/DAY | 0.03 | 1/Discharge | Composite | ND | U* |
| Antimony | LBS/DAY | 5.9 | 1/Year | ANR | ANR | ANR |
| Arsenic | LBS/DAY | 9.83 | 1/Year | ANR | ANR | ANR |
| Beryllium | LBS/DAY | 3.93 | 1/Year | ANR | ANR | ANR |
| Bis (2-Ethylhexyl) Phthalate | LBS/DAY | 3.93 | 1/Discharge | Composite | 0.018 | J- (S'III) |
| Bis (2-Ethylhexyl) Phthalate ¹ | LBS/DAY | 3.93 | 1/Discharge | Composite | ND | U* |
| Cadmium | LBS/DAY | (3.93) 3.05 | 1/Discharge | Composite | ND | U* |
| Chromium VI (Hexavalent) | LBS/DAY | 15.72 | 1/Year | ANR | ANR | ANR |
| Copper | LBS/DAY | 13.76 | 1/Discharge | Composite | 0.0012 | J (DNQ*) |
| Cyanide | LBS/DAY | 8.35 | 1/Discharge | Composite | ND | U* |
| Lead | LBS/DAY | 5.11 | 1/Discharge | Composite | ND | U* |
| Mercury | LBS/DAY | 0.1 | 1/Discharge | Composite | ND | U* |
| Nickel | LBS/DAY | 92.4 | 1/Year | ANR | ANR | ANR |
| N-Nitrosodimethylamine | LBS/DAY | 15.72 | 1/Discharge | Composite | ND | U* |
| Pentachlorophenol | LBS/DAY | 16.22 | 1/Discharge | Composite | ND | U* |
| Selenium | LBS/DAY | (8.06) 4.91 | 1/Discharge | Composite | ND | U* |
| Silver | LBS/DAY | 4.03 | 1/Year | ANR | ANR | ANR |
| TCDD TEQ_NoDNQ ⁽⁴⁾ | LBS/DAY | 2.75E-08 | 1/Discharge | Composite | ND | U* |
| Thallium | LBS/DAY | 1.97 | 1/Year | ANR | ANR | ANR |
| Trichloroethene | LBS/DAY | 4.91 | 1/Discharge | Grab | ND | U* |
| Zinc | LBS/DAY | 117 | 1/Discharge | Composite | ND | U* |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Ammonia - N | LBS/DAY | 9,925.3 | 1/Discharge | Composite | ND | U* |
| Barium | LBS/DAY | 983 | 1/Year | ANR | ANR | ANR |
| Chloride | LBS/DAY | 147,405 | 1/Discharge | Composite | 76 | * |
| Chlorine, Total Residual (Field) | LBS/DAY | 98.3 | 1/Year | ANR | ANR | ANR |
| Detergents (as MBAS) | LBS/DAY | 491.4 | 1/Discharge | Composite | ND | U* |
| Fluoride | LBS/DAY | 1,572.3 | 1/Year | ANR | ANR | ANR |
| Iron | LBS/DAY | 295 | 1/Year | ANR | ANR | ANR |
| Manganese | LBS/DAY | 49.1 | 1/Year | ANR | ANR | ANR |
| Nitrate - N | LBS/DAY | 7,862 | 1/Discharge | Composite | ND | U* |
| Nitrate + Nitrite as Nitrogen (N) | LBS/DAY | 7,862 | 1/Discharge | Composite | ND | U* |
| Nitrite - N | LBS/DAY | 983 | 1/Discharge | Composite | ND | U* |
| Perchlorate | LBS/DAY | 5.9 | 1/Discharge | Composite | ND | U* |
| Sulfate | LBS/DAY | 294,810 | 1/Discharge | Composite | 410 | * |
| Total Dissolved Solids | LBS/DAY | 933,567 | 1/Discharge | Composite | 1,200 | * |

**OUTFALL 008
DISCHARGE MONITORING DATA SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | 12/21/2023 12:00 - 12/22/2023 09:00 | | |
|--------------------------------------|---------------------------|----------------------------|---------------------------|-------------------------------------|---------------------|----------------------------------|
| | | | | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Flow** | MGD | 7.21 | 1/Discharge | Meas | 0.011 | * |
| CONVENTIONAL POLLUTANTS | | | | | | |
| Oil & Grease | mg/L | 15 | 1/Discharge | Grab | ND < 0.50 | U* |
| pH (Field) | s.u | 6.5-8.5 | 1/Discharge | Grab | 7.82 | * |
| PRIORITY POLLUTANTS | | | | | | |
| Antimony | ug/L | 6.0 | 1/Discharge | Composite | 4.4 | * |
| Cadmium | ug/L | (4.0) 3.1 | 1/Discharge | Composite | 0.17 ^(b) | J (DNQ*) |
| Copper | ug/L | 14 | 1/Discharge | Composite | 1.3 | J (DNQ*) |
| Cyanide | ug/L | 9.5 | 1/Discharge | Composite | ND < 2.5 | U* |
| Lead | ug/L | 5.2 | 1/Discharge | Composite | 0.60 | J (DNQ*) |
| Mercury | ug/L | 0.13 | 1/Discharge | Composite | ND < 0.12 | U* |
| Nickel | ug/L | 86 | 1/Discharge | Composite | 1.8 | J (DNQ*) |
| Selenium | ug/L | 5 | 1/Discharge | Composite | ND < 0.52 | U* |
| Thallium | ug/L | 2.0 | 1/Discharge | Composite | 0.18 | J (DNQ*) |
| Zinc | ug/L | 120 | 1/Discharge | Composite | 5.6 | J (DNQ*) |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Ammonia - N | mg/L | 10.1 | 1/Discharge | Composite | 0.043 | J (DNQ*) |
| Boron | mg/L | 1.0 | 1/Year | ANR | ANR | ANR |
| Chloride | mg/L | 150 | 1/Discharge | Composite | 2.5 | * |
| Chronic Toxicity | Pass or Fail and % Effect | Pass or % Effect <50 | 1st & 2nd rain event/Year | ANR | ANR | ANR |
| Fluoride | mg/L | 1.6 | 1/Year | ANR | ANR | ANR |
| Nitrate - N | mg/L | 8 | 1/Discharge | Composite | 0.64 | * |
| Nitrate + Nitrite as Nitrogen (N) | mg/L | 8 | 1/Discharge | Composite | 0.64 | * |
| Nitrite - N | mg/L | 1 | 1/Discharge | Composite | ND < 0.043 | U* |
| Perchlorate | ug/L | 6.0 | 1/Discharge | Composite | ND < 0.91 | U* |
| Sulfate | mg/L | 300 | 1/Discharge | Composite | 1.7 | * |
| Temperature (Field) | Deg F | 86 | 1/Discharge | Grab | 55.3 | * |
| Total Dissolved Solids | mg/L | 950 | 1/Discharge | Composite | 63 | * |
| REMAINING PRIORITY POLLUTANTS | | | | | | |
| 1,1,1-Trichloroethane | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,1,2,2-Tetrachloroethane | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,1,2-Trichloroethane | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,1-Dichloroethane | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,1-Dichloroethene | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,2,4-Trichlorobenzene | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Dichlorobenzene (VOC) | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Dichlorobenzene (SVOC) | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Dichloroethane | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Dichloropropane | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Diphenylhydrazine/Azobenzene | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,3-Dichlorobenzene (VOC) | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,3-Dichlorobenzene (SVOC) | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,4-Dichlorobenzene (VOC) | ug/L | - | 1/Year | ANR | ANR | ANR |
| 1,4-Dichlorobenzene (SVOC) | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2,4,6-Trichlorophenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dichlorophenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dimethylphenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dinitrophenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dinitrotoluene | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2,6-Dinitrotoluene | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2-Chloroethyl vinyl ether | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2-Chloronaphthalene | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2-Chlorophenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2-Methyl-4,6-dinitrophenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| 2-Nitrophenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| 3,3'-Dichlorobenzidine | ug/L | - | 1/Year | ANR | ANR | ANR |
| 4,4'-DDD | ug/L | - | 1/Year | ANR | ANR | ANR |

OUTFALL 008
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | 12/21/2023 12:00 - 12/22/2023 09:00 | | |
|---------------------------------|-------|----------------------------|------------------|-------------------------------------|--------|----------------------------------|
| | | | | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| 4,4'-DDE | ug/L | - | 1/Year | ANR | ANR | ANR |
| 4,4'-DDT | ug/L | - | 1/Year | ANR | ANR | ANR |
| 4-Bromophenyl phenyl ether | ug/L | - | 1/Year | ANR | ANR | ANR |
| 4-Chloro-3-methylphenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| 4-Chlorophenyl phenyl ether | ug/L | - | 1/Year | ANR | ANR | ANR |
| 4-Nitrophenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| Acenaphthene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Acenaphthylene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Acrolein | ug/L | - | 1/Year | ANR | ANR | ANR |
| Acrylonitrile | ug/L | - | 1/Year | ANR | ANR | ANR |
| Aldrin | ug/L | - | 1/Year | ANR | ANR | ANR |
| alpha-BHC | ug/L | - | 1/Year | ANR | ANR | ANR |
| alpha-Endosulfan | ug/L | - | 1/Year | ANR | ANR | ANR |
| Anthracene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1016 | ug/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1221 | ug/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1232 | ug/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1242 | ug/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1248 | ug/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1254 | ug/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1260 | ug/L | - | 1/Year | ANR | ANR | ANR |
| Arsenic | ug/L | - | 1/Year | ANR | ANR | ANR |
| Asbestos, > 0.5 um | MFL | - | 1/Year | ANR | ANR | ANR |
| Asbestos, >10 um | MFL | - | 1/Year | ANR | ANR | ANR |
| Benzene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Benzidine | ug/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(a)anthracene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(a)pyrene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(b)fluoranthene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(g,h,i)perylene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(k)fluoranthene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Beryllium | ug/L | - | 1/Year | ANR | ANR | ANR |
| beta-BHC | ug/L | - | 1/Year | ANR | ANR | ANR |
| beta-Endosulfan | ug/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Chloroethoxy) Methane | ug/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Chloroethyl) Ether | ug/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Chloroisopropyl) Ether | ug/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Ethylhexyl) Phthalate | ug/L | - | 1/Year | ANR | ANR | ANR |
| Bromoform | ug/L | - | 1/Year | ANR | ANR | ANR |
| Bromomethane (Methyl Bromide) | ug/L | - | 1/Year | ANR | ANR | ANR |
| Butyl benzylphthalate | ug/L | - | 1/Year | ANR | ANR | ANR |
| Carbon tetrachloride | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chlordane | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chlorobenzene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chlorodibromomethane | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chloroethane | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chloroform | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chloromethane (Methyl Chloride) | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chromium | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chromium III (Trivalent) | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chromium VI (Hexavalent) | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chrysene | ug/L | - | 1/Year | ANR | ANR | ANR |
| cis-1,3-Dichloropropene | ug/L | - | 1/Year | ANR | ANR | ANR |
| delta-BHC | ug/L | - | 1/Year | ANR | ANR | ANR |
| Dibenzo(a,h)anthracene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Dichlorobromomethane | ug/L | - | 1/Year | ANR | ANR | ANR |
| Dieldrin | ug/L | - | 1/Year | ANR | ANR | ANR |
| Diethyl phthalate | ug/L | - | 1/Year | ANR | ANR | ANR |

OUTFALL 008
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | 12/21/2023 12:00 - 12/22/2023 09:00 | | |
|--|-----------|----------------------------|-----------------------|-------------------------------------|-----------|----------------------------------|
| | | | | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Dimethyl phthalate | ug/L | - | 1/Year | ANR | ANR | ANR |
| Di-n-butyl phthalate | ug/L | - | 1/Year | ANR | ANR | ANR |
| Di-n-octyl phthalate | ug/L | - | 1/Year | ANR | ANR | ANR |
| Endosulfan sulfate | ug/L | - | 1/Year | ANR | ANR | ANR |
| Endrin | ug/L | - | 1/Year | ANR | ANR | ANR |
| Endrin aldehyde | ug/L | - | 1/Year | ANR | ANR | ANR |
| Ethylbenzene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Fluoranthene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Fluorene | ug/L | - | 1/Year | ANR | ANR | ANR |
| gamma-BHC (Lindane) | ug/L | - | 1/Year | ANR | ANR | ANR |
| Heptachlor | ug/L | - | 1/Year | ANR | ANR | ANR |
| Heptachlor epoxide | ug/L | - | 1/Year | ANR | ANR | ANR |
| Hexachlorobenzene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Hexachlorobutadiene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Hexachlorocyclopentadiene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Hexachloroethane | ug/L | - | 1/Year | ANR | ANR | ANR |
| Indeno(1,2,3-cd)pyrene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Isophorone | ug/L | - | 1/Year | ANR | ANR | ANR |
| m,p-Xylenes | ug/L | - | 1/Year | ANR | ANR | ANR |
| Methylene chloride | ug/L | - | 1/Year | ANR | ANR | ANR |
| Naphthalene (VOC) | ug/L | - | 1/Year | ANR | ANR | ANR |
| Naphthalene (SVOC) | ug/L | - | 1/Year | ANR | ANR | ANR |
| Nitrobenzene | ug/L | - | 1/Year | ANR | ANR | ANR |
| N-Nitrosodimethylamine | ug/L | - | 1/Year | ANR | ANR | ANR |
| N-Nitroso-di-n-propylamine | ug/L | - | 1/Year | ANR | ANR | ANR |
| N-Nitrosodiphenylamine | ug/L | - | 1/Year | ANR | ANR | ANR |
| o-Xylene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Pentachlorophenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| Phenanthrene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Phenol | ug/L | - | 1/Year | ANR | ANR | ANR |
| Pyrene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Tetrachloroethene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Toluene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Toxaphene | ug/L | - | 1/Year | ANR | ANR | ANR |
| trans-1,2-Dichloroethene | ug/L | - | 1/Year | ANR | ANR | ANR |
| trans-1,3-Dichloropropene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Trichloroethene | ug/L | - | 1/Year | ANR | ANR | ANR |
| Trichlorofluoromethane | ug/L | - | 1/Year | ANR | ANR | ANR |
| Vinyl chloride | ug/L | - | 1/Year | ANR | ANR | ANR |
| Xylenes (Total) | ug/L | - | 1/Year | ANR | ANR | ANR |
| EFFLUENT MONITORING (NO LIMITATIONS) POLLUTANTS | | | | | | |
| Aluminum | ug/L | - | 1/Year | ANR | ANR | ANR |
| Chlorpyrifos | ug/L | - | 1/Year | ANR | ANR | ANR |
| Diazinon | ug/L | - | 1/Year | ANR | ANR | ANR |
| E. Coli | mpn/100mL | - | 1/Year | ANR | ANR | ANR |
| Hardness (as CaCO3) | mg/L | - | 1/Year | ANR | ANR | ANR |
| Iron | mg/L | - | 1/Year | ANR | ANR | ANR |
| Silver | ug/L | - | 1/Discharge | Composite | ND < 0.23 | U* |
| Total Suspended Solids | mg/L | - | 1/Year ^(x) | Composite | 6.2 | * |
| Vanadium | ug/L | - | 1/Year | ANR | ANR | ANR |
| ADDITIONAL POLLUTANTS⁽²⁾ | | | | | | |
| Aluminum, dissolved | ug/L | - | Additional/Year | ANR | ANR | ANR |
| Antimony, dissolved | ug/L | - | Additional/Discharge | Composite | 1.2 | J (DNQ*) |
| Arsenic, dissolved | ug/L | - | Additional/Year | ANR | ANR | ANR |
| Beryllium, dissolved | ug/L | - | Additional/Year | ANR | ANR | ANR |
| Boron, dissolved | mg/L | - | Additional/Year | ANR | ANR | ANR |
| Cadmium, dissolved | ug/L | - | Additional/Discharge | Composite | ND < 0.13 | U* |
| Chromium, dissolved | ug/L | - | Additional/Year | ANR | ANR | ANR |

OUTFALL 008
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | 12/21/2023 12:00 - 12/22/2023 09:00 | | |
|--------------------------------|-----------|----------------------------|----------------------|-------------------------------------|-----------|----------------------------------|
| | | | | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Copper, dissolved | ug/L | - | Additional/Discharge | Composite | 1.8 | J (DNQ*) |
| Hardness, Dissolved (as CaCO3) | mg/L | - | Additional/Year | ANR | ANR | ANR |
| Human Bacteroides | CEs/100mL | - | Additional/Year | ANR | ANR | ANR |
| Iron, dissolved | mg/L | - | Additional/Year | ANR | ANR | ANR |
| Lead, dissolved | ug/L | - | Additional/Discharge | Composite | 0.15 | J (DNQ*) |
| Mercury, dissolved | ug/L | - | Additional/Discharge | Composite | ND < 0.12 | U* |
| Nickel, dissolved | ug/L | - | Additional/Discharge | Composite | 1.2 | J (DNQ*) |
| Selenium, dissolved | ug/L | - | Additional/Discharge | Composite | ND < 0.52 | U* |
| Silver, dissolved | ug/L | - | Additional/Discharge | Composite | ND < 0.23 | U* |
| Thallium, dissolved | ug/L | - | Additional/Discharge | Composite | ND < 0.11 | U* |
| Vanadium, dissolved | ug/L | - | Additional/Year | ANR | ANR | ANR |
| Zinc, dissolved | ug/L | - | Additional/Discharge | Composite | 4.7 | J (DNQ*) |

**OUTFALL 008
DISCHARGE MONITORING DATA SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

October 1 through December 31, 2023

| ANALYTE | SAMPLE FREQUENCY | 1998 WHO TEF | BEF GREAT LAKES WATER QUALITY INITIATIVE | UNITS | 12/22/2023 09:00 (Composite) | | | |
|---------------------|------------------|--------------|--|-------|------------------------------|------------|----------------------------------|------------------------------------|
| | | | | | LAB MDL | LAB RESULT | LABORATORY/ VALIDATION QUALIFIER | TCDD EQUIVALENT (w/out DNQ Values) |
| 1,2,3,4,6,7,8-HpCDD | 1/Discharge | 0.01 | 0.05 | µg/L | 3.0E-07 | 4.4E-06 | U (B) | ND |
| 1,2,3,4,6,7,8-HpCDF | 1/Discharge | 0.01 | 0.01 | µg/L | 3.3E-07 | 3.5E-06 | U (B) | ND |
| 1,2,3,4,7,8,9-HpCDF | 1/Discharge | 0.01 | 0.4 | µg/L | 3.3E-07 | 1.4E-06 | J (DNQ) | ND |
| 1,2,3,4,7,8-HxCDD | 1/Discharge | 0.1 | 0.3 | µg/L | 2.6E-07 | 1.4E-06 | J (DNQ) | ND |
| 1,2,3,4,7,8-HxCDF | 1/Discharge | 0.1 | 0.08 | µg/L | 3.4E-07 | 2.8E-06 | J (DNQ) | ND |
| 1,2,3,6,7,8-HxCDD | 1/Discharge | 0.1 | 0.1 | µg/L | 2.7E-07 | ND | U | ND |
| 1,2,3,6,7,8-HxCDF | 1/Discharge | 0.1 | 0.2 | µg/L | 2.9E-07 | 8.7E-07 | UJ (*III) | ND |
| 1,2,3,7,8,9-HxCDD | 1/Discharge | 0.1 | 0.1 | µg/L | 2.5E-07 | ND | U | ND |
| 1,2,3,7,8,9-HxCDF | 1/Discharge | 0.1 | 0.6 | µg/L | 2.5E-07 | 7.2E-07 | UJ (*III) | ND |
| 1,2,3,7,8-PeCDD | 1/Discharge | 1.0 | 0.9 | µg/L | 3.4E-07 | ND | U | ND |
| 1,2,3,7,8-PeCDF | 1/Discharge | 0.05 | 0.2 | µg/L | 2.5E-07 | 1.1E-06 | J (DNQ) | ND |
| 2,3,4,6,7,8-HxCDF | 1/Discharge | 0.1 | 0.7 | µg/L | 2.5E-07 | ND | U | ND |
| 2,3,4,7,8-PeCDF | 1/Discharge | 0.5 | 1.6 | µg/L | 2.8E-07 | ND | U | ND |
| 2,3,7,8-TCDD | 1/Discharge | 1.0 | 1.0 | µg/L | 4.8E-07 | ND | U | ND |
| 2,3,7,8-TCDF | 1/Discharge | 0.1 | 0.8 | µg/L | 3.5E-07 | ND | U | ND |
| OCDD | 1/Discharge | 0.0001 | 0.01 | µg/L | 7.8E-07 | 2.7E-05 | U (B) | ND |
| OCDF | 1/Discharge | 0.0001 | 0.02 | µg/L | 5.5E-07 | 7.8E-06 | U (B) | ND |

| | |
|--|-----------|
| TCDD TEQ w/out DNQ Values⁽⁴⁾ | ND |
|--|-----------|

TCDD TEQ (PRIORITY POLLUTANTS) PERMIT LIMIT = 2.8E-08

OUTFALL 008
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | 12/22/2023 09:00 (Composite) | | |
|---|-------|----------------------------|------------------|------------------------------|-------|----------------------------------|
| | | | | RESULT | MDA | LABORATORY/ VALIDATION QUALIFIER |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Gross Alpha | pCi/L | 15 | 1/Discharge | 1.91 ± 0.847 | 0.956 | * |
| Gross Beta | pCi/L | 50 | 1/Discharge | 1.33 ± 0.696 | 0.981 | * |
| Combined Radium-226 & Radium-228 | pCi/L | 5.0 | 1/Discharge | 0.702 ± 0.384 | NM | U |
| Strontium-90 | pCi/L | 8.0 | 1/Discharge | 0.0867 ± 0.227 | 0.394 | U* |
| Tritium | pCi/L | 20,000 | 1/Discharge | 19.8 ± 165 | 292 | U* |
| ADDITIONAL POLLUTANTS | | | | | | |
| Cesium-137 | pCi/L | 200 | 1/Discharge | -1.17 ± 12.5 | 15.4 | U* |
| Uranium | pCi/L | 20 | 1/Discharge | 0.186 ± 0.208 | 0.272 | U* |
| ADDITIONAL POLLUTANTS WITHOUT LIMITS | | | | | | |
| Potassium-40 | pCi/L | - | 1/Discharge | -88.6 ± 170 | 219 | U* |

OUTFALL 008
DISCHARGE MONITORING MASS SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| | | | | 12/21/2023 12:00 - 12/22/2023 09:00 | | |
|--|---------|----------------------------|------------------|-------------------------------------|-------------------------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Flow** | MGD | 7.21 | 1/Discharge | Meas | 0.011 | * |
| CONVENTIONAL POLLUTANTS | | | | | | |
| Oil & Grease | LBS/DAY | 902 | 1/Discharge | Grab | ND | U* |
| PRIORITY POLLUTANTS | | | | | | |
| Antimony | LBS/DAY | 0.36 | 1/Discharge | Composite | 0.0004 | * |
| Cadmium | LBS/DAY | (0.24) 0.19 | 1/Discharge | Composite | 0.000016 ^(b) | J (DNQ*) |
| Copper | LBS/DAY | 0.84 | 1/Discharge | Composite | 0.00012 | J (DNQ*) |
| Cyanide | LBS/DAY | 0.57 | 1/Discharge | Composite | ND | U* |
| Lead | LBS/DAY | 0.31 | 1/Discharge | Composite | 0.00006 | J (DNQ*) |
| Mercury | LBS/DAY | 0.008 | 1/Discharge | Composite | ND | U* |
| Nickel | LBS/DAY | 5.2 | 1/Discharge | Composite | 0.00017 | J (DNQ*) |
| Selenium | LBS/DAY | 0.3 | 1/Discharge | Composite | ND | U* |
| TCDD TEQ _{NoDNQ} ⁽⁴⁾ | LBS/DAY | 1.7E-09 | 1/Discharge | Composite | ND | U* |
| Thallium | LBS/DAY | 0.12 | 1/Discharge | Composite | 0.000017 | J (DNQ*) |
| Zinc | LBS/DAY | 7.22 | 1/Discharge | Composite | 0.00051 | J (DNQ*) |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Ammonia - N | LBS/DAY | 607.3 | 1/Discharge | Composite | 0.0039 | J (DNQ*) |
| Boron | LBS/DAY | 60 | 1/Year | ANR | ANR | ANR |
| Chloride | LBS/DAY | 9,020 | 1/Discharge | Composite | 0.23 | * |
| Fluoride | LBS/DAY | 96.2 | 1/Year | ANR | ANR | ANR |
| Nitrate - N | LBS/DAY | 481 | 1/Discharge | Composite | 0.059 | * |
| Nitrate + Nitrite as Nitrogen (N) | LBS/DAY | 481 | 1/Discharge | Composite | 0.059 | * |
| Nitrite - N | LBS/DAY | 60 | 1/Discharge | Composite | ND | U* |
| Perchlorate | LBS/DAY | 0.36 | 1/Discharge | Composite | ND | U* |
| Sulfate | LBS/DAY | 18,039 | 1/Discharge | Composite | 0.16 | * |
| Total Dissolved Solids | LBS/DAY | 57,124 | 1/Discharge | Composite | 5.8 | * |

**OUTFALL 009
DISCHARGE MONITORING DATA SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

October 1 through December 31, 2023

| 12/21/2023 07:50 - 12/22/2023 08:25 | | | | | | |
|--------------------------------------|---------------------------|----------------------------|---------------------------|-------------|-----------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Flow** | MGD | 64.33 | 1/Discharge | Meas | 0.2613 | * |
| CONVENTIONAL POLLUTANTS | | | | | | |
| Oil & Grease | mg/L | 15 | 1/Discharge | Grab | 0.58 | J (DNQ*) |
| pH (Field) | s.u. | 6.5-8.5 | 1/Discharge | Grab | 7.70 | * |
| PRIORITY POLLUTANTS | | | | | | |
| Antimony | µg/L | 6.0 | 1/Discharge | Composite | 4.3 | * |
| Cadmium | µg/L | 4.0 | 1/Discharge | Composite | 0.36 | J (DNQ*) |
| Copper | µg/L | 13 | 1/Discharge | Composite | 13 | * |
| Cyanide | µg/L | 9.5 | 1/Discharge | Composite | ND < 2.5 | U* |
| Lead | µg/L | 5.2 | 1/Discharge | Composite | 380 | -- |
| Mercury | µg/L | 0.13 | 1/Discharge | Composite | ND < 0.12 | U* |
| Nickel | µg/L | 86 | 1/Discharge | Composite | 13 | * |
| Thallium | µg/L | 2.0 | 1/Discharge | Composite | 0.20 | J (DNQ*) |
| Zinc | µg/L | 120 | 1/Discharge | Composite | 58 | * |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Boron | mg/L | 1.0 | 1/Year | ANR | ANR | ANR |
| Chloride | mg/L | 150 | 1/Discharge | Composite | 2.0 | * |
| Chronic Toxicity | Pass or Fail and % Effect | Pass or % Effect <50 | 1st & 2nd rain event/Year | ANR | ANR | ANR |
| Fluoride | mg/L | 1.6 | 1/Year | ANR | ANR | ANR |
| Nitrate + Nitrite as Nitrogen (N) | mg/L | 10 | 1/Discharge | Composite | 0.79 | * |
| Perchlorate | µg/L | 6.0 | 1/Semiannual | ANR | ANR | ANR |
| Sulfate | mg/L | 250 | 1/Discharge | Composite | 3.4 | * |
| Temperature (Field) | Deg F | 86 | 1/Discharge | Grab | 55.1 | * |
| Total Dissolved Solids | mg/L | 850 | 1/Discharge | Composite | 160 | * |
| REMAINING PRIORITY POLLUTANTS | | | | | | |
| 1,1,1-Trichloroethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,1,2,2-Tetrachloroethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,1,2-Trichloroethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,1-Dichloroethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,1-Dichloroethene | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,2,4-Trichlorobenzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Dichlorobenzene (VOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Dichloroethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Dichloropropane | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,2-Diphenylhydrazine/Azobenzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,3-Dichlorobenzene (VOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,3-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,4-Dichlorobenzene (VOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| 1,4-Dichlorobenzene (SVOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2,4,6-Trichlorophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dichlorophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dimethylphenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dinitrophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2,4-Dinitrotoluene | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2,6-Dinitrotoluene | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2-Chloroethyl vinyl ether | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2-Chloronaphthalene | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2-Chlorophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2-Methyl-4,6-dinitrophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 2-Nitrophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| 3,3'-Dichlorobenzidine | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4,4'-DDD | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4,4'-DDE | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4,4'-DDT | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4-Bromophenyl phenyl ether | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4-Chloro-3-methylphenol | µg/L | - | 1/Year | ANR | ANR | ANR |

OUTFALL 009
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

October 1 through December 31, 2023

| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | 12/21/2023 07:50 - 12/22/2023 08:25 | | |
|---------------------------------|-------|----------------------------|------------------|-------------------------------------|--------|----------------------------------|
| | | | | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| 4-Chlorophenyl phenyl ether | µg/L | - | 1/Year | ANR | ANR | ANR |
| 4-Nitrophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| Acenaphthene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Acenaphthylene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Acrolein | µg/L | - | 1/Year | ANR | ANR | ANR |
| Acrylonitrile | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aldrin | µg/L | - | 1/Year | ANR | ANR | ANR |
| alpha-BHC | µg/L | - | 1/Year | ANR | ANR | ANR |
| alpha-Endosulfan | µg/L | - | 1/Year | ANR | ANR | ANR |
| Anthracene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1016 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1221 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1232 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1242 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1248 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1254 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Aroclor 1260 | µg/L | - | 1/Year | ANR | ANR | ANR |
| Arsenic | µg/L | - | 1/Year | ANR | ANR | ANR |
| Asbestos, >=0.5 um | MFL | - | 1/Year | ANR | ANR | ANR |
| Asbestos, > 10 um only | MFL | - | 1/Year | ANR | ANR | ANR |
| Benzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzidine | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(a)anthracene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(a)pyrene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(b)fluoranthene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(g,h,i)perylene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Benzo(k)fluoranthene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Beryllium | µg/L | - | 1/Year | ANR | ANR | ANR |
| beta-BHC | µg/L | - | 1/Year | ANR | ANR | ANR |
| beta-Endosulfan | µg/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Chloroethoxy) Methane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Chloroethyl) Ether | µg/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Chloroisopropyl) Ether | µg/L | - | 1/Year | ANR | ANR | ANR |
| Bis (2-Ethylhexyl) Phthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Bromoform | µg/L | - | 1/Year | ANR | ANR | ANR |
| Bromomethane (Methyl Bromide) | µg/L | - | 1/Year | ANR | ANR | ANR |
| Butyl benzyolphthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Carbon tetrachloride | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chlordane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chlorobenzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chlorodibromomethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chloroethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chloroform | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chloromethane (Methyl Chloride) | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chromium | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chromium III (Trivalent) | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chromium VI (Hexavalent) | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chrysene | µg/L | - | 1/Year | ANR | ANR | ANR |
| cis-1,3-Dichloropropene | µg/L | - | 1/Year | ANR | ANR | ANR |
| delta-BHC | µg/L | - | 1/Year | ANR | ANR | ANR |
| Dibenzo(a,h)anthracene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Dichlorobromomethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Dieldrin | µg/L | - | 1/Year | ANR | ANR | ANR |
| Diethyl phthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Dimethyl phthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Di-n-butyl phthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Di-n-octyl phthalate | µg/L | - | 1/Year | ANR | ANR | ANR |
| Endosulfan sulfate | µg/L | - | 1/Year | ANR | ANR | ANR |

OUTFALL 009
DISCHARGE MONITORING DATA SUMMARY TABLE

FOURTH QUARTER 2023
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October 1 through December 31, 2023

| 12/21/2023 07:50 - 12/22/2023 08:25 | | | | | | |
|--|-----------|----------------------------|-----------------------|-------------|-----------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Endrin | µg/L | - | 1/Year | ANR | ANR | ANR |
| Endrin aldehyde | µg/L | - | 1/Year | ANR | ANR | ANR |
| Ethylbenzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Fluoranthene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Fluorene | µg/L | - | 1/Year | ANR | ANR | ANR |
| gamma-BHC (Lindane) | µg/L | - | 1/Year | ANR | ANR | ANR |
| Heptachlor | µg/L | - | 1/Year | ANR | ANR | ANR |
| Heptachlor epoxide | µg/L | - | 1/Year | ANR | ANR | ANR |
| Hexachlorobenzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Hexachlorobutadiene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Hexachlorocyclopentadiene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Hexachloroethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Indeno(1,2,3-cd)pyrene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Isophorone | µg/L | - | 1/Year | ANR | ANR | ANR |
| m,p-Xylenes | µg/L | - | 1/Year | ANR | ANR | ANR |
| Methylene chloride | µg/L | - | 1/Year | ANR | ANR | ANR |
| Naphthalene (VOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| Naphthalene (SVOC) | µg/L | - | 1/Year | ANR | ANR | ANR |
| Nitrobenzene | µg/L | - | 1/Year | ANR | ANR | ANR |
| N-Nitrosodimethylamine | µg/L | - | 1/Year | ANR | ANR | ANR |
| N-Nitroso-di-n-propylamine | µg/L | - | 1/Year | ANR | ANR | ANR |
| N-Nitrosodiphenylamine | µg/L | - | 1/Year | ANR | ANR | ANR |
| o-Xylene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Pentachlorophenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| Phenanthrene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Phenol | µg/L | - | 1/Year | ANR | ANR | ANR |
| Pyrene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Tetrachloroethene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Toluene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Toxaphene | µg/L | - | 1/Year | ANR | ANR | ANR |
| trans-1,2-Dichloroethene | µg/L | - | 1/Year | ANR | ANR | ANR |
| trans-1,3-Dichloropropene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Trichloroethene | µg/L | - | 1/Year | ANR | ANR | ANR |
| Trichlorofluoromethane | µg/L | - | 1/Year | ANR | ANR | ANR |
| Vinyl chloride | µg/L | - | 1/Year | ANR | ANR | ANR |
| Xylenes (Total) | µg/L | - | 1/Year | ANR | ANR | ANR |
| EFFLUENT MONITORING (NO LIMITATIONS) POLLUTANTS | | | | | | |
| Aluminum | µg/L | - | 1/Year | ANR | ANR | ANR |
| Chlorpyrifos | µg/L | - | 1/Year | ANR | ANR | ANR |
| Diazinon | µg/L | - | 1/Year | ANR | ANR | ANR |
| E. Coli | mpn/100mL | - | 1/Year | ANR | ANR | ANR |
| Hardness (as CaCO3) | mg/L | - | 1/Year | ANR | ANR | ANR |
| Iron | mg/L | - | 1/Year | ANR | ANR | ANR |
| Selenium | µg/L | - | 1/Discharge | Composite | 2.0 | * |
| Silver | µg/L | - | 1/Discharge | Composite | 0.57 | J (DNQ*) |
| Total Suspended Solids | mg/L | - | 1/Year ⁽³⁾ | Composite | 260 | * |
| Vanadium | µg/L | - | 1/Year | ANR | ANR | ANR |
| ADDITIONAL POLLUTANTS⁽²⁾ | | | | | | |
| Aluminum, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Antimony, dissolved | µg/L | - | Additional/Discharge | Composite | 3.2 | * |
| Arsenic, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Beryllium, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Boron, dissolved | mg/L | - | Additional/Year | ANR | ANR | ANR |
| Cadmium, dissolved | µg/L | - | Additional/Discharge | Composite | ND < 0.13 | U* |
| Chromium, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Copper, dissolved | µg/L | - | Additional/Discharge | Composite | 2.0 | * |
| Hardness, dissolved (as CaCO3) | mg/L | - | Additional/Year | ANR | ANR | ANR |
| Human Bacteroides | CEs/100mL | - | Additional/Year | ANR | ANR | ANR |

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| 12/21/2023 07:50 - 12/22/2023 08:25 | | | | | | |
|-------------------------------------|-------|----------------------------|----------------------|-------------|-----------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Iron, dissolved | mg/L | - | Additional/Year | ANR | ANR | ANR |
| Lead, dissolved | µg/L | - | Additional/Discharge | Composite | 19 | * |
| Mercury, dissolved | µg/L | - | Additional/Discharge | Composite | ND < 0.12 | U* |
| Nickel, dissolved | µg/L | - | Additional/Discharge | Composite | 1.3 | J (DNQ*) |
| Selenium, dissolved | µg/L | - | Additional/Discharge | Composite | ND < 0.52 | U* |
| Silver, dissolved | µg/L | - | Additional/Discharge | Composite | ND < 0.23 | U* |
| Thallium, dissolved | µg/L | - | Additional/Discharge | Composite | ND < 0.11 | U* |
| Vanadium, dissolved | µg/L | - | Additional/Year | ANR | ANR | ANR |
| Zinc, dissolved | µg/L | - | Additional/Discharge | Composite | 3.2 | J (DNQ*) |

OUTFALL 009
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SANTA SUSANA FIELD LABORATORY
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October 1 through December 31, 2023

| 12/22/2023 08:25 (Composite) | | | | | | | | |
|------------------------------|------------------|--------------|--|-------|---------|------------|----------------------------------|------------------------------------|
| ANALYTE | SAMPLE FREQUENCY | 1998 WHO TEF | BEF GREAT LAKES WATER QUALITY INITIATIVE | UNITS | LAB MDL | LAB RESULT | LABORATORY/ VALIDATION QUALIFIER | TCDD EQUIVALENT (w/out DNQ Values) |
| 1,2,3,4,6,7,8-HpCDD | 1/Discharge | 0.01 | 0.05 | µg/L | 3.9E-06 | 1.3E-04 | -- | 6.5E-08 |
| 1,2,3,4,6,7,8-HpCDF | 1/Discharge | 0.01 | 0.01 | µg/L | 6.8E-06 | 3.7E-05 | U (B) | ND |
| 1,2,3,4,7,8,9-HpCDF | 1/Discharge | 0.01 | 0.4 | µg/L | 7.2E-06 | ND | U | ND |
| 1,2,3,4,7,8-HxCDD | 1/Discharge | 0.1 | 0.3 | µg/L | 1.3E-06 | 2.5E-06 | UJ (*III) | ND |
| 1,2,3,4,7,8-HxCDF | 1/Discharge | 0.1 | 0.08 | µg/L | 1.4E-06 | 1.4E-05 | J (DNQ) | ND |
| 1,2,3,6,7,8-HxCDD | 1/Discharge | 0.1 | 0.1 | µg/L | 1.4E-06 | 5.7E-06 | J (DNQ) | ND |
| 1,2,3,6,7,8-HxCDF | 1/Discharge | 0.1 | 0.2 | µg/L | 1.2E-06 | 4.4E-06 | UJ (*III) | ND |
| 1,2,3,7,8,9-HxCDD | 1/Discharge | 0.1 | 0.1 | µg/L | 1.2E-06 | 4.1E-06 | J (DNQ) | ND |
| 1,2,3,7,8,9-HxCDF | 1/Discharge | 0.1 | 0.6 | µg/L | 1.1E-06 | ND | U | ND |
| 1,2,3,7,8-PeCDD | 1/Discharge | 1.0 | 0.9 | µg/L | 5.5E-07 | 7.9E-07 | UJ (*III) | ND |
| 1,2,3,7,8-PeCDF | 1/Discharge | 0.05 | 0.2 | µg/L | 5.0E-07 | 3.9E-06 | J (DNQ) | ND |
| 2,3,4,6,7,8-HxCDF | 1/Discharge | 0.1 | 0.7 | µg/L | 1.2E-06 | 2.4E-06 | UJ (*III) | ND |
| 2,3,4,7,8-PeCDF | 1/Discharge | 0.5 | 1.6 | µg/L | 5.9E-07 | 2.2E-06 | J (DNQ) | ND |
| 2,3,7,8-TCDD | 1/Discharge | 1.0 | 1.0 | µg/L | 6.6E-07 | 1.9E-06 | UJ (*III) | ND |
| 2,3,7,8-TCDF | 1/Discharge | 0.1 | 0.8 | µg/L | 3.9E-07 | ND | U | ND |
| OCDD | 1/Discharge | 0.0001 | 0.01 | µg/L | 8.5E-06 | 2.0E-03 | -- | 2.0E-09 |
| OCDF | 1/Discharge | 0.0001 | 0.02 | µg/L | 2.9E-06 | 6.4E-05 | U (B) | ND |

| | |
|--|---------|
| TCDD TEQ w/out DNQ Values ⁽⁴⁾ | 6.7E-08 |
|--|---------|

TCDD TEQ (PRIORITY POLLUTANTS) PERMIT LIMIT = 2.8E-08

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| | | | | 12/22/2023 08:25 (Composite) | | |
|---|-------|----------------------------|------------------|------------------------------|-------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | RESULT | MDA | LABORATORY/ VALIDATION QUALIFIER |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Gross Alpha | pCi/L | 15 | 1/Discharge | 17.4 ± 4.80 | 4.65 | -- |
| Gross Beta | pCi/L | 50 | 1/Discharge | 13.0 ± 2.19 | 1.69 | * |
| Combined Radium-226 & Radium-228 | pCi/L | 5.0 | 1/Discharge | 0.614 ± 0.884 | NM | -- |
| Strontium-90 | pCi/L | 8.0 | 1/Discharge | -0.131 ± 0.381 | 0.716 | U* |
| Tritium | pCi/L | 20,000 | 1/Discharge | 18.9 ± 171 | 306 | U* |
| ADDITIONAL POLLUTANTS | | | | | | |
| Cesium-137 | pCi/L | 200 | 1/Discharge | 1.45 ± 6.73 | 7.96 | U* |
| Uranium | pCi/L | 20 | 1/Discharge | 1.21 ± 0.536 | 0.255 | -- |
| ADDITIONAL POLLUTANTS WITHOUT LIMITS | | | | | | |
| Potassium-40 | pCi/L | - | 1/Discharge | 107 ± 72.7 | 67.4 | * |

OUTFALL 009
DISCHARGE MONITORING MASS SUMMARY TABLE

FOURTH QUARTER 2023
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NPDES PERMIT CA0001309

October 1 through December 31, 2023

| | | | | 12/21/2023 07:50 - 12/22/2023 08:25 | | |
|------------------------------------|---------|----------------------------|------------------|-------------------------------------|---------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| Flow** | MGD | 64.33 | 1/Discharge | Meas | 0.2613 | * |
| CONVENTIONAL POLLUTANTS | | | | | | |
| Oil & Grease | LBS/DAY | 8,048 | 1/Discharge | Grab | 1.3 | J (DNQ*) |
| PRIORITY POLLUTANTS | | | | | | |
| Antimony | LBS/DAY | 3.22 | 1/Discharge | Composite | 0.0094 | * |
| Cadmium | LBS/DAY | 2.15 | 1/Discharge | Composite | 0.00078 | J (DNQ*) |
| Copper | LBS/DAY | 7 | 1/Discharge | Composite | 0.028 | * |
| Cyanide | LBS/DAY | 5.1 | 1/Discharge | Composite | ND | U* |
| Lead | LBS/DAY | 2.8 | 1/Discharge | Composite | 0.83 | -- |
| Mercury | LBS/DAY | 0.07 | 1/Discharge | Composite | ND | U* |
| Nickel | LBS/DAY | 46.14 | 1/Discharge | Composite | 0.028 | * |
| TCDD TEQ NoDNQ ⁽⁴⁾ | LBS/DAY | 1.5E-08 | 1/Discharge | Composite | 1.5E-10 | * |
| Thallium | LBS/DAY | 1.1 | 1/Discharge | Composite | 0.0004 | J (DNQ*) |
| Zinc | LBS/DAY | 64.4 | 1/Discharge | Composite | 0.13 | * |
| NON-CONVENTIONAL POLLUTANTS | | | | | | |
| Boron | LBS/DAY | 537 | 1/Year | ANR | ANR | ANR |
| Chloride | LBS/DAY | 80,477 | 1/Discharge | Composite | 4 | * |
| Fluoride | LBS/DAY | 858 | 1/Year | ANR | ANR | ANR |
| Nitrate + Nitrite as Nitrogen (N) | LBS/DAY | 5,365 | 1/Discharge | Composite | 1.7 | * |
| Perchlorate | LBS/DAY | 3.22 | 1/Semiannual | ANR | ANR | ANR |
| Sulfate | LBS/DAY | 134,128 | 1/Discharge | Composite | 7.4 | * |
| Total Dissolved Solids | LBS/DAY | 456,034 | 1/Discharge | Composite | 350 | * |

**ARROYO SIMI
DISCHARGE MONITORING DATA SUMMARY TABLE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

October 1 through December 31, 2023

| | | | | 12/21/2023 08:30 | | |
|----------------------------------|-----------|----------------------------|------------------|------------------|------------|----------------------------------|
| ANALYTE | UNITS | DAILY MAXIMUM PERMIT LIMIT | SAMPLE FREQUENCY | SAMPLE TYPE | RESULT | LABORATORY/ VALIDATION QUALIFIER |
| POLLUTANTS WITH LIMITS | | | | | | |
| 4,4'-DDD | µg/L | 0.0014 | 1/Quarter | Grab | ND <0.0044 | U* |
| 4,4'-DDE | µg/L | 0.001 | 1/Quarter | Grab | ND <0.0019 | U* |
| 4,4'-DDT | µg/L | 0.001 | 1/Quarter | Grab | ND <0.0016 | U* |
| Aroclor 1016 | µg/L | 0.0003 | 1/Quarter | Grab | ND <0.044 | U* |
| Aroclor 1221 | µg/L | 0.0003 | 1/Quarter | Grab | ND <0.044 | U* |
| Aroclor 1232 | µg/L | 0.0003 | 1/Quarter | Grab | ND <0.044 | U* |
| Aroclor 1242 | µg/L | 0.0003 | 1/Quarter | Grab | ND <0.044 | U* |
| Aroclor 1248 | µg/L | 0.0003 | 1/Quarter | Grab | ND <0.044 | U* |
| Aroclor 1254 | µg/L | 0.0003 | 1/Quarter | Grab | ND <0.052 | U* |
| Aroclor 1260 | µg/L | 0.0003 | 1/Quarter | Grab | ND <0.052 | U* |
| Chlordane | µg/L | 0.001 | 1/Quarter | Grab | ND <0.026 | U* |
| Chlorpyrifos | µg/L | 0.02 | 1/Quarter | Grab | ND <0.004 | U* |
| Diazinon | µg/L | 0.16 | 1/Quarter | Grab | ND <0.0034 | U* |
| Dieldrin | µg/L | 0.0002 | 1/Quarter | Grab | ND <0.0013 | U* |
| E. coli | mpn/100mL | 235 | 1/Year | ANR | ANR | ANR |
| pH (Field) | s.u. | 6.5-8.5 | 1/Quarter | Grab | 7.85 | * |
| Toxaphene | µg/L | 0.0003 | 1/Quarter | Grab | ND <0.054 | U* |
| POLLUTANTS WITHOUT LIMITS | | | | | | |
| Hardness (as CaCO3) | mg/L | - | 1/Quarter | Grab | 70 | * |
| Priority Pollutants | NA | - | 1/5 Years | ANR | ANR | ANR |
| Temperature (Field) | Deg F | - | 1/Quarter | Grab | 56.6 | * |
| TCDD - Equivalents | µg/L | - | 1/Year | ANR | ANR | ANR |
| Total Suspended Solids | mg/L | - | 1/Year | ANR | ANR | ANR |
| Water Velocity | ft/sec | - | 1/Quarter | Meas | 0.6 | * |

APPENDIX D

**Fourth Quarter 2023 Summary of Permit Limit Exceedances, and/
or Non-Compliance**

**TABLE D
SUMMARY OF PERMIT LIMIT EXCEEDANCES AND/OR NON-COMPLIANCE**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

October 1 through December 31, 2023

| DAILY MAXIMUM BENCHMARK EXCEEDANCES AND/OR NON-COMPLIANCE | | | | | | | |
|---|-------------|-------------|------------------------------|-------------------------------|--------|-------|----------------------------------|
| OUTFALL | SAMPLE DATE | SAMPLE TYPE | ANALYTE | DAILY MAXIMUM BENCHMARK LIMIT | RESULT | UNITS | LABORATORY/ VALIDATION QUALIFIER |
| OUTFALL 001 | 12/22/2023 | Comp | Lead | 5.2 | 9.4 | ug/L | -- |
| OUTFALL 001 | 12/22/2023 | Comp | Iron | 0.3 | 16 | mg/L | -- |
| OUTFALL 001 | 12/22/2023 | Comp | Manganese | 50 | 280 | ug/L | J+ (Q) |
| OUTFALL 002 | 12/31/2023 | Comp | Bis (2-Ethylhexyl) Phthalate | 4 | 12 | ug/L | J- (S*III) |

| DAILY MAXIMUM PERMIT LIMIT EXCEEDANCES AND/OR NON-COMPLIANCE | | | | | | | |
|--|-------------|-------------|----------------------------|------------------------|-------------|-------|----------------------------------|
| OUTFALL | SAMPLE DATE | SAMPLE TYPE | ANALYTE | PERMIT LIMIT DAILY MAX | RESULT | UNITS | LABORATORY/ VALIDATION QUALIFIER |
| OUTFALL 009 | 12/22/2023 | Comp | Gross Alpha ⁽¹⁾ | 15 | 17.4 ± 4.80 | pCi/L | * |
| OUTFALL 009 | 12/22/2023 | Comp | Lead | 5.2 | 380 | ug/L | -- |
| OUTFALL 009 | 12/22/2023 | Comp | TCDD TEQ | 2.8E-08 | 6.7E-08 | ug/L | * |

(1) = Gross Alpha minus total uranium was calculated to be 16.2 ± 4.83 pCi/L, which is indeterminate of the Daily Maximum Benchmark Limit of 15 pCi/L.
Gross Alpha is in compliance based on the annual average at Outfall 009, which is 0.84 ± 0.77 pCi/L.

APPENDIX E

**Fourth Quarter 2023 Analytical Laboratory Reports, Chain of Custody
Forms, and Validation Reports**

APPENDIX E

TABLE OF CONTENTS

| Number | Outfall/Location | Eurofins Calscience Laboratory Report Number | Sampling Date |
|---------------|-------------------------|--|---------------------------------------|
| 1 | Arroyo Simi | 570-165634-1 | December 21, 2023 |
| 2 | Arroyo Simi | 570-165634-2 | December 21, 2023 |
| 3 | Outfall 001 | 570-165913-1 | December 21, 2023 |
| 4 | Outfall 001 | 570-165916-1 | December 22, 2023 |
| 5 | Outfall 001 | 570-165916-2 | December 22, 2023 |
| 6 | Outfall 001 | 570-165916-3 | December 22, 2023 |
| 7 | Outfall 002 | 570-165636-1 | December 21, 2023 |
| 8 | Outfall 002 | 570-165901-1 | December 22, 2023 |
| 9 | Outfall 002 | 570-165901-2 | December 22, 2023 |
| 10 | Outfall 002 | 570-165901-3 | December 22, 2023 |
| 11 | Outfall 002 | 570-165901-4 | December 22, 2023 |
| 12 | Outfall 002 | 570-166495-1 | December 30, 2023 |
| 13 | Outfall 002 | 570-166496-1 | December 31, 2023 |
| 14 | Outfall 002 | 570-166496-2 | December 31, 2023 |
| 15 | Outfall 002 | 570-166496-3 | December 31, 2023 |
| 16 | Outfall 002 | 570-166496-4 | December 31, 2023 |
| 17 | Outfall 008 | 570-165685-1 | December 21, 2023 |
| 18 | Outfall 008 | 570-165909-1 | December 22, 2023 |
| 19 | Outfall 008 | 570-165909-2 | December 22, 2023 |
| 20 | Outfall 008 | 570-165909-3 | December 22, 2023 |
| 21 | Outfall 009 | 570-165632-1 | December 21, 2023 |
| 22 | Outfall 009 | 570-165899-1 | December 22, 2023 |
| 23 | Outfall 009 | 570-165899-2 | December 22, 2023 |
| 24 | Outfall 009 | 570-165899-3 | December 22, 2023 |
| Number | Outfall/Location | Data Usability Summary Reports (Validation Reports) | Sampling Date |
| 25 | Various | NPDES_Q4_DUSR_Level II Radiochemistry and Dioxins, Fourth Quarter 2023 | 21 Decemeber through 31 December 2023 |
| 26 | Various | NPDES_Q4_DUSR_Level IV, Fourth Quarter 2023 | 21 Decemeber through 31 December 2023 |



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

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JOB DESCRIPTION

Boeing NPDES SSFL - Quarterly Arroyo
Simi-Frontier Park - Dry Weather

JOB NUMBER

570-165634-1

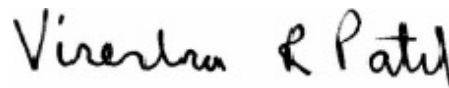
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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1/9/2024 11:05:11 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
SDG: Simi-Frontier Park - Dry Weather

Qualifiers

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| PI | Primary and confirm results varied by > than 40% RPD |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1

Job ID: 570-165634-1

Eurofins Calscience

Job Narrative 570-165634-1

Receipt

The samples were received on 12/21/2023 5:10 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method 200.7 Rev 4.4: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-396657 and analytical batch 570-396968 were outside control limits for Magnesium. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-396381. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 608LL

Method 608: A portion of the following sample was used for analysis, rather than testing the entire sample amount in the original container, due to the sample was prepared using an exact volume as opposed to the volume received:

Arroyo_Simi_20231221_Grab (570-165634-1). As such, the required solvent rinse of the original container could not be performed.

Method 608.3 PEST/PCB

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
SDG: Simi-Frontier Park - Dry Weather

Client Sample ID: Arroyo_Simi_20231221_Grab

Lab Sample ID: 570-165634-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-------------------------------|--------|-----------|-----|------|------|---------|---|----------|-----------|
| Hardness as calcium carbonate | 70 | | 2.0 | 0.42 | mg/L | 1 | | SM 2340C | Total/NA |

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This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
 SDG: Simi-Frontier Park - Dry Weather

Method: EPA 608.3 - Organochlorine Pesticides in Water

Client Sample ID: Arroyo_Simi_20231221_Grab

Date Collected: 12/21/23 08:30

Date Received: 12/21/23 17:10

Lab Sample ID: 570-165634-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Chlordane (technical) | ND | | 0.033 | 0.026 | ug/L | | 12/28/23 12:04 | 01/07/24 18:37 | 1 |
| 4,4'-DDD | ND | | 0.0067 | 0.0044 | ug/L | | 12/28/23 12:04 | 01/07/24 18:37 | 1 |
| 4,4'-DDE | ND | | 0.0033 | 0.0019 | ug/L | | 12/28/23 12:04 | 01/07/24 18:37 | 1 |
| 4,4'-DDT | ND | | 0.0033 | 0.0016 | ug/L | | 12/28/23 12:04 | 01/07/24 18:37 | 1 |
| Dieldrin | ND | | 0.0033 | 0.0013 | ug/L | | 12/28/23 12:04 | 01/07/24 18:37 | 1 |
| Toxaphene | ND | | 0.067 | 0.054 | ug/L | | 12/28/23 12:04 | 01/07/24 18:37 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| <i>Tetrachloro-m-xylene</i> | 32 | PI | 20 - 139 | 12/28/23 12:04 | 01/07/24 18:37 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
 SDG: Simi-Frontier Park - Dry Weather

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: Arroyo_Simi_20231221_Grab
Date Collected: 12/21/23 08:30
Date Received: 12/21/23 17:10

Lab Sample ID: 570-165634-1
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------------------|------------------|------------------|---------------|-------|------|---|-----------------|-----------------|----------------|
| Aroclor 1016 | ND | | 0.10 | 0.044 | ug/L | | 12/28/23 12:04 | 12/29/23 12:57 | 1 |
| Aroclor 1221 | ND | | 0.10 | 0.044 | ug/L | | 12/28/23 12:04 | 12/29/23 12:57 | 1 |
| Aroclor 1232 | ND | | 0.10 | 0.044 | ug/L | | 12/28/23 12:04 | 12/29/23 12:57 | 1 |
| Aroclor 1242 | ND | | 0.10 | 0.044 | ug/L | | 12/28/23 12:04 | 12/29/23 12:57 | 1 |
| Aroclor 1248 | ND | | 0.10 | 0.044 | ug/L | | 12/28/23 12:04 | 12/29/23 12:57 | 1 |
| Aroclor 1254 | ND | | 0.10 | 0.052 | ug/L | | 12/28/23 12:04 | 12/29/23 12:57 | 1 |
| Aroclor 1260 | ND | | 0.10 | 0.052 | ug/L | | 12/28/23 12:04 | 12/29/23 12:57 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| <i>Tetrachloro-m-xylene (Surr)</i> | 48 | | 20 - 139 | | | | 12/28/23 12:04 | 12/29/23 12:57 | 1 |
| <i>DCB Decachlorobiphenyl (Surr)</i> | 37 | | 20 - 154 | | | | 12/28/23 12:04 | 12/29/23 12:57 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
SDG: Simi-Frontier Park - Dry Weather

General Chemistry

Client Sample ID: Arroyo_Simi_20231221_Grab

Date Collected: 12/21/23 08:30

Date Received: 12/21/23 17:10

Lab Sample ID: 570-165634-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Hardness as calcium carbonate (SM 2340C) | 70 | | 2.0 | 0.42 | mg/L | | | 01/04/24 16:40 | 1 |

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Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
SDG: Simi-Frontier Park - Dry Weather

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCX1 (20-139) |
|---------------|---------------------------|------------------|
| 570-165634-1 | Arroyo_Simi_20231221_Grab | 32 PI |

Surrogate Legend

TCX = Tetrachloro-m-xylene

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCX2 (20-139) |
|---------------------|------------------------|------------------|
| LCS 570-396381/2-A | Lab Control Sample | 55 |
| LCSD 570-396381/3-A | Lab Control Sample Dup | 64 |
| MB 570-396381/1-A | Method Blank | 62 |

Surrogate Legend

TCX = Tetrachloro-m-xylene

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCX1 (20-139) | DCB1 (20-154) |
|---------------------|---------------------------|------------------|------------------|
| 570-165634-1 | Arroyo_Simi_20231221_Grab | 48 | 37 |
| LCS 570-396381/4-A | Lab Control Sample | 71 | 65 |
| LCSD 570-396381/5-A | Lab Control Sample Dup | 69 | 67 |
| MB 570-396381/1-A | Method Blank | 75 | 63 |

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)

DCB = DCB Decachlorobiphenyl (Surr)

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
SDG: Simi-Frontier Park - Dry Weather

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-396381/1-A
Matrix: Water
Analysis Batch: 399025

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396381

| Analyte | MB | MB | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Chlordane (technical) | ND | | 0.033 | 0.026 | ug/L | | 12/27/23 13:08 | 01/07/24 07:03 | 1 |
| 4,4'-DDD | ND | | 0.0067 | 0.0044 | ug/L | | 12/27/23 13:08 | 01/07/24 07:03 | 1 |
| 4,4'-DDE | ND | | 0.0033 | 0.0019 | ug/L | | 12/27/23 13:08 | 01/07/24 07:03 | 1 |
| 4,4'-DDT | ND | | 0.0033 | 0.0016 | ug/L | | 12/27/23 13:08 | 01/07/24 07:03 | 1 |
| Dieldrin | ND | | 0.0033 | 0.0013 | ug/L | | 12/27/23 13:08 | 01/07/24 07:03 | 1 |
| Toxaphene | ND | | 0.067 | 0.054 | ug/L | | 12/27/23 13:08 | 01/07/24 07:03 | 1 |

| Surrogate | MB | MB | Limits | Prepared | Analyzed | Dil Fac |
|----------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| Tetrachloro-m-xylene | 62 | | 20 - 139 | 12/27/23 13:08 | 01/07/24 07:03 | 1 |

Lab Sample ID: LCS 570-396381/2-A
Matrix: Water
Analysis Batch: 399025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396381

| Analyte | Spike Added | LCS | LCS | Unit | D | %Rec | %Rec Limits |
|----------|-------------|--------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| 4,4'-DDD | 0.0333 | 0.0193 | | ug/L | | 58 | 31 - 141 |
| 4,4'-DDE | 0.0333 | 0.0174 | | ug/L | | 52 | 30 - 145 |
| 4,4'-DDT | 0.0333 | 0.0190 | | ug/L | | 57 | 25 - 160 |
| Dieldrin | 0.0333 | 0.0183 | | ug/L | | 55 | 36 - 146 |

| Surrogate | LCS | LCS | Limits |
|----------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| Tetrachloro-m-xylene | 55 | | 20 - 139 |

Lab Sample ID: LCSD 570-396381/3-A
Matrix: Water
Analysis Batch: 399025

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 396381

| Analyte | Spike Added | LCSD | LCSD | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|----------|-------------|--------|-----------|------|---|------|-------------|-----|-------|
| | | Result | Qualifier | | | | | | |
| 4,4'-DDD | 0.0333 | 0.0207 | | ug/L | | 62 | 31 - 141 | 7 | 39 |
| 4,4'-DDE | 0.0333 | 0.0189 | | ug/L | | 57 | 30 - 145 | 8 | 35 |
| 4,4'-DDT | 0.0333 | 0.0205 | | ug/L | | 61 | 25 - 160 | 7 | 42 |
| Dieldrin | 0.0333 | 0.0197 | | ug/L | | 59 | 36 - 146 | 8 | 49 |

| Surrogate | LCSD | LCSD | Limits |
|----------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| Tetrachloro-m-xylene | 64 | | 20 - 139 |

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-396381/1-A
Matrix: Water
Analysis Batch: 396687

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396381

| Analyte | MB | MB | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Aroclor 1016 | ND | | 0.10 | 0.044 | ug/L | | 12/27/23 13:08 | 12/28/23 13:08 | 1 |
| Aroclor 1221 | ND | | 0.10 | 0.044 | ug/L | | 12/27/23 13:08 | 12/28/23 13:08 | 1 |
| Aroclor 1232 | ND | | 0.10 | 0.044 | ug/L | | 12/27/23 13:08 | 12/28/23 13:08 | 1 |
| Aroclor 1242 | ND | | 0.10 | 0.044 | ug/L | | 12/27/23 13:08 | 12/28/23 13:08 | 1 |
| Aroclor 1248 | ND | | 0.10 | 0.044 | ug/L | | 12/27/23 13:08 | 12/28/23 13:08 | 1 |

Eurofins Calscience

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
 SDG: Simi-Frontier Park - Dry Weather

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: MB 570-396381/1-A
Matrix: Water
Analysis Batch: 396687

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396381

| Analyte | MB MB | | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-----------|-----------|----------|-------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Aroclor 1254 | ND | | 0.10 | 0.052 | ug/L | | 12/27/23 13:08 | 12/28/23 13:08 | 1 |
| Aroclor 1260 | ND | | 0.10 | 0.052 | ug/L | | 12/27/23 13:08 | 12/28/23 13:08 | 1 |
| Surrogate | MB MB | | Limits | | | D | Prepared | Analyzed | Dil Fac |
| | %Recovery | Qualifier | | | | | | | |
| Tetrachloro-m-xylene (Surr) | 75 | | 20 - 139 | | | | 12/27/23 13:08 | 12/28/23 13:08 | 1 |
| DCB Decachlorobiphenyl (Surr) | 63 | | 20 - 154 | | | | 12/27/23 13:08 | 12/28/23 13:08 | 1 |

Lab Sample ID: LCS 570-396381/4-A
Matrix: Water
Analysis Batch: 396687

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396381

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|-------------------------------|-------------|-----------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Aroclor 1016 | 0.133 | 0.0865 | J,DX | ug/L | | 65 | 50 - 140 |
| Aroclor 1260 | 0.133 | 0.0945 | J,DX | ug/L | | 71 | 8 - 140 |
| Surrogate | LCS LCS | | Limits | | | | |
| | %Recovery | Qualifier | | | | | |
| Tetrachloro-m-xylene (Surr) | 71 | | 20 - 139 | | | | |
| DCB Decachlorobiphenyl (Surr) | 65 | | 20 - 154 | | | | |

Lab Sample ID: LCSD 570-396381/5-A
Matrix: Water
Analysis Batch: 396687

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 396381

| Analyte | Spike Added | LCSD LCSD | | Unit | D | %Rec | %Rec Limits | RPD | |
|-------------------------------|-------------|-----------|-----------|------|---|------|-------------|-----|-------|
| | | Result | Qualifier | | | | | RPD | Limit |
| Aroclor 1016 | 0.133 | 0.0846 | J,DX | ug/L | | 63 | 50 - 140 | 2 | 36 |
| Aroclor 1260 | 0.133 | 0.0956 | J,DX | ug/L | | 72 | 8 - 140 | 1 | 38 |
| Surrogate | LCSD LCSD | | Limits | | | | | | |
| | %Recovery | Qualifier | | | | | | | |
| Tetrachloro-m-xylene (Surr) | 69 | | 20 - 139 | | | | | | |
| DCB Decachlorobiphenyl (Surr) | 67 | | 20 - 154 | | | | | | |

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 570-398528/1
Matrix: Water
Analysis Batch: 398528

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB MB | | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Hardness as calcium carbonate | ND | | 2.0 | 0.42 | mg/L | | | 01/04/24 16:40 | 1 |

Lab Sample ID: LCS 570-398528/2
Matrix: Water
Analysis Batch: 398528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|-------------------------------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Hardness as calcium carbonate | 10.0 | 9.60 | | mg/L | | 96 | 90 - 110 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
 SDG: Simi-Frontier Park - Dry Weather

Method: SM 2340C - Hardness, Total (mg/l as CaCO3) (Continued)

Lab Sample ID: LCS 570-398528/4
Matrix: Water
Analysis Batch: 398528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Hardness as calcium carbonate | 100 | 102 | | mg/L | | 102 | 90 - 110 |

Lab Sample ID: LCSD 570-398528/3
Matrix: Water
Analysis Batch: 398528

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Hardness as calcium carbonate | 10.0 | 9.60 | | mg/L | | 96 | 90 - 110 | 0 | 10 |

Lab Sample ID: LCSD 570-398528/5
Matrix: Water
Analysis Batch: 398528

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Hardness as calcium carbonate | 100 | 102 | | mg/L | | 102 | 90 - 110 | 0 | 10 |



QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
SDG: Simi-Frontier Park - Dry Weather

GC Semi VOA

Prep Batch: 396381

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|---------------------------|-----------|--------|--------|------------|
| 570-165634-1 | Arroyo_Simi_20231221_Grab | Total/NA | Water | 608 | |
| MB 570-396381/1-A | Method Blank | Total/NA | Water | 608 | |
| LCS 570-396381/2-A | Lab Control Sample | Total/NA | Water | 608 | |
| LCS 570-396381/4-A | Lab Control Sample | Total/NA | Water | 608 | |
| LCSD 570-396381/3-A | Lab Control Sample Dup | Total/NA | Water | 608 | |
| LCSD 570-396381/5-A | Lab Control Sample Dup | Total/NA | Water | 608 | |

Analysis Batch: 396687

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| MB 570-396381/1-A | Method Blank | Total/NA | Water | 608.3 | 396381 |
| LCS 570-396381/4-A | Lab Control Sample | Total/NA | Water | 608.3 | 396381 |
| LCSD 570-396381/5-A | Lab Control Sample Dup | Total/NA | Water | 608.3 | 396381 |

Analysis Batch: 397151

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|---------------------------|-----------|--------|--------|------------|
| 570-165634-1 | Arroyo_Simi_20231221_Grab | Total/NA | Water | 608.3 | 396381 |

Analysis Batch: 399025

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| MB 570-396381/1-A | Method Blank | Total/NA | Water | 608.3 | 396381 |
| LCS 570-396381/2-A | Lab Control Sample | Total/NA | Water | 608.3 | 396381 |
| LCSD 570-396381/3-A | Lab Control Sample Dup | Total/NA | Water | 608.3 | 396381 |

Analysis Batch: 399037

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|---------------------------|-----------|--------|--------|------------|
| 570-165634-1 | Arroyo_Simi_20231221_Grab | Total/NA | Water | 608.3 | 396381 |

General Chemistry

Analysis Batch: 398528

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|---------------------------|-----------|--------|----------|------------|
| 570-165634-1 | Arroyo_Simi_20231221_Grab | Total/NA | Water | SM 2340C | |
| MB 570-398528/1 | Method Blank | Total/NA | Water | SM 2340C | |
| LCS 570-398528/2 | Lab Control Sample | Total/NA | Water | SM 2340C | |
| LCS 570-398528/4 | Lab Control Sample | Total/NA | Water | SM 2340C | |
| LCSD 570-398528/3 | Lab Control Sample Dup | Total/NA | Water | SM 2340C | |
| LCSD 570-398528/5 | Lab Control Sample Dup | Total/NA | Water | SM 2340C | |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
 SDG: Simi-Frontier Park - Dry Weather

Client Sample ID: Arroyo_Simi_20231221_Grab

Lab Sample ID: 570-165634-1

Date Collected: 12/21/23 08:30

Matrix: Water

Date Received: 12/21/23 17:10

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|------------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Prep | 608 | | | 1500 mL | 1 mL | 396381 | 12/28/23 12:04 | OAJ3 | EET CAL 4 |
| Total/NA | Analysis | 608.3 | | 1 | 1 mL | 1 mL | 399037 | 01/07/24 18:37 | N5Y3 | EET CAL 4 |
| Instrument ID: GC54A | | | | | | | | | | |
| Total/NA | Prep | 608 | | | 1500 mL | 1 mL | 396381 | 12/28/23 12:04 | OAJ3 | EET CAL 4 |
| Total/NA | Analysis | 608.3 | | 1 | 1 mL | 1 mL | 397151 | 12/29/23 12:57 | OM8W | EET CAL 4 |
| Instrument ID: GC81A | | | | | | | | | | |
| Total/NA | Analysis | SM 2340C | | 1 | 50 mL | 50 mL | 398528 | 01/04/24 16:40 | U7UR | EET CAL 4 |
| Instrument ID: NOEQUIP | | | | | | | | | | |

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
SDG: Simi-Frontier Park - Dry Weather

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|------------|---|-----------------------|-----------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |



Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
SDG: Simi-Frontier Park - Dry Weather

| Method | Method Description | Protocol | Laboratory |
|----------|--|----------|------------|
| 608.3 | Organochlorine Pesticides in Water | EPA | EET CAL 4 |
| 608.3 | Polychlorinated Biphenyls (PCBs) (GC) | EPA | EET CAL 4 |
| SM 2340C | Hardness, Total (mg/l as CaCO ₃) | SM | EET CAL 4 |
| 608 | Liquid-Liquid Extraction (Separatory Funnel) | EPA | EET CAL 4 |

Protocol References:

EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-1
SDG: Simi-Frontier Park - Dry Weather

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|---------------------------|--------|----------------|----------------|
| 570-165634-1 | Arroyo_Simi_20231221_Grab | Water | 12/21/23 08:30 | 12/21/23 17:10 |

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165634

WGP

CHAIN OF CUSTODY FORM

| | | | | | | | | | | | | | | | | | | |
|---|---------------------------------|--------------------------|---------------|--|------------|------------------|----------|--------|--|---|------------------------|----------------|-----------------------------|---|--|--|---|--|
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | | | Project: Boeing-SSFL NPDES Permit 2015 Quarterly Arroyo Simi-Frontier Park Dry Weather | | | | | ANALYSIS REQUIRED | | | Field Readings | Meter serial # <u>15RA2</u> | | | | | |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | | | | | | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | | Hardness as CaCO ₃ , Recoverable (SM2340B) Chlorpyrifos, Diazinon (E525.2) Weck Labs in Hacienda Heights, CA Pesticides: Chlordane, 4,4-DDD, 4,4-DDE, 4,4-DDT, Dieldrin, Toxaphene + PCBs only (E808) | | | Field Readings: (Include units) Time of Readings: <u>0825</u> | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | | | | | | | | | | | | | | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | |
| Sampler: Mark Dominick | | | | Field readings QC | | | | | Checked by: <u>[Signature]</u> | | Date/Time: <u>0825</u> | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | | | | | | | Comments | | | |
| Arroyo Simi | Arroyo_Simi_20231221_Grab | 12/21/2023 / <u>0930</u> | WS | 250 mL Poly | 1 | HNO ₃ | 100 | No | X | | | | | | | | | |
| | | | WS | 1L Glass Amber | 2 | None | 275 | No | | X | | | | | Extract within 24-Hours of sampling at Weck Labs | | | |
| | | | WS | 1L Glass Amber | 2 | None | 285 | No | | | X | | | | | | | |
| | Arroyo_Simi_20231221_Grab_Extra | 12/21/2023 / <u>0830</u> | WS | 1L Glass Amber | 2 | None | 275 | No | | H | | | | | Hold | | | |
| | | | WS | 1L Glass Amber | 2 | None | 285 | No | | | H | | | | Hold | | | |



570-165634 Chain of Custody

Legend: Q=Quarterly

| | | | | | |
|-------------------------------------|-----------------------------------|---------------------|---------------------------------|---------------------------------|--|
| Relinquished By: <u>[Signature]</u> | Date/Time: <u>12-21-23 / 1310</u> | Company: <u>H.A</u> | Received By: <u>[Signature]</u> | Date/Time: <u>12/21/23 1310</u> | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <u>X</u> 48 Hour: _____ 5 Day: _____ Normal: _____ Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <u>X</u> |
| Relinquished By: <u>[Signature]</u> | Date/Time: <u>12/21/23 1710</u> | Company: _____ | Received By: <u>[Signature]</u> | Date/Time: <u>12/21/23 1710</u> | |
| Relinquished By: _____ | Date/Time: _____ | Company: _____ | Received By: _____ | Date/Time: _____ | |

1.5/1.9 sc14

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165634-1
SDG Number: Simi-Frontier Park - Dry Weather

Login Number: 165634

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 2/1/2024 7:55:11 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Quarterly Arroyo
Simi-Frontier Park - Dry Weather

JOB NUMBER

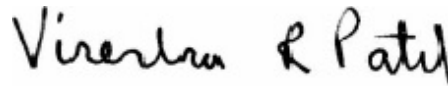
570-165634-2

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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2/1/2024 7:55:11 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-2
SDG: Simi-Frontier Park - Dry Weather

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-2

Job ID: 570-165634-2

Eurofins Calscience

Job Narrative 570-165634-2

Receipt

The samples were received on 12/21/2023 5:10 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9° C.

Lab Admin

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work

Method Weck- 525.2 - Diazinon and Chlorpyrifos (ug/L units): This method was subcontracted to Weck Laboratories, Inc. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.



Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-2
SDG: Simi-Frontier Park - Dry Weather

Client Sample ID: Arroyo_Simi_20231221_Grab

Lab Sample ID: 570-165634-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Calscience

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-2
SDG: Simi-Frontier Park - Dry Weather

| Method | Method Description | Protocol | Laboratory |
|-------------|--|----------|------------|
| Subcontract | Weck- 525.2 - Diazinon and Chlorpyrifos (ug/L units) | None | Weck Lab |

Protocol References:

None = None

Laboratory References:

Weck Lab = Weck Laboratories, Inc., 14859 East Clark Avenue, City of Industry, CA 917451396



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Quarterly Arroyo

Job ID: 570-165634-2
SDG: Simi-Frontier Park - Dry Weather

| <u>Lab Sample ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Collected</u> | <u>Received</u> |
|----------------------|---------------------------|---------------|------------------|-----------------|
| 570-165634-1 | Arroyo_Simi_20231221_Grab | Water | 12/21/23 08:30 | 12/21/23 17:10 |

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Work Orders: 3L21106

Project: 570-165634-2

Attn: Virendra Patel

Client: Eurofins Environment Testing Southwest, LLC
2841 Dow Avenue, Suite 100
Tustin, CA 92780

Report Date: 1/17/2024

Received Date: 12/21/2023

Turnaround Time: Normal

Phones: (949) 261-1022

Fax: (949) 260-3297

P.O. #:

Billing Code:

Dear Virendra Patel,

Enclosed are the results of analyses for samples received 12/21/23 with the Chain-of-Custody document. The samples were received in good condition, at 3.1 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample: Arroyo_Simi_20231221_Grab (570-165634-1)

Sampled: 12/21/23 8:30 by Client

3L21106-01 (Water)

| Analyte | Result | MDL | MRL | Units | Dil | Analyzed | Qualifier |
|-----------------------------|--------|-----------------------------------|----------------------|-----------|---------------------------------|----------|---------------------|
| Method: EPA 525.2M | | | Instr: GCMS13 | | | | |
| Batch ID: W3L2083 | | Preparation: EPA 525.2/SPE | | | Prepared: 12/28/23 08:07 | | Analyst: ajc |
| Chlorpyrifos | ND | 4.0 | 10 | ng/l | 1 | 01/06/24 | |
| Diazinon | ND | 3.4 | 10 | ng/l | 1 | 01/06/24 | |
| <i>Surrogate(s)</i> | | | | | | | |
| 1,3-Dimethyl-2-nitrobenzene | 73% | | 50-141 | Conc: 366 | | 01/06/24 | |
| Triphenyl phosphate | 111% | | 63-200 | Conc: 553 | | 01/06/24 | |

Quality Control Results

Semivolatiles Organics - Low Level by Tandem GC/MS/MS

| Analyte | Result | MDL | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Qualifier |
|-------------------------------|--------|-----|-----|-------|--|---------------|------|-------------|-----|-----------|-----------|
| Blank (W3L2083-BLK1) | | | | | Prepared: 12/28/23 Analyzed: 01/06/24 | | | | | | |
| Chlorpyrifos | ND | 4.0 | 10 | ng/l | | | | | | | |
| Diazinon | ND | 3.4 | 10 | ng/l | | | | | | | |
| <i>Surrogate(s)</i> | | | | | | | | | | | |
| 1,3-Dimethyl-2-nitrobenzene | 410 | | | ng/l | 500 | | 82 | 50-141 | | | |
| Triphenyl phosphate | 740 | | | ng/l | 500 | | 148 | 63-200 | | | |
| LCS (W3L2083-BS1) | | | | | Prepared: 12/28/23 Analyzed: 01/06/24 | | | | | | |
| Chlorpyrifos | 49.7 | 4.0 | 10 | ng/l | 50.0 | | 99 | 63-145 | | | |
| Diazinon | 35.1 | 3.4 | 10 | ng/l | 50.0 | | 70 | 25-180 | | | |
| <i>Surrogate(s)</i> | | | | | | | | | | | |
| 1,3-Dimethyl-2-nitrobenzene | 330 | | | ng/l | 500 | | 66 | 50-141 | | | |
| Triphenyl phosphate | 724 | | | ng/l | 500 | | 145 | 63-200 | | | |
| LCS Dup (W3L2083-BSD1) | | | | | Prepared: 12/28/23 Analyzed: 01/06/24 | | | | | | |
| Chlorpyrifos | 53.6 | 4.0 | 10 | ng/l | 50.0 | | 107 | 63-145 | 8 | 30 | |
| Diazinon | 39.1 | 3.4 | 10 | ng/l | 50.0 | | 78 | 25-180 | 11 | 30 | |
| <i>Surrogate(s)</i> | | | | | | | | | | | |
| 1,3-Dimethyl-2-nitrobenzene | 387 | | | ng/l | 500 | | 77 | 50-141 | | | |
| Triphenyl phosphate | 580 | | | ng/l | 500 | | 116 | 63-200 | | | |

Notes and Definitions

| Item | Definition |
|------|--|
| %REC | Percent Recovery |
| Dil | Dilution |
| MDL | Method Detection Limit |
| MRL | The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) |
| ND | NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL. |
| RPD | Relative Percent Difference |

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

Reviewed by:



Ryan J. Gasio
Project Manager



ELAP-CA #1132 • EPA-UCMR #CA00211 • LACSD #10143

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

3L2106

ICOC No:
570-333476

Containers

| <u>Count</u> | <u>Container Type</u> | <u>Preservative</u> |
|--------------|-----------------------------------|---------------------|
| 4 | Amber Glass 1 liter - unpreserved | None |

Subcontract Method Instructions

| Sample IDs | Method | Method Description | Method Comments |
|------------|-------------|---|---|
| 1 | SUBCONTRACT | SUB (Weck- 525.2 - Diazinon and Chlorpyrifos (ug/L units)) | 525.2- 24 hour Ext Hold Time for Diazinon and Chlorpyrifos level IV package needed. |
| 2 | SUBCONTRACT | SUB (Weck- 525.2 - Diazinon and Chlorpyrifos (ug/L units)) (Hold) | 525.2- 24 hour Ext Hold Time for Diazinon and Chlorpyrifos level IV package needed. |





Sample Receipt Checklist

Weck WKO: 3L21106 Date/Time Received: 12/21/23 @ 15:00
 WKO Logged by: Jerico Bolotano # of Samples: 02
 Samples Checked by: Jerico Bolotano Delivered by: Client

| Task | Yes | No | N/A | Comments |
|---|-------------------------------------|-------------------------------------|-------------------------------------|--|
| COC present at receipt? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| COC properly completed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| COC matches sample labels? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Project Manager notified about COC discrepancy? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Sample Temperature | | | | 3.1°C |
| Samples received on ice? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Ice Type (Blue/Wet) | | | | Wet |
| All samples intact? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Samples in proper containers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Sufficient sample volume? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Samples intact? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Received within holding time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Project Manager notified about receipt info? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Sample labels checked for correct preservation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| VOC Headspace: (No) none, if Yes (see comment) 524.2, 524.3, 624.1, 8260, 1666 P/T, LUFT | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <6mm/Pea Size? |
| pH verified upon receipt? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | pH paper Lot# 3082367 |
| Metals <2; H2SO4 pres tests <2; 522<4; TOC <2; 508.1, 525.2<2, 6710B<2, 608.3 5-9 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | CI Test Strip Lot# 11032201 |
| Free Chlorine Tested <0.1 (Organics Analyses) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| O&G pH <2 verified? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | pH paper Lot# |
| pH adjusted for O&G | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | pH Reading: |
| Project Manager notified about sample preservation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Acid Lot# |
| | | | | Amt added: |

PM Comments

Sample Receipt Checklist Completed by:

Signature: *Lester Abad*

Date: 12/21/23



165634

WGP

CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | | | Project: Boeing-SSFL NPDES Permit 2015 Quarterly Arroyo Simi-Frontier Park Dry Weather | | | | | ANALYSIS REQUIRED | | | Field Readings | Meter serial # <u>15222</u> | | | | | |
|---|---------------------------------|--------------------|---------------|--|------------|------------------|----------|--------|--|---|------------------------|----------------|-----------------------------|---|--|--|---|--|
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | | | | | | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | | Hardness as CaCO ₃ , Recoverable (SM2340B) | Chlorpyrifos, Diazinon (E525.2) Weck Labs in Hacienda Heights, CA | Pesticides: Chlordane, 4,4-DDD, 4,4-DDE, 4,4-DDT, Dieldrin, Toxaphene + PCBs only (E808) | Field Readings: (Include units) Time of Readings: <u>0825</u> | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | | | | | | | | | | | | | | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | |
| Sampler: Mark Dominick | | | | Field readings QC | | | | | Checked by: <u>[Signature]</u> | | Date/Time: <u>0825</u> | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | | | | | | Comments | | | | |
| Arroyo Simi | Arroyo_Simi_20231221_Grab | 12/21/2023 / 0930 | WS | 250 mL Poly | 1 | HNO ₃ | 100 | No | X | | | | | | | | | |
| | | | WS | 1L Glass Amber | 2 | None | 275 | No | | X | | | | Extract within 24-Hours of sampling at Weck Labs | | | | |
| | | | WS | 1L Glass Amber | 2 | None | 285 | No | | | X | | | | | | | |
| | Arroyo_Simi_20231221_Grab_Extra | 12/21/2023 / 0830 | WS | 1L Glass Amber | 2 | None | 275 | No | | | H | | | Hold | | | | |
| | | | WS | 1L Glass Amber | 2 | None | 285 | No | | | | H | | Hold | | | | |



570-165634 Chain of Custody

Legend: Q=Quarterly

| | | |
|---|--|--|
| Relinquished By: <u>[Signature]</u> Date/Time: <u>12-21-23 / 1310</u> Company: <u>H.A</u> | Received By: <u>[Signature]</u> Date/Time: <u>12/21/23 1310</u> | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <u>X</u> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <u>[Signature]</u> Date/Time: <u>12/21/23 1710</u> Company: _____ | Received By: <u>[Signature]</u> Date/Time: <u>12/21/23 1710</u> | |
| Sample Integrity: (Check) Intact: _____ On Ice: _____ | | Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <u>X</u> |

1.5/1.9 sc14

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165634-2
SDG Number: Simi-Frontier Park - Dry Weather

Login Number: 165634
List Number: 1
Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |





ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/4/2024 6:14:47 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 001 - Grab

JOB NUMBER

570-165913-1

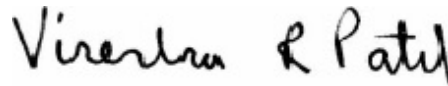
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|---|
| LQ | LCS/LCSD recovery above method control limits |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Job ID: 570-165913-1

Eurofins Calscience

Job Narrative 570-165913-1

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

GC/MS VOA

Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-396044. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 570-396044 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 624.1: The continuing calibration verification (CCV) associated with batch 570-396044 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: Outfall001_20231221_Grab (570-165913-1), TB-20231221 (570-165913-3) and (CCVIS 570-396044/3).

Method 624.1: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following samples were received preserved with hydrochloric acid: Outfall001_20231221_Grab (570-165913-1) and TB-20231221 (570-165913-3). The requested target analyte list contains 2-Chloroethyl vinyl ether and/or Acrolein, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-396701. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 1664A.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Client Sample ID: Outfall001_20231221_Grab

Lab Sample ID: 570-165913-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|------|------|----------|---------|---|----------|-----------|
| Specific Conductance | 120 | | 1.0 | 1.0 | umhos/cm | 1 | | SM 2510B | Total/NA |
| Settleable Solids | 0.10 | | 0.10 | 0.10 | mL/L | 1 | | SM 2540F | Total/NA |

Client Sample ID: TB-20231221

Lab Sample ID: 570-165913-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Client Sample ID: Outfall001_20231221_Grab

Lab Sample ID: 570-165913-1

Date Collected: 12/21/23 13:15

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 12/23/23 14:15 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.20 | ug/L | | | 12/23/23 14:15 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 2.0 | 0.33 | ug/L | | | 12/23/23 14:15 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.17 | ug/L | | | 12/23/23 14:15 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.39 | ug/L | | | 12/23/23 14:15 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.33 | ug/L | | | 12/23/23 14:15 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/23/23 14:15 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.15 | ug/L | | | 12/23/23 14:15 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.17 | ug/L | | | 12/23/23 14:15 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/23/23 14:15 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.11 | ug/L | | | 12/23/23 14:15 | 1 |
| Acrolein | ND | | 5.0 | 4.6 | ug/L | | | 12/23/23 14:15 | 1 |
| Acrylonitrile | ND | | 2.0 | 1.4 | ug/L | | | 12/23/23 14:15 | 1 |
| Benzene | ND | | 0.50 | 0.28 | ug/L | | | 12/23/23 14:15 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.19 | ug/L | | | 12/23/23 14:15 | 1 |
| Bromoform | ND | | 1.0 | 0.25 | ug/L | | | 12/23/23 14:15 | 1 |
| Bromomethane | ND | | 0.50 | 0.22 | ug/L | | | 12/23/23 14:15 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.28 | ug/L | | | 12/23/23 14:15 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.19 | ug/L | | | 12/23/23 14:15 | 1 |
| Chloroethane | ND | | 1.0 | 0.29 | ug/L | | | 12/23/23 14:15 | 1 |
| Chloroform | ND | | 0.50 | 0.19 | ug/L | | | 12/23/23 14:15 | 1 |
| Chloromethane | ND | LQ | 0.50 | 0.30 | ug/L | | | 12/23/23 14:15 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/23/23 14:15 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.30 | ug/L | | | 12/23/23 14:15 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.15 | ug/L | | | 12/23/23 14:15 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 12/23/23 14:15 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.57 | ug/L | | | 12/23/23 14:15 | 1 |
| Naphthalene | ND | | 1.0 | 0.33 | ug/L | | | 12/23/23 14:15 | 1 |
| o-Xylene | ND | | 0.50 | 0.15 | ug/L | | | 12/23/23 14:15 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.17 | ug/L | | | 12/23/23 14:15 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/23/23 14:15 | 1 |
| Toluene | ND | | 0.50 | 0.23 | ug/L | | | 12/23/23 14:15 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.24 | ug/L | | | 12/23/23 14:15 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.18 | ug/L | | | 12/23/23 14:15 | 1 |
| Trichloroethene | ND | | 0.50 | 0.17 | ug/L | | | 12/23/23 14:15 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.29 | ug/L | | | 12/23/23 14:15 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.47 | ug/L | | | 12/23/23 14:15 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.17 | ug/L | | | 12/23/23 14:15 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 107 | | 60 - 140 | | 12/23/23 14:15 | 1 |
| Dibromofluoromethane (Surr) | 108 | | 60 - 140 | | 12/23/23 14:15 | 1 |
| Toluene-d8 (Surr) | 99 | | 60 - 140 | | 12/23/23 14:15 | 1 |

Client Sample ID: TB-20231221

Lab Sample ID: 570-165913-3

Date Collected: 12/21/23 13:15

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 12/23/23 13:53 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.20 | ug/L | | | 12/23/23 13:53 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TB-20231221
Date Collected: 12/21/23 13:15
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165913-3
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 2.0 | 0.33 | ug/L | | | 12/23/23 13:53 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.17 | ug/L | | | 12/23/23 13:53 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.39 | ug/L | | | 12/23/23 13:53 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.33 | ug/L | | | 12/23/23 13:53 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/23/23 13:53 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.15 | ug/L | | | 12/23/23 13:53 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.17 | ug/L | | | 12/23/23 13:53 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/23/23 13:53 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.11 | ug/L | | | 12/23/23 13:53 | 1 |
| Acrolein | ND | | 5.0 | 4.6 | ug/L | | | 12/23/23 13:53 | 1 |
| Acrylonitrile | ND | | 2.0 | 1.4 | ug/L | | | 12/23/23 13:53 | 1 |
| Benzene | ND | | 0.50 | 0.28 | ug/L | | | 12/23/23 13:53 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.19 | ug/L | | | 12/23/23 13:53 | 1 |
| Bromoform | ND | | 1.0 | 0.25 | ug/L | | | 12/23/23 13:53 | 1 |
| Bromomethane | ND | | 0.50 | 0.22 | ug/L | | | 12/23/23 13:53 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.28 | ug/L | | | 12/23/23 13:53 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.19 | ug/L | | | 12/23/23 13:53 | 1 |
| Chloroethane | ND | | 1.0 | 0.29 | ug/L | | | 12/23/23 13:53 | 1 |
| Chloroform | ND | | 0.50 | 0.19 | ug/L | | | 12/23/23 13:53 | 1 |
| Chloromethane | ND | LQ | 0.50 | 0.30 | ug/L | | | 12/23/23 13:53 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/23/23 13:53 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.30 | ug/L | | | 12/23/23 13:53 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.15 | ug/L | | | 12/23/23 13:53 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 12/23/23 13:53 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.57 | ug/L | | | 12/23/23 13:53 | 1 |
| Naphthalene | ND | | 1.0 | 0.33 | ug/L | | | 12/23/23 13:53 | 1 |
| o-Xylene | ND | | 0.50 | 0.15 | ug/L | | | 12/23/23 13:53 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.17 | ug/L | | | 12/23/23 13:53 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/23/23 13:53 | 1 |
| Toluene | ND | | 0.50 | 0.23 | ug/L | | | 12/23/23 13:53 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.24 | ug/L | | | 12/23/23 13:53 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.18 | ug/L | | | 12/23/23 13:53 | 1 |
| Trichloroethene | ND | | 0.50 | 0.17 | ug/L | | | 12/23/23 13:53 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.29 | ug/L | | | 12/23/23 13:53 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.47 | ug/L | | | 12/23/23 13:53 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.17 | ug/L | | | 12/23/23 13:53 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 101 | | 60 - 140 | | | | | 12/23/23 13:53 | 1 |
| Dibromofluoromethane (Surr) | 107 | | 60 - 140 | | | | | 12/23/23 13:53 | 1 |
| Toluene-d8 (Surr) | 99 | | 60 - 140 | | | | | 12/23/23 13:53 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

General Chemistry

Client Sample ID: Outfall001_20231221_Grab

Date Collected: 12/21/23 13:15

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165913-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|--------|-----------|------|------|----------|---|----------------|----------------|---------|
| HEM (Oil & Grease) (1664A) | ND | | 0.99 | 0.50 | mg/L | | 12/28/23 09:50 | 01/02/24 06:56 | 1 |
| Specific Conductance (SM 2510B) | 120 | | 1.0 | 1.0 | umhos/cm | | | 01/02/24 17:01 | 1 |
| Settleable Solids (SM 2540F) | 0.10 | | 0.10 | 0.10 | mL/L | | | 12/23/23 08:10 | 1 |

Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB | DBFM | TOL |
|---------------------|--------------------------|----------|----------|----------|
| | | (60-140) | (60-140) | (60-140) |
| 570-165913-1 | Outfall001_20231221_Grab | 107 | 108 | 99 |
| 570-165913-3 | TB-20231221 | 101 | 107 | 99 |
| LCS 570-396044/1003 | Lab Control Sample | 101 | 103 | 100 |
| LCSD 570-396044/4 | Lab Control Sample Dup | 104 | 102 | 102 |
| MB 570-396044/6 | Method Blank | 107 | 103 | 98 |

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-396044/6
Matrix: Water
Analysis Batch: 396044

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB | MB | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 12/23/23 13:09 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.20 | ug/L | | | 12/23/23 13:09 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 2.0 | 0.33 | ug/L | | | 12/23/23 13:09 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.17 | ug/L | | | 12/23/23 13:09 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.39 | ug/L | | | 12/23/23 13:09 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.33 | ug/L | | | 12/23/23 13:09 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/23/23 13:09 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.15 | ug/L | | | 12/23/23 13:09 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.17 | ug/L | | | 12/23/23 13:09 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/23/23 13:09 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.11 | ug/L | | | 12/23/23 13:09 | 1 |
| Acrolein | ND | | 5.0 | 4.6 | ug/L | | | 12/23/23 13:09 | 1 |
| Acrylonitrile | ND | | 2.0 | 1.4 | ug/L | | | 12/23/23 13:09 | 1 |
| Benzene | ND | | 0.50 | 0.28 | ug/L | | | 12/23/23 13:09 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.19 | ug/L | | | 12/23/23 13:09 | 1 |
| Bromoform | ND | | 1.0 | 0.25 | ug/L | | | 12/23/23 13:09 | 1 |
| Bromomethane | ND | | 0.50 | 0.22 | ug/L | | | 12/23/23 13:09 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.28 | ug/L | | | 12/23/23 13:09 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.19 | ug/L | | | 12/23/23 13:09 | 1 |
| Chloroethane | ND | | 1.0 | 0.29 | ug/L | | | 12/23/23 13:09 | 1 |
| Chloroform | ND | | 0.50 | 0.19 | ug/L | | | 12/23/23 13:09 | 1 |
| Chloromethane | ND | | 0.50 | 0.30 | ug/L | | | 12/23/23 13:09 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/23/23 13:09 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.30 | ug/L | | | 12/23/23 13:09 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.15 | ug/L | | | 12/23/23 13:09 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 12/23/23 13:09 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.57 | ug/L | | | 12/23/23 13:09 | 1 |
| Naphthalene | ND | | 1.0 | 0.33 | ug/L | | | 12/23/23 13:09 | 1 |
| o-Xylene | ND | | 0.50 | 0.15 | ug/L | | | 12/23/23 13:09 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.17 | ug/L | | | 12/23/23 13:09 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/23/23 13:09 | 1 |
| Toluene | ND | | 0.50 | 0.23 | ug/L | | | 12/23/23 13:09 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.24 | ug/L | | | 12/23/23 13:09 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.18 | ug/L | | | 12/23/23 13:09 | 1 |
| Trichloroethene | ND | | 0.50 | 0.17 | ug/L | | | 12/23/23 13:09 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.29 | ug/L | | | 12/23/23 13:09 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.47 | ug/L | | | 12/23/23 13:09 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.17 | ug/L | | | 12/23/23 13:09 | 1 |

| Surrogate | MB | MB | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 4-Bromofluorobenzene (Surr) | 107 | | 60 - 140 | | 12/23/23 13:09 | 1 |
| Dibromofluoromethane (Surr) | 103 | | 60 - 140 | | 12/23/23 13:09 | 1 |
| Toluene-d8 (Surr) | 98 | | 60 - 140 | | 12/23/23 13:09 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-396044/1003
Matrix: Water
Analysis Batch: 396044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------------------------|-------------|------------|---------------|------|---|------|-------------|
| 1,1,1-Trichloroethane | 10.0 | 10.8 | | ug/L | | 108 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 10.6 | | ug/L | | 106 | 60 - 140 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 10.0 | 10.4 | | ug/L | | 104 | 60 - 140 |
| 1,1,2-Trichloroethane | 10.0 | 10.5 | | ug/L | | 105 | 70 - 130 |
| 1,1-Dichloroethane | 10.0 | 11.9 | | ug/L | | 119 | 70 - 130 |
| 1,1-Dichloroethene | 10.0 | 11.8 | | ug/L | | 118 | 50 - 150 |
| 1,2-Dichlorobenzene | 10.0 | 9.91 | | ug/L | | 99 | 65 - 135 |
| 1,2-Dichloroethane | 10.0 | 11.6 | | ug/L | | 116 | 70 - 130 |
| 1,2-Dichloropropane | 10.0 | 11.3 | | ug/L | | 113 | 35 - 165 |
| 1,3-Dichlorobenzene | 10.0 | 10.2 | | ug/L | | 102 | 70 - 130 |
| 1,4-Dichlorobenzene | 10.0 | 9.71 | | ug/L | | 97 | 65 - 135 |
| Acrolein | 20.0 | 17.0 | | ug/L | | 85 | 60 - 140 |
| Acrylonitrile | 10.0 | 12.7 | | ug/L | | 127 | 60 - 140 |
| Benzene | 10.0 | 10.6 | | ug/L | | 106 | 65 - 135 |
| Bromodichloromethane | 10.0 | 10.9 | | ug/L | | 109 | 65 - 135 |
| Bromoform | 10.0 | 10.8 | | ug/L | | 108 | 70 - 130 |
| Bromomethane | 10.0 | 7.36 | | ug/L | | 74 | 15 - 185 |
| Carbon tetrachloride | 10.0 | 11.0 | | ug/L | | 110 | 70 - 130 |
| Chlorobenzene | 10.0 | 10.1 | | ug/L | | 101 | 65 - 135 |
| Chloroethane | 10.0 | 10.6 | | ug/L | | 106 | 40 - 160 |
| Chloroform | 10.0 | 10.7 | | ug/L | | 107 | 70 - 135 |
| Chloromethane | 10.0 | 22.8 | LQ | ug/L | | 228 | 1 - 205 |
| cis-1,2-Dichloroethene | 10.0 | 10.4 | | ug/L | | 104 | 60 - 140 |
| cis-1,3-Dichloropropene | 10.0 | 11.3 | | ug/L | | 113 | 25 - 175 |
| Dibromochloromethane | 10.0 | 10.2 | | ug/L | | 102 | 70 - 135 |
| Ethylbenzene | 10.0 | 10.4 | | ug/L | | 104 | 60 - 140 |
| Methylene Chloride | 10.0 | 10.0 | | ug/L | | 100 | 60 - 140 |
| Naphthalene | 10.0 | 9.39 | | ug/L | | 94 | 60 - 140 |
| o-Xylene | 10.0 | 10.2 | | ug/L | | 102 | 60 - 140 |
| m,p-Xylene | 20.0 | 21.2 | | ug/L | | 106 | 60 - 140 |
| Tetrachloroethene | 10.0 | 9.52 | | ug/L | | 95 | 70 - 130 |
| Toluene | 10.0 | 10.3 | | ug/L | | 103 | 70 - 130 |
| trans-1,2-Dichloroethene | 10.0 | 10.0 | | ug/L | | 100 | 70 - 130 |
| trans-1,3-Dichloropropene | 10.0 | 11.6 | | ug/L | | 116 | 50 - 150 |
| Trichloroethene | 10.0 | 10.1 | | ug/L | | 101 | 65 - 135 |
| Trichlorofluoromethane | 10.0 | 10.6 | | ug/L | | 106 | 50 - 150 |
| Vinyl chloride | 10.0 | 11.4 | | ug/L | | 114 | 5 - 195 |
| Xylenes, Total | 30.0 | 31.4 | | ug/L | | 105 | 60 - 140 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 101 | | 60 - 140 |
| Dibromofluoromethane (Surr) | 103 | | 60 - 140 |
| Toluene-d8 (Surr) | 100 | | 60 - 140 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-396044/4
 Matrix: Water
 Analysis Batch: 396044

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------------------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| 1,1,1-Trichloroethane | 10.0 | 11.3 | | ug/L | | 113 | 70 - 130 | 5 | 36 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 11.0 | | ug/L | | 110 | 60 - 140 | 3 | 61 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 10.0 | 10.7 | | ug/L | | 107 | 60 - 140 | 2 | 30 |
| 1,1,2-Trichloroethane | 10.0 | 10.4 | | ug/L | | 104 | 70 - 130 | 1 | 45 |
| 1,1-Dichloroethane | 10.0 | 12.3 | | ug/L | | 123 | 70 - 130 | 3 | 40 |
| 1,1-Dichloroethene | 10.0 | 12.6 | | ug/L | | 126 | 50 - 150 | 6 | 32 |
| 1,2-Dichlorobenzene | 10.0 | 10.1 | | ug/L | | 101 | 65 - 135 | 2 | 57 |
| 1,2-Dichloroethane | 10.0 | 11.7 | | ug/L | | 117 | 70 - 130 | 1 | 49 |
| 1,2-Dichloropropane | 10.0 | 11.9 | | ug/L | | 119 | 35 - 165 | 6 | 55 |
| 1,3-Dichlorobenzene | 10.0 | 10.5 | | ug/L | | 105 | 70 - 130 | 3 | 43 |
| 1,4-Dichlorobenzene | 10.0 | 10.2 | | ug/L | | 102 | 65 - 135 | 5 | 57 |
| Acrolein | 20.0 | 16.5 | | ug/L | | 82 | 60 - 140 | 3 | 60 |
| Acrylonitrile | 10.0 | 11.8 | | ug/L | | 118 | 60 - 140 | 7 | 60 |
| Benzene | 10.0 | 11.0 | | ug/L | | 110 | 65 - 135 | 3 | 61 |
| Bromodichloromethane | 10.0 | 10.9 | | ug/L | | 109 | 65 - 135 | 0 | 56 |
| Bromoform | 10.0 | 10.7 | | ug/L | | 107 | 70 - 130 | 1 | 42 |
| Bromomethane | 10.0 | 7.23 | | ug/L | | 72 | 15 - 185 | 2 | 61 |
| Carbon tetrachloride | 10.0 | 11.6 | | ug/L | | 116 | 70 - 130 | 5 | 41 |
| Chlorobenzene | 10.0 | 10.4 | | ug/L | | 104 | 65 - 135 | 3 | 53 |
| Chloroethane | 10.0 | 10.6 | | ug/L | | 106 | 40 - 160 | 0 | 78 |
| Chloroform | 10.0 | 10.9 | | ug/L | | 109 | 70 - 135 | 2 | 30 |
| Chloromethane | 10.0 | 22.6 | LQ | ug/L | | 226 | 1 - 205 | 1 | 60 |
| cis-1,2-Dichloroethene | 10.0 | 10.6 | | ug/L | | 106 | 60 - 140 | 2 | 30 |
| cis-1,3-Dichloropropene | 10.0 | 11.4 | | ug/L | | 114 | 25 - 175 | 1 | 58 |
| Dibromochloromethane | 10.0 | 10.3 | | ug/L | | 103 | 70 - 135 | 1 | 50 |
| Ethylbenzene | 10.0 | 10.6 | | ug/L | | 106 | 60 - 140 | 2 | 63 |
| Methylene Chloride | 10.0 | 9.71 | | ug/L | | 97 | 60 - 140 | 3 | 28 |
| Naphthalene | 10.0 | 9.51 | | ug/L | | 95 | 60 - 140 | 1 | 30 |
| o-Xylene | 10.0 | 10.7 | | ug/L | | 107 | 60 - 140 | 4 | 30 |
| m,p-Xylene | 20.0 | 22.4 | | ug/L | | 112 | 60 - 140 | 6 | 30 |
| Tetrachloroethene | 10.0 | 9.87 | | ug/L | | 99 | 70 - 130 | 4 | 39 |
| Toluene | 10.0 | 10.5 | | ug/L | | 105 | 70 - 130 | 2 | 41 |
| trans-1,2-Dichloroethene | 10.0 | 10.3 | | ug/L | | 103 | 70 - 130 | 3 | 45 |
| trans-1,3-Dichloropropene | 10.0 | 11.1 | | ug/L | | 111 | 50 - 150 | 5 | 86 |
| Trichloroethene | 10.0 | 10.5 | | ug/L | | 105 | 65 - 135 | 4 | 48 |
| Trichlorofluoromethane | 10.0 | 11.0 | | ug/L | | 110 | 50 - 150 | 3 | 84 |
| Vinyl chloride | 10.0 | 11.8 | | ug/L | | 118 | 5 - 195 | 3 | 66 |
| Xylenes, Total | 30.0 | 33.1 | | ug/L | | 110 | 60 - 140 | 5 | 30 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|-----------------------------|----------------|----------------|-------------|
| 4-Bromofluorobenzene (Surr) | 104 | | 60 - 140 |
| Dibromofluoromethane (Surr) | 102 | | 60 - 140 |
| Toluene-d8 (Surr) | 102 | | 60 - 140 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-396701/1-A
Matrix: Water
Analysis Batch: 397499

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396701

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| HEM (Oil & Grease) | ND | | 1.0 | 0.51 | mg/L | | 12/28/23 09:50 | 01/02/24 06:56 | 1 |

Lab Sample ID: LCS 570-396701/2-A
Matrix: Water
Analysis Batch: 397499

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396701

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|-------------|------------|---------------|------|---|------|-------------|
| HEM (Oil & Grease) | 40.0 | 31.5 | | mg/L | | 79 | 78 - 114 |

Lab Sample ID: LCSD 570-396701/3-A
Matrix: Water
Analysis Batch: 397499

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 396701

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| HEM (Oil & Grease) | 40.0 | 31.6 | | mg/L | | 79 | 78 - 114 | 0 | 18 |

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 570-397836/10
Matrix: Water
Analysis Batch: 397836

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|-----------|--------------|-----|-----|----------|---|----------|----------------|---------|
| Specific Conductance | ND | | 1.0 | 1.0 | umhos/cm | | | 01/02/24 16:08 | 1 |

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

GC/MS VOA

Analysis Batch: 396044

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165913-1 | Outfall001_20231221_Grab | Total/NA | Water | 624.1 | |
| 570-165913-3 | TB-20231221 | Total/NA | Water | 624.1 | |
| MB 570-396044/6 | Method Blank | Total/NA | Water | 624.1 | |
| LCS 570-396044/1003 | Lab Control Sample | Total/NA | Water | 624.1 | |
| LCSD 570-396044/4 | Lab Control Sample Dup | Total/NA | Water | 624.1 | |

General Chemistry

Analysis Batch: 396011

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|----------|------------|
| 570-165913-1 | Outfall001_20231221_Grab | Total/NA | Water | SM 2540F | |

Prep Batch: 396701

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165913-1 | Outfall001_20231221_Grab | Total/NA | Water | 1664A | |
| MB 570-396701/1-A | Method Blank | Total/NA | Water | 1664A | |
| LCS 570-396701/2-A | Lab Control Sample | Total/NA | Water | 1664A | |
| LCSD 570-396701/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | |

Analysis Batch: 397499

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165913-1 | Outfall001_20231221_Grab | Total/NA | Water | 1664A | 396701 |
| MB 570-396701/1-A | Method Blank | Total/NA | Water | 1664A | 396701 |
| LCS 570-396701/2-A | Lab Control Sample | Total/NA | Water | 1664A | 396701 |
| LCSD 570-396701/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | 396701 |

Analysis Batch: 397836

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------------|-----------|--------|----------|------------|
| 570-165913-1 | Outfall001_20231221_Grab | Total/NA | Water | SM 2510B | |
| MB 570-397836/10 | Method Blank | Total/NA | Water | SM 2510B | |

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Client Sample ID: Outfall001_20231221_Grab

Lab Sample ID: 570-165913-1

Date Collected: 12/21/23 13:15

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|------------------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Analysis | 624.1 | | 1 | 10 mL | 10 mL | 396044 | 12/23/23 14:15 | B7TT | EET CAL 4 |
| Instrument ID: GCMSJJ | | | | | | | | | | |
| Total/NA | Prep | 1664A | | | 1015 mL | 1000 mL | 396701 | 12/28/23 09:50 | YTB4 | EET CAL 4 |
| Total/NA | Analysis | 1664A | | 1 | | | 397499 | 01/02/24 06:56 | VB5S | EET CAL 4 |
| Instrument ID: NO EQUIQ | | | | | | | | | | |
| Total/NA | Analysis | SM 2510B | | 1 | | | 397836 | 01/02/24 17:01 | ZL4M | EET CAL 4 |
| Instrument ID: ManSciMantech | | | | | | | | | | |
| Total/NA | Analysis | SM 2540F | | 1 | 1000 mL | 1 L | 396011 | 12/23/23 08:10 | ZVB7 | EET CAL 4 |
| Instrument ID: NOEQUIP | | | | | | | | | | |

Client Sample ID: TB-20231221

Lab Sample ID: 570-165913-3

Date Collected: 12/21/23 13:15

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Analysis | 624.1 | | 1 | 10 mL | 10 mL | 396044 | 12/23/23 13:53 | B7TT | EET CAL 4 |
| Instrument ID: GCMSJJ | | | | | | | | | | |

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|------------|---|-----------------------|-----------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

| Method | Method Description | Protocol | Laboratory |
|----------|------------------------------------|----------|------------|
| 624.1 | Volatile Organic Compounds (GC/MS) | EPA | EET CAL 4 |
| 1664A | HEM and SGT-HEM | 1664A | EET CAL 4 |
| SM 2510B | Conductivity, Specific Conductance | SM | EET CAL 4 |
| SM 2540F | Solids, Settleable | SM | EET CAL 4 |
| 1664A | HEM and SGT-HEM (Aqueous) | 1664A | EET CAL 4 |

Protocol References:

- 1664A = EPA-821-98-002
- EPA = US Environmental Protection Agency
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

- EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Grab

Job ID: 570-165913-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165913-1 | Outfall001_20231221_Grab | Water | 12/21/23 13:15 | 12/22/23 17:30 |
| 570-165913-3 | TB-20231221 | Water | 12/21/23 13:15 | 12/22/23 17:30 |

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165 913
VV9Z

Revised COC received
from Victoria Pehlivan
(H&A) on 12/26/23 @
15:35pm.
- Virendra (ECI)

CHAIN OF CUSTODY FORM

Eurofins Calscience Tustin

| Client Name/Address: Halley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Quarterny Outfall [001, 002, 011, 018] Outfall 001 Grab | | Field Readings (Include units) Time of Readings: 1310 DO 11.2 mg/L pH 7.69 pH unit Temp 56.0 °C | | Meter serial # 15212 | | | | | |
|--|--------------------------------|---|---------------|---|---------------------------------|----------------------|--------------------------|---|-------------------|---|----------|
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | Field readings QC Checked by: <i>[Signature]</i> Date/Time: 12-21-2023/1310 | | | | | | | |
| Eurofins Calscience's services under this COC shall be performed in accordance with the TACs within Baseket Service Agreement 2022-24-Eurofins by and between Halley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | |
| Sampler: Adrien Mobeka | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | M/SMSD | ANALYSIS REQUIRED | Field Readings | Comments |
| Outfall 001 | Outfall001_20231221_Grab | 12/21/2023 / 1315 | WM | 1 L Glass Amber | 2 | HCl | 15 | No | X | | |
| | | | WM | 40 mL VOA | 3 | HCl | 20 | No | X | | |
| | | | WM | 1 L Poly | 1 | None | 70 | No | X | | |
| | | | WM | 500 mL Poly | 1 | None | 75 | No | X | | |
| | | | WM | 1 L Glass Amber | 2 | HCl | 15 | No | H | | Hold |
| | Outfall001_20231221_Grab_Extra | 12/21/2023 / 1315 | WM | 40 mL VOA | 3 | HCl | 20 | No | H | | Hold |
| | | | WM | 500 mL Poly | 1 | None | 75 | No | X | | Hold |
| | Trip Blank TB-20231221 | 12/21/2023 / 1315 | WQ | 40 mL VOA | 2 | HCl | 20 | No | X | | Hold |
| | | | | | | | | | | 570-165913 Chain of Custody | |
| Relinquished By: <i>[Signature]</i> | | Date/Time: 12-22-2023/1252 | Company: H&A | | Received By: <i>[Signature]</i> | | Date/Time: 12/22/23 1252 | Legend: R=Routine, Q=Quarterly, S=Semi-Annual | | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> X 48 Hour: _____ 5 Day: _____ Normal: _____ | |
| Relinquished By: <i>[Signature]</i> | | Date/Time: 12/22/23 1330 | Company: | | Received By: <i>[Signature]</i> | | Date/Time: 12/22/23 1730 | | | Sample integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months: _____ Data Requirements: (Check) No Level IV: _____ All Level IV: <input checked="" type="checkbox"/> X | |


1.8/2.2 1.6/2.0 5.14



CHAIN OF CUSTODY FORM

R Q/S F R

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | | Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 001 Grab | | | | | ANALYSIS REQUIRED | | | | Field Readings Meter serial # <u>15212</u> | |
|--|--------------------------------|--------------------|---|-----------------|------------|--------------|----------|--|---|--------------------------------------|---------------------------------|---|------|
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | | Oil & Grease (E1664A-HEM) | VOCs + 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) (E624) | Settleable Solids (E160.5 (SM2540F)) | Conductivity (SM2510B / E120.1) | Field Readings: (Include units) Time of Readings: <u>1310</u> | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement #2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | | | | | | | | | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | |
| Sampler: Adrien Mobeka | | | | | | | | Field readings QC Checked by: <u>[Signature]</u> Date/Time: <u>12-21-2023/1310</u> | | Comments | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | | | | | |
| Outfall 001 | Outfall001_20231221_Grab | 12/21/2023 / 1315 | WM | 1 L Glass Amber | 2 | HCl | 15 | No | X | | | | |
| | | | WM | 40 mL VOA | 3 | HCl | 20 | No | | X | | | |
| | | | WM | 1 L Poly | 1 | None | 70 | No | | | X | | |
| | Outfall001_20231221_Grab_Extra | 12/21/2023 / 1315 | WM | 1 L Glass Amber | 2 | HCl | 15 | No | H | | | Hold | |
| | | | WM | 40 mL VOA | 3 | HCl | 20 | No | | H | | Hold | |
| | | | WM | 500 mL Poly | 1 | None | 75 | No | | | H | | Hold |
| Trip Blank | TB-20231221 | 12/21/2023 / 1315 | WQ | 40 mL VOA | 2 | HCl | 20 | No | X | | | | |



570-165913 Chain of Custody

Legend: R=Routine, Q=Quarterly, S=Semi-Annual

| | | |
|---|---|--|
| Relinquished By: <u>[Signature]</u> Date/Time: <u>12-22-2023/1252</u> Company: <u>H&A</u> | Received By: <u>[Signature]</u> Date/Time: <u>12/22/23 1252</u> | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <u>X</u> 48 Hour: _____ 5 Day: _____ Normal: _____ Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <u>X</u> |
| Relinquished By: <u>[Signature]</u> Date/Time: <u>12/22/23 1230</u> Company: _____ | Received By: <u>[Signature]</u> Date/Time: <u>12/22/23 1730</u> | |
| Relinquished By: _____ Date/Time: _____ Company: _____ | Received By: _____ Date/Time: _____ | |

1.8/2.2 1.6/2.0 5014



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165913-1

Login Number: 165913

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/18/2024 3:47:46 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 001 - Comp

JOB NUMBER

570-165916-1

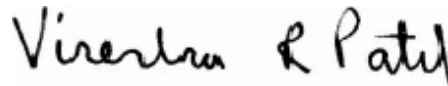
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Qualifiers

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| BA | Relative percent difference out of control |

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| PI | Primary and confirm results varied by > than 40% RPD |

HPLC/IC

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| BB | Sample > 4X spike concentration |
| BU | Sample was prepped beyond the specified holding time |
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| LN | MS and/or MSD below acceptance limits. See Blank Spike (LCS) |
| MB | Analyte present in the method blank |

General Chemistry

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |

Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|--------------|---|
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

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Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Job ID: 570-165916-1

Eurofins Calscience

Job Narrative 570-165916-1

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6° C, 2.2° C and 2.4° C.

GC/MS VOA

Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-396044. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 570-396044 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 624.1: The continuing calibration verification (CCV) associated with batch 570-396044 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: Outfall001_20231222_Comp (570-165916-1) and (CCVIS 570-396044/3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 625.1 SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-397007 and analytical batch 570-399510 recovered outside control limits for the following analytes: N-Nitrosodimethylamine.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method 200.8: The method blank for preparation batch 570-396612 and analytical batch 570-397364 contained Manganese above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 200.8: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-396612 and analytical batch 570-397228 were outside control limits for Manganese and Selenium. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method Filtration: The following samples were not filtered within 15 minutes of sample collection as required by the method: Outfall001_20231222_Comp_F (570-165916-3), Outfall001_20231222_Comp_F (570-165916-3[MS]) and Outfall001_20231222_Comp_F (570-165916-3[MSD]). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method SM 5540C: Sample result concentrations for methylene blue active substances (MBAS) are calculated as LAS, mol. wt. 320.

Method Kelada 01: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 570-398571 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Eurofins Calscience

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Job ID: 570-165916-1 (Continued)

Eurofins Calscience

Method SM 5210B: The correction factor for the Seeded Control Blank (SCB) for batch 570-396884 was outside the method range of 0.6 to 1.0 mg/L. Thus, there is added uncertainty for the associated sample results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method 625: The following sample formed emulsions during the extraction procedure: Outfall001_20231222_Comp (570-165916-1). The emulsions were broken up using a centrifuge and Sodium Sulfate.

Method 625: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-397007.

Method 625.1 Sim

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Client Sample ID: Outfall001_20231222_Comp

Lab Sample ID: 570-165916-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------|--------|-----------|-------|-------|------|---------|---|-------------|-------------------|
| Chloride | 2.8 | | 1.0 | 0.36 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrite as N | 0.050 | J,DX | 0.10 | 0.043 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.33 | | 0.10 | 0.020 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 10 | | 1.0 | 0.18 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate Nitrite as N | 0.38 | | 0.10 | 0.020 | mg/L | 1 | | NO2NO3 Calc | Total/NA |
| Cadmium | 0.36 | J,DX | 1.0 | 0.13 | ug/L | 1 | | 200.8 | Total Recoverable |
| Copper | 10 | | 2.0 | 0.32 | ug/L | 1 | | 200.8 | Total Recoverable |
| Iron | 16000 | | 20 | 3.7 | ug/L | 1 | | 200.8 | Total Recoverable |
| Lead | 9.4 | | 1.0 | 0.12 | ug/L | 1 | | 200.8 | Total Recoverable |
| Manganese | 280 | MB | 1.0 | 0.41 | ug/L | 1 | | 200.8 | Total Recoverable |
| Selenium | 0.96 | J,DX | 2.0 | 0.52 | ug/L | 1 | | 200.8 | Total Recoverable |
| Zinc | 56 | | 20 | 2.8 | ug/L | 1 | | 200.8 | Total Recoverable |
| Ammonia | 0.032 | J,DX | 0.075 | 0.029 | mg/L | 1 | | 350.1 | Total/NA |
| Turbidity | 650 | | 0.05 | 0.05 | NTU | 1 | | SM 2130B | Total/NA |
| Total Dissolved Solids | 190 | | 10 | 8.7 | mg/L | 1 | | SM 2540C | Total/NA |
| Total Suspended Solids | 270 | | 10 | 8.0 | mg/L | 1 | | SM 2540D | Total/NA |
| Biochemical Oxygen Demand | 3.8 | | 2.0 | 1.0 | mg/L | 1 | | SM 5210B | Total/NA |

Client Sample ID: Outfall001_20231222_Comp_F

Lab Sample ID: 570-165916-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| Copper | 2.1 | BU | 2.0 | 0.32 | ug/L | 1 | | 200.8 | Dissolved |
| Iron | 680 | BU | 20 | 3.7 | ug/L | 1 | | 200.8 | Dissolved |
| Lead | 0.36 | J,DX BU | 1.0 | 0.12 | ug/L | 1 | | 200.8 | Dissolved |
| Manganese | 10 | BU | 1.0 | 0.41 | ug/L | 1 | | 200.8 | Dissolved |
| Zinc | 3.2 | J,DX BU | 20 | 2.8 | ug/L | 1 | | 200.8 | Dissolved |

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Client Sample ID: Outfall001_20231222_Comp

Lab Sample ID: 570-165916-1

Date Collected: 12/22/23 09:35

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| 2,4,6-Trichlorophenol | ND | | 0.96 | 0.13 | ug/L | | 12/29/23 14:23 | 01/09/24 18:26 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.19 | 0.11 | ug/L | | 12/29/23 14:23 | 01/09/24 18:26 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 4.8 | 3.5 | ug/L | | 12/29/23 14:23 | 01/09/24 18:26 | 1 |
| N-Nitrosodimethylamine | ND | BA | 0.19 | 0.18 | ug/L | | 12/29/23 14:23 | 01/09/24 18:26 | 1 |
| Pentachlorophenol | ND | | 0.96 | 0.81 | ug/L | | 12/29/23 14:23 | 01/09/24 18:26 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 53 | | 31 - 120 | 12/29/23 14:23 | 01/09/24 18:26 | 1 |
| Phenol-d6 (Surr) | 23 | | 10 - 120 | 12/29/23 14:23 | 01/09/24 18:26 | 1 |
| p-Terphenyl-d14 (Surr) | 58 | | 45 - 120 | 12/29/23 14:23 | 01/09/24 18:26 | 1 |
| 2,4,6-Tribromophenol | 74 | | 28 - 127 | 12/29/23 14:23 | 01/09/24 18:26 | 1 |
| 2-Fluorophenol | 32 | | 17 - 120 | 12/29/23 14:23 | 01/09/24 18:26 | 1 |
| Nitrobenzene-d5 | 54 | | 27 - 120 | 12/29/23 14:23 | 01/09/24 18:26 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: EPA 608.3 - Organochlorine Pesticides in Water

Client Sample ID: Outfall001_20231222_Comp

Date Collected: 12/22/23 09:35

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-----------|-----------|----------|--------|------|---|----------------|----------------|---------|
| alpha-BHC | ND | | 0.0013 | 0.0012 | ug/L | | 12/27/23 13:08 | 01/08/24 09:50 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| Tetrachloro-m-xylene | 21 | PI | 20 - 139 | | | | 12/27/23 13:08 | 01/08/24 09:50 | 1 |
| DCB Decachlorobiphenyl (Surr) | 34 | PI | 20 - 154 | | | | 12/27/23 13:08 | 01/08/24 09:50 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: EPA 300.0 - Anions, Ion Chromatography

Client Sample ID: Outfall001_20231222_Comp

Date Collected: 12/22/23 09:35

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 2.8 | | 1.0 | 0.36 | mg/L | | | 12/23/23 09:17 | 1 |
| Nitrite as N | 0.050 | J,DX | 0.10 | 0.043 | mg/L | | | 12/23/23 09:17 | 1 |
| Nitrate as N | 0.33 | | 0.10 | 0.020 | mg/L | | | 12/23/23 09:17 | 1 |
| Sulfate | 10 | | 1.0 | 0.18 | mg/L | | | 12/23/23 09:17 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: EPA 314.0 - Perchlorate (IC)

Client Sample ID: Outfall001_20231222_Comp

Date Collected: 12/22/23 09:35

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Perchlorate | ND | | 2.0 | 0.91 | ug/L | | | 12/28/23 07:57 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: EPA NO2NO3 Calc - Nitrogen, Nitrate-Nitrite

Client Sample ID: Outfall001_20231222_Comp

Date Collected: 12/22/23 09:35

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Nitrate Nitrite as N | 0.38 | | 0.10 | 0.020 | mg/L | | | 12/23/23 09:17 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: Outfall001_20231222_Comp

Lab Sample ID: 570-165916-1

Date Collected: 12/22/23 09:35

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Cadmium | 0.36 | J,DX | 1.0 | 0.13 | ug/L | | 12/28/23 07:02 | 12/29/23 12:38 | 1 |
| Copper | 10 | | 2.0 | 0.32 | ug/L | | 12/28/23 07:02 | 12/29/23 12:38 | 1 |
| Iron | 16000 | | 20 | 3.7 | ug/L | | 12/28/23 07:02 | 12/29/23 12:38 | 1 |
| Lead | 9.4 | | 1.0 | 0.12 | ug/L | | 12/28/23 07:02 | 12/29/23 12:38 | 1 |
| Manganese | 280 | MB | 1.0 | 0.41 | ug/L | | 12/28/23 07:02 | 12/29/23 12:38 | 1 |
| Selenium | 0.96 | J,DX | 2.0 | 0.52 | ug/L | | 12/28/23 07:02 | 12/29/23 12:38 | 1 |
| Zinc | 56 | | 20 | 2.8 | ug/L | | 12/28/23 07:02 | 12/29/23 12:38 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: Outfall001_20231222_Comp_F

Date Collected: 12/22/23 09:35

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-3

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Cadmium | ND | BU | 1.0 | 0.13 | ug/L | | | 01/04/24 15:41 | 1 |
| Copper | 2.1 | BU | 2.0 | 0.32 | ug/L | | | 01/04/24 15:41 | 1 |
| Iron | 680 | BU | 20 | 3.7 | ug/L | | | 01/04/24 15:41 | 1 |
| Lead | 0.36 | J,DX BU | 1.0 | 0.12 | ug/L | | | 01/04/24 15:41 | 1 |
| Manganese | 10 | BU | 1.0 | 0.41 | ug/L | | | 01/04/24 15:41 | 1 |
| Selenium | ND | BU | 2.0 | 0.52 | ug/L | | | 01/04/24 15:41 | 1 |
| Zinc | 3.2 | J,DX BU | 20 | 2.8 | ug/L | | | 01/04/24 15:41 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: Outfall001_20231222_Comp
Date Collected: 12/22/23 09:35
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/10/24 13:26 | 01/12/24 12:21 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: EPA 245.1 - Mercury (CVAA) - Dissolved

Client Sample ID: Outfall001_20231222_Comp_F
Date Collected: 12/22/23 09:35
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-3
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | BU | 0.20 | 0.12 | ug/L | | 01/09/24 15:13 | 01/10/24 13:38 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

General Chemistry

Client Sample ID: Outfall001_20231222_Comp

Lab Sample ID: 570-165916-1

Date Collected: 12/22/23 09:35

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------------|-------------|-------|-------|------|---|----------------|----------------|---------|
| Ammonia (EPA 350.1) | 0.032 | J,DX | 0.075 | 0.029 | mg/L | | 01/05/24 09:38 | 01/05/24 12:13 | 1 |
| Cyanide, Total (EPA Kelada 01) | ND | | 5.0 | 2.5 | ug/L | | | 01/04/24 15:53 | 1 |
| Turbidity (SM 2130B) | 650 | | 0.05 | 0.05 | NTU | | | 12/23/23 09:57 | 1 |
| Total Dissolved Solids (SM 2540C) | 190 | | 10 | 8.7 | mg/L | | | 12/28/23 12:15 | 1 |
| Total Suspended Solids (SM 2540D) | 270 | | 10 | 8.0 | mg/L | | | 12/27/23 19:07 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 3.8 | | 2.0 | 1.0 | mg/L | | 12/23/23 10:12 | 12/28/23 14:44 | 1 |
| MBAS (SM 5540C) | ND | | 0.20 | 0.050 | mg/L | | 12/23/23 10:10 | 12/23/23 11:45 | 1 |

Surrogate Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|---------------------|--------------------------|--|------------------|--------------------|-----------------|-----------------|-----------------|
| | | FBP (31-120) | PHL6 (10-120) | TPHd14 (45-120) | TBP (28-127) | 2FP (17-120) | NBZ (27-120) |
| 570-165916-1 | Outfall001_20231222_Comp | 53 | 23 | 58 | 74 | 32 | 54 |
| LCS 570-397007/2-A | Lab Control Sample | 52 | 30 | 76 | 76 | 46 | 50 |
| LCSD 570-397007/3-A | Lab Control Sample Dup | 50 | 23 | 55 | 70 | 36 | 47 |
| MB 570-397007/1-A | Method Blank | 60 | 23 | 74 | 75 | 39 | 61 |

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)
 TBP = 2,4,6-Tribromophenol
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | |
|-------------------|--------------------------|--|------------------|
| | | TCX1 (20-139) | DCB1 (20-154) |
| 570-165916-1 | Outfall001_20231222_Comp | 21 PI | 34 PI |
| MB 570-398410/1-A | Method Blank | 48 | 44 |

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCB = DCB Decachlorobiphenyl (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | |
|---------------------|------------------------|--|------------------|
| | | TCX2 (20-139) | DCB1 (20-154) |
| LCS 570-398410/2-A | Lab Control Sample | 78 | 80 |
| LCSD 570-398410/3-A | Lab Control Sample Dup | 76 | 80 |

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCB = DCB Decachlorobiphenyl (Surr)

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 570-397007/1-A
Matrix: Water
Analysis Batch: 398733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 397007

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| 2,4,6-Trichlorophenol | ND | | 1.0 | 0.14 | ug/L | | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.20 | 0.12 | ug/L | | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 5.0 | 3.6 | ug/L | | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| N-Nitrosodimethylamine | ND | | 0.20 | 0.19 | ug/L | | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| Pentachlorophenol | ND | | 1.0 | 0.84 | ug/L | | 12/28/23 21:50 | 01/05/24 18:39 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 60 | | 31 - 120 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| Phenol-d6 (Surr) | 23 | | 10 - 120 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| p-Terphenyl-d14 (Surr) | 74 | | 45 - 120 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| 2,4,6-Tribromophenol | 75 | | 28 - 127 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| 2-Fluorophenol | 39 | | 17 - 120 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| Nitrobenzene-d5 | 61 | | 27 - 120 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |

Lab Sample ID: LCS 570-397007/2-A
Matrix: Water
Analysis Batch: 399510

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 397007

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|-------------|
| 2,4,6-Trichlorophenol | 20.0 | 13.1 | | ug/L | | 66 | 52 - 129 |
| 2,4-Dinitrotoluene | 20.0 | 16.3 | | ug/L | | 82 | 48 - 127 |
| Bis(2-ethylhexyl) phthalate | 20.0 | 17.8 | | ug/L | | 89 | 29 - 137 |
| N-Nitrosodimethylamine | 20.0 | 13.3 | | ug/L | | 66 | 20 - 120 |
| Pentachlorophenol | 20.0 | 14.5 | | ug/L | | 72 | 38 - 152 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 52 | | 31 - 120 |
| Phenol-d6 (Surr) | 30 | | 10 - 120 |
| p-Terphenyl-d14 (Surr) | 76 | | 45 - 120 |
| 2,4,6-Tribromophenol | 76 | | 28 - 127 |
| 2-Fluorophenol | 46 | | 17 - 120 |
| Nitrobenzene-d5 | 50 | | 27 - 120 |

Lab Sample ID: LCSD 570-397007/3-A
Matrix: Water
Analysis Batch: 399510

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 397007

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| 2,4,6-Trichlorophenol | 20.0 | 12.0 | | ug/L | | 60 | 52 - 129 | 9 | 35 |
| 2,4-Dinitrotoluene | 20.0 | 14.6 | | ug/L | | 73 | 48 - 127 | 11 | 25 |
| Bis(2-ethylhexyl) phthalate | 20.0 | 14.8 | | ug/L | | 74 | 29 - 137 | 19 | 50 |
| N-Nitrosodimethylamine | 20.0 | 8.84 | BA | ug/L | | 44 | 20 - 120 | 40 | 21 |
| Pentachlorophenol | 20.0 | 13.0 | | ug/L | | 65 | 38 - 152 | 11 | 52 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|-------------------------|----------------|----------------|----------|
| 2-Fluorobiphenyl (Surr) | 50 | | 31 - 120 |
| Phenol-d6 (Surr) | 23 | | 10 - 120 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCSD 570-397007/3-A
Matrix: Water
Analysis Batch: 399510

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 397007

| Surrogate | LCS D %Recovery | LCS D Qualifier | Limits |
|------------------------|-----------------|-----------------|----------|
| p-Terphenyl-d14 (Surr) | 55 | | 45 - 120 |
| 2,4,6-Tribromophenol | 70 | | 28 - 127 |
| 2-Fluorophenol | 36 | | 17 - 120 |
| Nitrobenzene-d5 | 47 | | 27 - 120 |

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-398410/1-A
Matrix: Water
Analysis Batch: 399037

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 398410

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|-----------|--------------|--------|--------|------|---|----------------|----------------|---------|
| alpha-BHC | ND | | 0.0013 | 0.0012 | ug/L | | 12/27/23 13:08 | 01/08/24 01:15 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene | 48 | | 20 - 139 | 12/27/23 13:08 | 01/08/24 01:15 | 1 |
| DCB Decachlorobiphenyl (Surr) | 44 | | 20 - 154 | 12/27/23 13:08 | 01/08/24 01:15 | 1 |

Lab Sample ID: LCS 570-398410/2-A
Matrix: Water
Analysis Batch: 399059

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 398410

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|------------|---------------|------|---|------|-------------|
| alpha-BHC | 0.0333 | 0.0248 | | ug/L | | 74 | 37 - 140 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-------------------------------|---------------|---------------|----------|
| Tetrachloro-m-xylene | 78 | | 20 - 139 |
| DCB Decachlorobiphenyl (Surr) | 80 | | 20 - 154 |

Lab Sample ID: LCSD 570-398410/3-A
Matrix: Water
Analysis Batch: 399059

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 398410

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| alpha-BHC | 0.0333 | 0.0245 | | ug/L | | 74 | 37 - 140 | 1 | 36 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|-------------------------------|----------------|----------------|----------|
| Tetrachloro-m-xylene | 76 | | 20 - 139 |
| DCB Decachlorobiphenyl (Surr) | 80 | | 20 - 154 |

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-395973/5
Matrix: Water
Analysis Batch: 395973

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Nitrite as N | ND | | 0.10 | 0.043 | mg/L | | | 12/23/23 07:02 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 570-395973/5
Matrix: Water
Analysis Batch: 395973

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Nitrate as N | ND | | 0.10 | 0.020 | mg/L | | | 12/23/23 07:02 | 1 |

Lab Sample ID: LCS 570-395973/6
Matrix: Water
Analysis Batch: 395973

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------|-------------|------------|---------------|------|---|------|-------------|
| Nitrite as N | 2.50 | 2.60 | | mg/L | | 104 | 90 - 110 |
| Nitrate as N | 5.00 | 4.88 | | mg/L | | 98 | 90 - 110 |

Lab Sample ID: LCSD 570-395973/7
Matrix: Water
Analysis Batch: 395973

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Nitrite as N | 2.50 | 2.59 | | mg/L | | 104 | 90 - 110 | 0 | 15 |
| Nitrate as N | 5.00 | 4.88 | | mg/L | | 98 | 90 - 110 | 0 | 15 |

Lab Sample ID: MB 570-395974/5
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Chloride | ND | | 1.0 | 0.36 | mg/L | | | 12/23/23 07:02 | 1 |
| Sulfate | ND | | 1.0 | 0.18 | mg/L | | | 12/23/23 07:02 | 1 |

Lab Sample ID: LCS 570-395974/6
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 50.0 | 48.0 | | mg/L | | 96 | 90 - 110 |
| Sulfate | 50.0 | 48.5 | | mg/L | | 97 | 90 - 110 |

Lab Sample ID: LCSD 570-395974/7
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Chloride | 50.0 | 48.0 | | mg/L | | 96 | 90 - 110 | 0 | 15 |
| Sulfate | 50.0 | 48.4 | | mg/L | | 97 | 90 - 110 | 0 | 15 |

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 570-396303/31
Matrix: Water
Analysis Batch: 396303

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Perchlorate | ND | | 2.0 | 0.91 | ug/L | | | 12/27/23 23:37 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: 314.0 - Perchlorate (IC) (Continued)

Lab Sample ID: LCS 570-396303/32
Matrix: Water
Analysis Batch: 396303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------|-------------|------------|---------------|------|---|------|-------------|
| Perchlorate | 25.0 | 23.3 | | ug/L | | 93 | 85 - 115 |

Lab Sample ID: LCSD 570-396303/33
Matrix: Water
Analysis Batch: 396303

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Perchlorate | 25.0 | 23.0 | | ug/L | | 92 | 85 - 115 | 1 | 15 |

Lab Sample ID: MRL 570-396303/1004
Matrix: Water
Analysis Batch: 396303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------|-------------|------------|---------------|------|---|------|-------------|
| Perchlorate | 2.00 | 1.70 | J,DX | ug/L | | 85 | 75 - 125 |

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-396612/1-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |
| Copper | ND | | 2.0 | 0.32 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |
| Iron | ND | | 20 | 3.7 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |
| Manganese | 0.478 | J,DX | 1.0 | 0.41 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |
| Zinc | ND | | 20 | 2.8 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |

Lab Sample ID: LCS 570-396612/2-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|------------|---------------|------|---|------|-------------|
| Cadmium | 80.0 | 79.0 | | ug/L | | 99 | 85 - 115 |
| Copper | 80.0 | 78.9 | | ug/L | | 99 | 85 - 115 |
| Iron | 4000 | 3880 | | ug/L | | 97 | 85 - 115 |
| Lead | 80.0 | 78.6 | | ug/L | | 98 | 85 - 115 |
| Manganese | 80.0 | 82.1 | | ug/L | | 103 | 85 - 115 |
| Selenium | 80.0 | 82.7 | | ug/L | | 103 | 85 - 115 |
| Zinc | 80.0 | 76.5 | | ug/L | | 96 | 85 - 115 |

Lab Sample ID: LCSD 570-396612/3-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Cadmium | 80.0 | 79.0 | | ug/L | | 99 | 85 - 115 | 0 | 20 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 570-396612/3-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Copper | 80.0 | 79.1 | | ug/L | | 99 | 85 - 115 | 0 | 20 |
| Iron | 4000 | 3830 | | ug/L | | 96 | 85 - 115 | 1 | 20 |
| Lead | 80.0 | 78.8 | | ug/L | | 99 | 85 - 115 | 0 | 20 |
| Manganese | 80.0 | 82.5 | | ug/L | | 103 | 85 - 115 | 1 | 20 |
| Selenium | 80.0 | 83.3 | | ug/L | | 104 | 85 - 115 | 1 | 20 |
| Zinc | 80.0 | 76.2 | | ug/L | | 95 | 85 - 115 | 0 | 20 |

Lab Sample ID: 570-165916-1 MS
Matrix: Water
Analysis Batch: 397228

Client Sample ID: Outfall001_20231222_Comp
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|-----|-----------|
| Cadmium | 0.36 | J,DX | 80.0 | 81.7 | | ug/L | | 102 | 80 - 120 | | |
| Copper | 10 | | 80.0 | 85.6 | | ug/L | | 94 | 80 - 120 | | |
| Iron | 16000 | | 4000 | 17900 | BB | ug/L | | 45 | 80 - 120 | | |
| Lead | 9.4 | | 80.0 | 87.3 | | ug/L | | 97 | 80 - 120 | | |
| Manganese | 280 | MB | 80.0 | 325 | LN | ug/L | | 55 | 80 - 120 | | |
| Selenium | 0.96 | J,DX | 80.0 | 57.0 | LN | ug/L | | 70 | 80 - 120 | | |
| Zinc | 56 | | 80.0 | 123 | | ug/L | | 83 | 80 - 120 | | |

Lab Sample ID: 570-165916-1 MSD
Matrix: Water
Analysis Batch: 397228

Client Sample ID: Outfall001_20231222_Comp
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Cadmium | 0.36 | J,DX | 80.0 | 81.2 | | ug/L | | 101 | 80 - 120 | 1 | 20 |
| Copper | 10 | | 80.0 | 85.8 | | ug/L | | 94 | 80 - 120 | 0 | 20 |
| Iron | 16000 | | 4000 | 17700 | BB | ug/L | | 40 | 80 - 120 | 1 | 20 |
| Lead | 9.4 | | 80.0 | 87.4 | | ug/L | | 97 | 80 - 120 | 0 | 20 |
| Manganese | 280 | MB | 80.0 | 323 | LN | ug/L | | 52 | 80 - 120 | 1 | 20 |
| Selenium | 0.96 | J,DX | 80.0 | 57.8 | LN | ug/L | | 71 | 80 - 120 | 1 | 20 |
| Zinc | 56 | | 80.0 | 123 | | ug/L | | 84 | 80 - 120 | 0 | 20 |

Lab Sample ID: MB 570-397913/1-A
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Method Blank
Prep Type: Dissolved

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | | 01/04/24 14:52 | 1 |
| Copper | ND | | 2.0 | 0.32 | ug/L | | | 01/04/24 14:52 | 1 |
| Iron | ND | | 20 | 3.7 | ug/L | | | 01/04/24 14:52 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | | 01/04/24 14:52 | 1 |
| Manganese | ND | | 1.0 | 0.41 | ug/L | | | 01/04/24 14:52 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | | 01/04/24 14:52 | 1 |
| Zinc | ND | | 20 | 2.8 | ug/L | | | 01/04/24 14:52 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-397913/2-A
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|------------|---------------|------|---|------|-------------|
| Cadmium | 80.0 | 78.5 | | ug/L | | 98 | 85 - 115 |
| Copper | 80.0 | 80.6 | | ug/L | | 101 | 85 - 115 |
| Iron | 4000 | 3960 | | ug/L | | 99 | 85 - 115 |
| Lead | 80.0 | 79.7 | | ug/L | | 100 | 85 - 115 |
| Manganese | 80.0 | 78.5 | | ug/L | | 98 | 85 - 115 |
| Selenium | 80.0 | 78.6 | | ug/L | | 98 | 85 - 115 |
| Zinc | 80.0 | 74.6 | | ug/L | | 93 | 85 - 115 |

Lab Sample ID: LCSD 570-397913/3-A
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Cadmium | 80.0 | 78.5 | | ug/L | | 98 | 85 - 115 | 0 | 20 |
| Copper | 80.0 | 79.9 | | ug/L | | 100 | 85 - 115 | 1 | 20 |
| Iron | 4000 | 3930 | | ug/L | | 98 | 85 - 115 | 1 | 20 |
| Lead | 80.0 | 78.2 | | ug/L | | 98 | 85 - 115 | 2 | 20 |
| Manganese | 80.0 | 78.1 | | ug/L | | 98 | 85 - 115 | 1 | 20 |
| Selenium | 80.0 | 77.6 | | ug/L | | 97 | 85 - 115 | 1 | 20 |
| Zinc | 80.0 | 74.7 | | ug/L | | 93 | 85 - 115 | 0 | 20 |

Lab Sample ID: 570-165916-3 MS
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Outfall001_20231222_Comp_F
Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Cadmium | ND | BU | 80.0 | 79.6 | BU | ug/L | | 99 | 80 - 120 |
| Copper | 2.1 | BU | 80.0 | 83.9 | BU | ug/L | | 102 | 80 - 120 |
| Iron | 680 | BU | 4000 | 4660 | BU | ug/L | | 99 | 80 - 120 |
| Lead | 0.36 | J,DX BU | 80.0 | 80.9 | BU | ug/L | | 101 | 80 - 120 |
| Manganese | 10 | BU | 80.0 | 89.8 | BU | ug/L | | 99 | 80 - 120 |
| Selenium | ND | BU | 80.0 | 79.7 | BU | ug/L | | 100 | 80 - 120 |
| Zinc | 3.2 | J,DX BU | 80.0 | 77.5 | BU | ug/L | | 93 | 80 - 120 |

Lab Sample ID: 570-165916-3 MSD
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Outfall001_20231222_Comp_F
Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Cadmium | ND | BU | 80.0 | 79.4 | BU | ug/L | | 99 | 80 - 120 | 0 | 20 |
| Copper | 2.1 | BU | 80.0 | 83.4 | BU | ug/L | | 102 | 80 - 120 | 1 | 20 |
| Iron | 680 | BU | 4000 | 4710 | BU | ug/L | | 101 | 80 - 120 | 1 | 20 |
| Lead | 0.36 | J,DX BU | 80.0 | 80.1 | BU | ug/L | | 100 | 80 - 120 | 1 | 20 |
| Manganese | 10 | BU | 80.0 | 89.5 | BU | ug/L | | 99 | 80 - 120 | 0 | 20 |
| Selenium | ND | BU | 80.0 | 78.8 | BU | ug/L | | 99 | 80 - 120 | 1 | 20 |
| Zinc | 3.2 | J,DX BU | 80.0 | 76.8 | BU | ug/L | | 92 | 80 - 120 | 1 | 20 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 570-399987/1-A
Matrix: Water
Analysis Batch: 400677

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 399987

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/10/24 13:26 | 01/12/24 12:03 | 1 |

Lab Sample ID: LCS 570-399987/2-A
Matrix: Water
Analysis Batch: 400677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 399987

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Mercury | 8.00 | 6.98 | | ug/L | | 87 | 85 - 115 |

Lab Sample ID: LCSD 570-399987/3-A
Matrix: Water
Analysis Batch: 400677

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 399987

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Mercury | 8.00 | 7.29 | | ug/L | | 91 | 85 - 115 | 4 | 10 |

Lab Sample ID: 570-165916-1 MS
Matrix: Water
Analysis Batch: 400677

Client Sample ID: Outfall001_20231222_Comp
Prep Type: Total/NA
Prep Batch: 399987

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Mercury | ND | | 8.00 | 7.94 | | ug/L | | 99 | 85 - 115 |

Lab Sample ID: 570-165916-1 MSD
Matrix: Water
Analysis Batch: 400677

Client Sample ID: Outfall001_20231222_Comp
Prep Type: Total/NA
Prep Batch: 399987

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Mercury | ND | | 8.00 | 7.89 | | ug/L | | 99 | 85 - 115 | 1 | 10 |

Lab Sample ID: MB 570-399609/1-B
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 399656

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/09/24 15:13 | 01/10/24 13:22 | 1 |

Lab Sample ID: LCS 570-399609/2-B
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 399656

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Mercury | 8.00 | 8.16 | | ug/L | | 102 | 85 - 115 |

Lab Sample ID: LCSD 570-399609/3-B
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 399656

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Mercury | 8.00 | 8.25 | | ug/L | | 103 | 85 - 115 | 1 | 10 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: 570-165916-3 MS
 Matrix: Water
 Analysis Batch: 399960

Client Sample ID: Outfall001_20231222_Comp_F
 Prep Type: Dissolved
 Prep Batch: 399656

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Mercury | ND | BU | 8.00 | 7.74 | BU | ug/L | | 97 | 85 - 115 |

Lab Sample ID: 570-165916-3 MSD
 Matrix: Water
 Analysis Batch: 399960

Client Sample ID: Outfall001_20231222_Comp_F
 Prep Type: Dissolved
 Prep Batch: 399656

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-------|
| Mercury | ND | BU | 8.00 | 8.05 | BU | ug/L | | 101 | 85 - 115 | 4 | 10 |

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 570-398793/5-A
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-------|-------|------|---|----------------|----------------|---------|
| Ammonia | ND | | 0.075 | 0.029 | mg/L | | 01/05/24 09:38 | 01/05/24 12:01 | 1 |

Lab Sample ID: LCS 570-398793/6-A
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Ammonia | 0.500 | 0.476 | | mg/L | | 95 | 90 - 110 |

Lab Sample ID: LCSD 570-398793/7-A
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-------|
| Ammonia | 0.500 | 0.467 | | mg/L | | 93 | 90 - 110 | 2 | 20 |

Method: Kelada 01 - Cyanide, Total, Acid Dissociable and Thiocyanate

Lab Sample ID: MB 570-398571/11
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Cyanide, Total | ND | | 5.0 | 2.5 | ug/L | | | 01/04/24 14:13 | 1 |

Lab Sample ID: LCS 570-398571/12
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|------------|---------------|------|---|------|-------------|
| Cyanide, Total | 250 | 245 | | ug/L | | 98 | 90 - 110 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: Kelada 01 - Cyanide, Total, Acid Dissociable and Thiocyanate (Continued)

Lab Sample ID: LCSD 570-398571/13
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Cyanide, Total | 250 | 246 | | ug/L | | 98 | 90 - 110 | 0 | 20 |

Lab Sample ID: MRL 570-398571/10
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Cyanide, Total | 5.00 | 5.48 | | ug/L | | 110 | 50 - 150 | | |

Method: SM 2130B - Turbidity

Lab Sample ID: LCSSRM 570-396020/1
 Matrix: Water
 Analysis Batch: 396020

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|-------------|---------------|------------------|------|---|------|--------------|-----|-----------|
| Turbidity | 800 | 800 | | NTU | | 99.6 | 95.0 - 105.0 | | |

Lab Sample ID: LCSSRM 570-396020/2
 Matrix: Water
 Analysis Batch: 396020

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|-------------|---------------|------------------|------|---|-------|--------------|-----|-----------|
| Turbidity | 20.0 | 20 | | NTU | | 100.5 | 95.0 - 105.0 | | |

Lab Sample ID: LCSSRM 570-396020/3
 Matrix: Water
 Analysis Batch: 396020

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|-------------|---------------|------------------|------|---|------|-------------|-----|-----------|
| Turbidity | 0.0200 | ND | | NTU | | 50.0 | 0.0 - 200.0 | | |

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-396762/1
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|----|-----|------|---|----------|----------------|---------|
| Total Dissolved Solids | ND | | 10 | 8.7 | mg/L | | | 12/28/23 12:15 | 1 |

Lab Sample ID: LCS 570-396762/2
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Total Dissolved Solids | 1000 | 1040 | | mg/L | | 104 | 84 - 108 | | |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCSD 570-396762/3
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Total Dissolved Solids | 1000 | 1060 | | mg/L | | 106 | 84 - 108 | 1 | 10 |

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-396532/1
 Matrix: Water
 Analysis Batch: 396532

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Suspended Solids | ND | | 1.0 | 0.80 | mg/L | | | 12/27/23 19:07 | 1 |

Lab Sample ID: LCS 570-396532/2
 Matrix: Water
 Analysis Batch: 396532

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Suspended Solids | 100 | 91.0 | | mg/L | | 91 | 77 - 116 |

Lab Sample ID: LCSD 570-396532/3
 Matrix: Water
 Analysis Batch: 396532

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Total Suspended Solids | 100 | 91.0 | | mg/L | | 91 | 77 - 116 | 0 | 10 |

Lab Sample ID: 570-165916-1 DU
 Matrix: Water
 Analysis Batch: 396532

Client Sample ID: Outfall001_20231222_Comp
 Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|------------------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Total Suspended Solids | 270 | | 249 | | mg/L | | 6 | 10 |

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 570-396027/1-A
 Matrix: Water
 Analysis Batch: 396884

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 396027

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|------------|---------------|-----|-----|------|---|----------------|----------------|---------|
| Biochemical Oxygen Demand | ND | | 2.0 | 1.0 | mg/L | | 12/23/23 10:12 | 12/28/23 13:32 | 1 |

Lab Sample ID: LCS 570-396027/3-A
 Matrix: Water
 Analysis Batch: 396884

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 396027

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------------|-------------|------------|---------------|------|---|------|--------------|
| Biochemical Oxygen Demand | 199 | 190 | | mg/L | | 95 | 84.6 - 115.4 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 570-396034/5-A
Matrix: Water
Analysis Batch: 396050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396034

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| MBAS | ND | | 0.20 | 0.050 | mg/L | | 12/23/23 10:10 | 12/23/23 11:39 | 1 |

Lab Sample ID: LCS 570-396034/6-A
Matrix: Water
Analysis Batch: 396050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396034

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| MBAS | 0.500 | 0.560 | | mg/L | | 112 | 83 - 122 |

Lab Sample ID: LCSD 570-396034/7-A
Matrix: Water
Analysis Batch: 396050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 396034

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| MBAS | 0.500 | 0.571 | | mg/L | | 114 | 83 - 122 | 2 | 10 |

QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

GC/MS Semi VOA

Prep Batch: 397007

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 625 | |
| MB 570-397007/1-A | Method Blank | Total/NA | Water | 625 | |
| LCS 570-397007/2-A | Lab Control Sample | Total/NA | Water | 625 | |
| LCSD 570-397007/3-A | Lab Control Sample Dup | Total/NA | Water | 625 | |

Analysis Batch: 398733

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|-----------|------------|
| MB 570-397007/1-A | Method Blank | Total/NA | Water | 625.1 SIM | 397007 |

Analysis Batch: 399510

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 625.1 SIM | 397007 |
| LCS 570-397007/2-A | Lab Control Sample | Total/NA | Water | 625.1 SIM | 397007 |
| LCSD 570-397007/3-A | Lab Control Sample Dup | Total/NA | Water | 625.1 SIM | 397007 |

GC Semi VOA

Prep Batch: 398410

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 608 | |
| MB 570-398410/1-A | Method Blank | Total/NA | Water | 608 | |
| LCS 570-398410/2-A | Lab Control Sample | Total/NA | Water | 608 | |
| LCSD 570-398410/3-A | Lab Control Sample Dup | Total/NA | Water | 608 | |

Analysis Batch: 399037

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| MB 570-398410/1-A | Method Blank | Total/NA | Water | 608.3 | 398410 |

Analysis Batch: 399059

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 608.3 | 398410 |
| LCS 570-398410/2-A | Lab Control Sample | Total/NA | Water | 608.3 | 398410 |
| LCSD 570-398410/3-A | Lab Control Sample Dup | Total/NA | Water | 608.3 | 398410 |

HPLC/IC

Analysis Batch: 395973

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 300.0 | |
| MB 570-395973/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-395973/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 570-395973/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |

Analysis Batch: 395974

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 300.0 | |
| MB 570-395974/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-395974/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 570-395974/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |

QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

HPLC/IC

Analysis Batch: 396303

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 314.0 | |
| MB 570-396303/31 | Method Blank | Total/NA | Water | 314.0 | |
| LCS 570-396303/32 | Lab Control Sample | Total/NA | Water | 314.0 | |
| LCSD 570-396303/33 | Lab Control Sample Dup | Total/NA | Water | 314.0 | |
| MRL 570-396303/1004 | Lab Control Sample | Total/NA | Water | 314.0 | |

Analysis Batch: 399041

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|-------------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | NO2NO3 Calc | |

Metals

Prep Batch: 396612

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-------------------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total Recoverable | Water | 200.8 | |
| MB 570-396612/1-A | Method Blank | Total Recoverable | Water | 200.8 | |
| LCS 570-396612/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 | |
| LCSD 570-396612/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 | |
| 570-165916-1 MS | Outfall001_20231222_Comp | Total Recoverable | Water | 200.8 | |
| 570-165916-1 MSD | Outfall001_20231222_Comp | Total Recoverable | Water | 200.8 | |

Analysis Batch: 397228

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------------|-------------------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total Recoverable | Water | 200.8 | 396612 |
| 570-165916-1 MS | Outfall001_20231222_Comp | Total Recoverable | Water | 200.8 | 396612 |
| 570-165916-1 MSD | Outfall001_20231222_Comp | Total Recoverable | Water | 200.8 | 396612 |

Analysis Batch: 397364

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-------------------|--------|--------|------------|
| MB 570-396612/1-A | Method Blank | Total Recoverable | Water | 200.8 | 396612 |
| LCS 570-396612/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 | 396612 |
| LCSD 570-396612/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 | 396612 |

Filtration Batch: 397913

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|------------|------------|
| 570-165916-3 | Outfall001_20231222_Comp_F | Dissolved | Water | Filtration | |
| MB 570-397913/1-A | Method Blank | Dissolved | Water | Filtration | |
| LCS 570-397913/2-A | Lab Control Sample | Dissolved | Water | Filtration | |
| LCSD 570-397913/3-A | Lab Control Sample Dup | Dissolved | Water | Filtration | |
| 570-165916-3 MS | Outfall001_20231222_Comp_F | Dissolved | Water | Filtration | |
| 570-165916-3 MSD | Outfall001_20231222_Comp_F | Dissolved | Water | Filtration | |

Analysis Batch: 398534

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165916-3 | Outfall001_20231222_Comp_F | Dissolved | Water | 200.8 | 397913 |
| MB 570-397913/1-A | Method Blank | Dissolved | Water | 200.8 | 397913 |
| LCS 570-397913/2-A | Lab Control Sample | Dissolved | Water | 200.8 | 397913 |
| LCSD 570-397913/3-A | Lab Control Sample Dup | Dissolved | Water | 200.8 | 397913 |
| 570-165916-3 MS | Outfall001_20231222_Comp_F | Dissolved | Water | 200.8 | 397913 |
| 570-165916-3 MSD | Outfall001_20231222_Comp_F | Dissolved | Water | 200.8 | 397913 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Metals

Filtration Batch: 399609

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|------------|------------|
| 570-165916-3 | Outfall001_20231222_Comp_F | Dissolved | Water | Filtration | |
| MB 570-399609/1-B | Method Blank | Dissolved | Water | Filtration | |
| LCS 570-399609/2-B | Lab Control Sample | Dissolved | Water | Filtration | |
| LCSD 570-399609/3-B | Lab Control Sample Dup | Dissolved | Water | Filtration | |
| 570-165916-3 MS | Outfall001_20231222_Comp_F | Dissolved | Water | Filtration | |
| 570-165916-3 MSD | Outfall001_20231222_Comp_F | Dissolved | Water | Filtration | |

Prep Batch: 399656

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165916-3 | Outfall001_20231222_Comp_F | Dissolved | Water | 245.1 | 399609 |
| MB 570-399609/1-B | Method Blank | Dissolved | Water | 245.1 | 399609 |
| LCS 570-399609/2-B | Lab Control Sample | Dissolved | Water | 245.1 | 399609 |
| LCSD 570-399609/3-B | Lab Control Sample Dup | Dissolved | Water | 245.1 | 399609 |
| 570-165916-3 MS | Outfall001_20231222_Comp_F | Dissolved | Water | 245.1 | 399609 |
| 570-165916-3 MSD | Outfall001_20231222_Comp_F | Dissolved | Water | 245.1 | 399609 |

Analysis Batch: 399960

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165916-3 | Outfall001_20231222_Comp_F | Dissolved | Water | 245.1 | 399656 |
| MB 570-399609/1-B | Method Blank | Dissolved | Water | 245.1 | 399656 |
| LCS 570-399609/2-B | Lab Control Sample | Dissolved | Water | 245.1 | 399656 |
| LCSD 570-399609/3-B | Lab Control Sample Dup | Dissolved | Water | 245.1 | 399656 |
| 570-165916-3 MS | Outfall001_20231222_Comp_F | Dissolved | Water | 245.1 | 399656 |
| 570-165916-3 MSD | Outfall001_20231222_Comp_F | Dissolved | Water | 245.1 | 399656 |

Prep Batch: 399987

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 245.1 | |
| MB 570-399987/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 570-399987/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 570-399987/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 570-165916-1 MS | Outfall001_20231222_Comp | Total/NA | Water | 245.1 | |
| 570-165916-1 MSD | Outfall001_20231222_Comp | Total/NA | Water | 245.1 | |

Analysis Batch: 400677

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 245.1 | 399987 |
| MB 570-399987/1-A | Method Blank | Total/NA | Water | 245.1 | 399987 |
| LCS 570-399987/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 399987 |
| LCSD 570-399987/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 399987 |
| 570-165916-1 MS | Outfall001_20231222_Comp | Total/NA | Water | 245.1 | 399987 |
| 570-165916-1 MSD | Outfall001_20231222_Comp | Total/NA | Water | 245.1 | 399987 |

General Chemistry

Analysis Batch: 396020

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | SM 2130B | |
| LCSSRM 570-396020/1 | Lab Control Sample | Total/NA | Water | SM 2130B | |
| LCSSRM 570-396020/2 | Lab Control Sample | Total/NA | Water | SM 2130B | |
| LCSSRM 570-396020/3 | Lab Control Sample | Total/NA | Water | SM 2130B | |

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QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

General Chemistry

Prep Batch: 396027

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | BOD Prep | |
| USB 570-396027/1-A | Method Blank | Total/NA | Water | BOD Prep | |
| LCS 570-396027/3-A | Lab Control Sample | Total/NA | Water | BOD Prep | |

Prep Batch: 396034

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | SM 5540C | |
| MB 570-396034/5-A | Method Blank | Total/NA | Water | SM 5540C | |
| LCS 570-396034/6-A | Lab Control Sample | Total/NA | Water | SM 5540C | |
| LCSD 570-396034/7-A | Lab Control Sample Dup | Total/NA | Water | SM 5540C | |

Analysis Batch: 396050

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | SM 5540C | 396034 |
| MB 570-396034/5-A | Method Blank | Total/NA | Water | SM 5540C | 396034 |
| LCS 570-396034/6-A | Lab Control Sample | Total/NA | Water | SM 5540C | 396034 |
| LCSD 570-396034/7-A | Lab Control Sample Dup | Total/NA | Water | SM 5540C | 396034 |

Analysis Batch: 396532

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | SM 2540D | |
| MB 570-396532/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 570-396532/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 570-396532/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |
| 570-165916-1 DU | Outfall001_20231222_Comp | Total/NA | Water | SM 2540D | |

Analysis Batch: 396762

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | SM 2540C | |
| MB 570-396762/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 570-396762/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 570-396762/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |

Analysis Batch: 396884

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | SM 5210B | 396027 |
| USB 570-396027/1-A | Method Blank | Total/NA | Water | SM 5210B | 396027 |
| LCS 570-396027/3-A | Lab Control Sample | Total/NA | Water | SM 5210B | 396027 |

Analysis Batch: 398571

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | Kelada 01 | |
| MB 570-398571/11 | Method Blank | Total/NA | Water | Kelada 01 | |
| LCS 570-398571/12 | Lab Control Sample | Total/NA | Water | Kelada 01 | |
| LCSD 570-398571/13 | Lab Control Sample Dup | Total/NA | Water | Kelada 01 | |
| MRL 570-398571/10 | Lab Control Sample | Total/NA | Water | Kelada 01 | |

Prep Batch: 398793

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|-----------------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | Distill/Ammonia | |
| MB 570-398793/5-A | Method Blank | Total/NA | Water | Distill/Ammonia | |

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QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

General Chemistry (Continued)

Prep Batch: 398793 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|-----------------|------------|
| LCS 570-398793/6-A | Lab Control Sample | Total/NA | Water | Distill/Ammonia | |
| LCSD 570-398793/7-A | Lab Control Sample Dup | Total/NA | Water | Distill/Ammonia | |

Analysis Batch: 398797

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 350.1 | 398793 |
| MB 570-398793/5-A | Method Blank | Total/NA | Water | 350.1 | 398793 |
| LCS 570-398793/6-A | Lab Control Sample | Total/NA | Water | 350.1 | 398793 |
| LCSD 570-398793/7-A | Lab Control Sample Dup | Total/NA | Water | 350.1 | 398793 |

- 1
- 2
- 3
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- 14
- 15

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Client Sample ID: Outfall001_20231222_Comp

Lab Sample ID: 570-165916-1

Date Collected: 12/22/23 09:35

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|-------------------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Prep | 625 | | | 1036.7 mL | 2 mL | 397007 | 12/29/23 14:23 | TR8L | EET CAL 4 |
| Total/NA | Analysis | 625.1 SIM | | 1 | 1 mL | 1 mL | 399510 | 01/09/24 18:26 | ULLI | EET CAL 4 |
| | | Instrument ID: GCMSJJJ | | | | | | | | |
| Total/NA | Prep | 608 | | | 1500 mL | 1 mL | 398410 | 12/27/23 13:08 | USUL | EET CAL 4 |
| Total/NA | Analysis | 608.3 | | 1 | 1 mL | 1 mL | 399059 | 01/08/24 09:50 | N5Y3 | EET CAL 4 |
| | | Instrument ID: GC54A | | | | | | | | |
| Total/NA | Analysis | 300.0 | | 1 | 4 mL | 4 mL | 395973 | 12/23/23 09:17 | UIP1 | EET CAL 4 |
| | | Instrument ID: IC9 | | | | | | | | |
| Total/NA | Analysis | 300.0 | | 1 | 4 mL | 4 mL | 395974 | 12/23/23 09:17 | UIP1 | EET CAL 4 |
| | | Instrument ID: IC9 | | | | | | | | |
| Total/NA | Analysis | 314.0 | | 1 | 4 mL | 4 mL | 396303 | 12/28/23 07:57 | M5Z3 | EET CAL 4 |
| | | Instrument ID: IC8 | | | | | | | | |
| Total/NA | Analysis | NO2NO3 Calc | | 1 | | | 399041 | 12/23/23 09:17 | URMH | EET CAL 4 |
| | | Instrument ID: IC9 | | | | | | | | |
| Total Recoverable | Prep | 200.8 | | | 50 mL | 50 mL | 396612 | 12/28/23 07:02 | RL6Q | EET CAL 4 |
| Total Recoverable | Analysis | 200.8 | | 1 | | | 397228 | 12/29/23 12:38 | P1R | EET CAL 4 |
| | | Instrument ID: ICPMS09 | | | | | | | | |
| Total/NA | Prep | 245.1 | | | 25 g | 50 mL | 399987 | 01/10/24 13:26 | ECX6 | EET CAL 4 |
| Total/NA | Analysis | 245.1 | | 1 | | | 400677 | 01/12/24 12:21 | RL6Q | EET CAL 4 |
| | | Instrument ID: HG8 | | | | | | | | |
| Total/NA | Prep | Distill/Ammonia | | | 5 mL | 5 mL | 398793 | 01/05/24 09:38 | UXCH | EET CAL 4 |
| Total/NA | Analysis | 350.1 | | 1 | 5 mL | 5 mL | 398797 | 01/05/24 12:13 | UXCH | EET CAL 4 |
| | | Instrument ID: ACA2 | | | | | | | | |
| Total/NA | Analysis | Kelada 01 | | 1 | 8 mL | 8 mL | 398571 | 01/04/24 15:53 | GG0B | EET CAL 4 |
| | | Instrument ID: LACHAT01 | | | | | | | | |
| Total/NA | Analysis | SM 2130B | | 1 | | | 396020 | 12/23/23 09:57 | ZVB7 | EET CAL 4 |
| | | Instrument ID: TUR5 | | | | | | | | |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 1000 mL | 396762 | 12/28/23 12:15 | GG0B | EET CAL 4 |
| | | Instrument ID: BAL100 | | | | | | | | |
| Total/NA | Analysis | SM 2540D | | 1 | 100 mL | 1000 mL | 396532 | 12/27/23 19:07 | JB | EET CAL 4 |
| | | Instrument ID: NOEQUIP | | | | | | | | |
| Total/NA | Prep | BOD Prep | | | | | 396027 | 12/23/23 10:12 | TN8Z | EET CAL 4 |
| Total/NA | Analysis | SM 5210B | | 1 | 300 mL | 300 mL | 396884 | 12/28/23 14:44 | TN8Z | EET CAL 4 |
| | | Instrument ID: BOD3 | | | | | | | | |
| Total/NA | Prep | SM 5540C | | | 100 mL | 100 mL | 396034 | 12/23/23 10:10 | ZVB7 | EET CAL 4 |
| Total/NA | Analysis | SM 5540C | | 1 | 100 mL | 100 mL | 396050 | 12/23/23 11:45 | ZVB7 | EET CAL 4 |
| | | Instrument ID: UV8 | | | | | | | | |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Client Sample ID: Outfall001_20231222_Comp_F

Lab Sample ID: 570-165916-3

Date Collected: 12/22/23 09:35

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|------------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Dissolved | Filtration | Filtration | | | 50 mL | 50 mL | 397913 | 01/03/24 08:42 | JP8N | EET CAL 4 |
| Dissolved | Analysis | 200.8 | | 1 | | | 398534 | 01/04/24 15:41 | P1R | EET CAL 4 |
| Instrument ID: ICPMS09 | | | | | | | | | | |
| Dissolved | Filtration | Filtration | | | 25 mL | 25 mL | 399609 | 01/09/24 13:29 | JP8N | EET CAL 4 |
| Dissolved | Prep | 245.1 | | | 25 mL | 50 mL | 399656 | 01/09/24 15:13 | EV3M | EET CAL 4 |
| Dissolved | Analysis | 245.1 | | 1 | | | 399960 | 01/10/24 13:38 | ECX6 | EET CAL 4 |
| Instrument ID: HG9 | | | | | | | | | | |

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| <u>Authority</u> | <u>Program</u> | <u>Identification Number</u> | <u>Expiration Date</u> |
|------------------|---|------------------------------|------------------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

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Method Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

| Method | Method Description | Protocol | Laboratory |
|-----------------|--|----------|------------|
| 625.1 SIM | Semivolatile Organic Compounds GC/MS (SIM) | EPA | EET CAL 4 |
| 608.3 | Organochlorine Pesticides in Water | EPA | EET CAL 4 |
| 300.0 | Anions, Ion Chromatography | EPA | EET CAL 4 |
| 314.0 | Perchlorate (IC) | EPA | EET CAL 4 |
| NO2NO3 Calc | Nitrogen, Nitrate-Nitrite | EPA | EET CAL 4 |
| 200.8 | Metals (ICP/MS) | EPA | EET CAL 4 |
| 245.1 | Mercury (CVAA) | EPA | EET CAL 4 |
| 350.1 | Nitrogen, Ammonia | EPA | EET CAL 4 |
| Kelada 01 | Cyanide, Total, Acid Dissociable and Thiocyanate | EPA | EET CAL 4 |
| SM 2130B | Turbidity | SM | EET CAL 4 |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET CAL 4 |
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET CAL 4 |
| SM 5210B | BOD, 5-Day | SM | EET CAL 4 |
| SM 5540C | Methylene Blue Active Substances (MBAS) | SM | EET CAL 4 |
| 200.8 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 245.1 | Preparation, Mercury | EPA | EET CAL 4 |
| 608 | Liquid-Liquid Extraction (Separatory Funnel) | EPA | EET CAL 4 |
| 625 | Liquid-Liquid Extraction | EPA | EET CAL 4 |
| BOD Prep | Preparation, BOD | SM | EET CAL 4 |
| Distill/Ammonia | Distillation, Ammonia | None | EET CAL 4 |
| Filtration | Sample Filtration | None | EET CAL 4 |
| SM 5540C | Preparation, Methylene Blue Active Substances (MBAS) | SM | EET CAL 4 |

Protocol References:

- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

- EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-1

| <u>Lab Sample ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Collected</u> | <u>Received</u> |
|----------------------|----------------------------|---------------|------------------|-----------------|
| 570-165916-1 | Outfall001_20231222_Comp | Water | 12/22/23 09:35 | 12/22/23 17:30 |
| 570-165916-3 | Outfall001_20231222_Comp_F | Water | 12/22/23 09:35 | 12/22/23 17:30 |

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Revised COC received from Victoria Pehlivan (H&A) on 12/26/23 @ 15:35pm. - Virendra (ECI)

165916
remove
should be on grab COC

CHAIN OF CUSTODY FORM

Eurofins Calscience Tustin

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|--|---|--|---|--|--|--|--|--|---|--|------------------------------------|--|----------------------|--|--------------------------------------|--|---------------------|--|--------------------|--|
| <p>Client Name/Address: Halley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108</p> | | <p>Project: Boeing SSFL NPDES Permit 2023 Quarterly Outfall 001, 002, 011, 018 Outfall 001 Comp</p> | | <p>Project Manager: Katherine Miller 520.289.8606, 520.904.6844 (cell) Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)</p> | | <p>Sample Description: Outfall 001</p> | | <p>Sample I.D.: Outfall001_20231222_Comp</p> | | <p>Sampling Date/Time: 12/22/2023 0935</p> | | <p>Sample Matrix: WM</p> | | <p>Container Type: 500 mL Poly</p> | | <p># of Cont.: 1</p> | | <p>Preservative: HNO₃</p> | | <p>Bottle #: 90</p> | | <p>MSM/SD: Yes</p> | |
| <p>Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187</p> | | <p>Eurofins Calscience's services under this COC shall be performed in accordance with the TCS within Blanket Service Agreement #2022-24-Eurofins by and between Halley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.</p> | | <p>Sampler: Adrien Mobeka</p> | | <p>Comments: Outfall 001 analyze for Fe Outfall 001 analyze for Mn and Fe</p> | | <p>Analysis Required:</p> | | <p>Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: _____ X _____ 48 Hour: _____ 5 Day: _____ Normal: _____</p> | | <p>Barcode: 570-165916 Chain of Custody</p> | | | | | | | | | | | |

Legend: C=Conditional, EP=Expert Panel, R=Routine

Received By: *[Signature]* Date/Time: 12/22/23 1730
 Received By: *[Signature]* Date/Time: 12/22/23 1730
 Received By: *[Signature]* Date/Time: 12/22/23 1730

Company: *[Signature]* Date/Time: 12/21/2023/1252
 Company: *[Signature]* Date/Time: 12/22/23 1730
 Company: *[Signature]* Date/Time: 12/22/23 1730

1.8/2.2 1.2/1.6 2.0/2.4 5.1/4



165916

H4MW

Eurofins Calscience Tustin

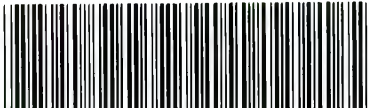
CHAIN OF CUSTODY FORM

R R R R R R R/EP R R R R R C

| | | | | | | | | | | | | | | | | | | |
|--|--|---|--|---|-----------------------------------|---|-------------------------------------|--|---------------------------------|-----------------------|-------------------|------------------|--|--|---|--|------------------------|----------|
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 001 Comp | | ANALYSIS REQUIRED | | | | | | | | | | | | | | |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | Total Recoverable Metals: (E200.6); Zn (E200.6); Cu, Pb, Cd, Se | TCDD (and all congeners) (E1619B) | BOD5 (20 degrees C) (E405.1 (SM6210B_BODCalc)) | Surfactants (MBAS) (SM5540C/E425.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2 (SM2540D)) | Ammonia-N (950.2) | alpha-BHC (E608) | 2,4,6-TCP, 2,4-Dinitrofluorene, Bis(2- ethylhexyl)phthalate, NDMA, PCP (SVOCs E625) | Total Recoverable Metals: Mercury (E245.1) | Total Recoverable Metals: (E200.8); Mn, Fe | VOCs - 2CME only (E624) Week Labs in Haclenda Heights, CA | VOCs - A+A only (E624) | Comments |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement #2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | | | | | |
| Sampler: Adrien Mobeka | | | | | | | | | | | | | | | | | | |

| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MSMSD | Total Recoverable Metals: (E200.6); Zn (E200.6); Cu, Pb, Cd, Se | TCDD (and all congeners) (E1619B) | BOD5 (20 degrees C) (E405.1 (SM6210B_BODCalc)) | Surfactants (MBAS) (SM5540C/E425.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2 (SM2540D)) | Ammonia-N (950.2) | alpha-BHC (E608) | 2,4,6-TCP, 2,4-Dinitrofluorene, Bis(2- ethylhexyl)phthalate, NDMA, PCP (SVOCs E625) | Total Recoverable Metals: Mercury (E245.1) | Total Recoverable Metals: (E200.8); Mn, Fe | VOCs - 2CME only (E624) Week Labs in Haclenda Heights, CA | VOCs - A+A only (E624) | Comments | | | | | |
|--------------------|--------------------------------|--------------------|---------------|-----------------|------------|--------------|----------|-------|---|-----------------------------------|---|-------------------------------------|--|---------------------------------|-----------------------|-------------------|------------------|--|--|---|--|------------------------|---|------|------|-------------------------------------|--|--|
| Outfall 001 | Outfall001_20231222_Comp | 12/22/2023 0935 | WM | 500 mL Poly | 1 | HNO3 | 90 | Yes | X | | | | | | | | | | X | X | | | Outfall 001 analyze for Fe Outfall 001 analyze for Mn and Fe | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | X | | | | | | | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 115 | No | | | X | | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | X | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | X | | | | | | | | | | | | 48 hours Holding Time NO3 & NO2 | | |
| | | | WM | 500 mL Poly | 1 | None | 150 | No | | | | | | | X | | | | | | | | | | | 48 hours Holding Time for Turbidity | | |
| | | | WM | 500 mL Poly | 1 | H2SO4 | 160 | No | | | | | | | | | | X | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | | X | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 185 | No | | | | | | | | | X | | | | | | | | | | | |
| 2 | Outfall001_20231222_Comp_Extra | 12/22/2023 0935 | WM | 1 L Glass Amber | 2 | None | 110 | No | | H | | | | | | | | | | | | | | Hold | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | H | | | | | | | | | | | | | Hold | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | H | | | | | | | | | | | | Hold | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | H | | | | | | Hold | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | H | | | | | Hold | | |

Legend: C=Conditional, EP=Expert Panel, R=Routine

| | | |
|---|---|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12-21-2023/1252 Company: H&A | Received By: <i>[Signature]</i> EC Date/Time: 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> _____ 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> EC Date/Time: 12/22/23 1730 Company: | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 |  |
| Relinquished By: _____ Date/Time: _____ Company: | Received By: _____ Date/Time: _____ | |

1.8/2.2 1.2/1.6 2.0/2.4 SC14

570-165916 Chain of Custody

CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 001 Comp | | | | | | | ANALYSIS REQUIRED | | | | | | | | | | Comments | | | |
|--|----------------------------|---|---------------|--------------------|------------|------------------|----------|--------|--|---|---|-------------------------------|--|---|--|--|--|---|--|--|--|--|
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | | | | Total Dissolved Metals: (E200.B): Zn (E200.B): Cu, Pb, Cd, Se Cyanide (SM4500-CNE / E335.2) Gross Alpha (E900.0), Gross Beta (E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | Total Dissolved Metals: (E200.B): Mn, Fe | | | | | | | | | | | | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs with Standard Service Agreement 2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | | | | | | | | | |
| Sampler: Adrien Mobecka | | | | | | | | | | | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | | | Total Dissolved Metals: (E200.B): Zn (E200.B): Cu, Pb, Cd, Se | Cyanide (SM4500-CNE / E335.2) | Gross Alpha (E900.0), Gross Beta (E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | Total Dissolved Metals: (E200.B): Mn, Fe | | | | | | | | |
| Outfall 001 | Outfall001_20231222_Comp_F | 12/22/2023 / 0935 | WM | 1 L Poly | 1 | None | 190 | Yes | X | | | | | | | | | Filter and preserve w/in 24hrs of receipt at lab | | | | |
| | | | WM | 500 mL Poly | 1 | HNO ₃ | 80 | No | | | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 200 | No | | | | | | X | | | | | Filter and preserve w/in 24hrs of receipt at lab. Outfall 001 analyze for Fe | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 250 | No | | | | | | | | | | | | | | |
| | Outfall001_20231222_Comp | 12/22/2023 / 0935 | WM | borosilicate vials | 2 | None | 320 | No | | | | | X | | | | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures | | | | |
| | | | WM | 500 mL Poly | 1 | NaOH | 220 | No | | X | | | | | | | | | | | | |
| | | | WM | 2.5 Gal Cube | 1 | None | 225 | No | | | | | | | | | | | Unfiltered and unpreserved analysis. Separate RAD onto another workorder. Analyze duplicate, not MS/MSD. | | | |
| WM | 1 L Glass Amber | 1 | None | 230 | No | | | | | X | | | | | | | | | | | | |

Legend: C=Conditional, EP=Expert Panel, R=Routine, QRSW=Quarterly Receiving Water

| | | |
|---|---|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12-21-2023 / 1252 Company: H&A | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1252 Company: EC | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> X 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/23 1730 Company: EC | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 Company: H&A | Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <input checked="" type="checkbox"/> X |

Chain of Custody Record



| | | | | | | | | | |
|---|--|--|--|---|--|---|--|---|--|
| Client Information (Sub Contract Lab) | | Sampler: Patel, Virendra | | Lab P/N: Patel, Virendra | | Carrier Tracking No(s): 570-334294.1 | | COC No: 570-334294.1 | |
| Client Contact: Virendra.Patel@et.eurofins.com | | Phone: | | E-Mail: Virendra.Patel@et.eurofins.com | | State of Origin: California | | Page: Page 1 of 1 | |
| Shipping/Receiving | | Company: Eurofins Environment Testing Northern Ca | | Accreditations Required (See note): State California; State Program California | | Job #: 570-165916-2 | | Preservation Codes: A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2OAS E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Y Trizma Other: Z other (specify) | |
| Due Date Requested: 1/16/2024 | | TAT Requested (days): | | Analysis Requested | | Total Number of Containers | | Special Instructions/Note: | |
| PO #: | | WO #: | | Project #: | | Field Filtered Sample (Yes or No) | | See OAS, Boeig_w/lu to zero, ug/L, Use Boeig glassware. | |
| Email: | | Project Name: | | Boeing NPDES SSFL Outfall 001 Comp | | Perform MS/MSD (Yes or No) | | See OAS, Boeig_w/lu to zero, ug/L, Use Boeig glassware. | |
| Site: | | Site: | | SSOW#: | | Tota | | Boeing glassware. | |
| Sample Identification - Client ID (Lab ID) | | Sample Date | | Sample Time | | Sample Type (C=Comp, G=grab) | | Matrix (Water, Solid, Overstabil) | |
| Outfall001_20231222_Comp (570-165916-1) | | 12/22/23 | | 09:35 Pacific | | Water | | Water | |
| Outfall001_20231222_Comp_Extra (570-165916-2) | | 12/22/23 | | 09:35 Pacific | | Water | | Water | |

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For **Months**

Special Instructions/QC Requirements:

Primary Deliverable Rank: 2

Empty Kit: Requiring by _____ Date: _____
 Received by: _____ Date/Time: _____
 Company: _____

Relinquished by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Company: _____

Relinquished by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Company: _____

Custody Seals Intact: Yes No
 Custody Seal No. _____
 Cooler Temperature(s) °C and Other Remarks: _____

Ver 06/08/2021

ICOC No:
570-334300

Containers

| <u>Count</u> | <u>Container Type</u> | <u>Preservative</u> |
|--------------|-----------------------------|---------------------|
| 3 | Voa Vial 40ml - unpreserved | None |

Subcontract Method Instructions

| Sample IDs | Method | Method Description | Method Comments |
|------------|-------------|-----------------------------|---------------------------------|
| 1 | SUBCONTRACT | SUB (VOCs-2CVE only (E624)) | Level IV package, MDL, EQUIS 5C |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165916-1

Login Number: 165916

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

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| 1 |
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| 16 |

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004
Generated 2/7/2024 11:55:29 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 001 - Comp

JOB NUMBER

570-165916-2

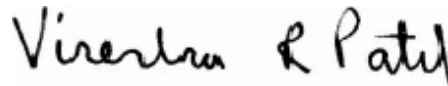
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Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Qualifiers

Dioxin

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| MB | Analyte present in the method blank |
| q | The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Job ID: 570-165916-2

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Job Narrative 570-165916-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6°C, 2.2°C and 2.4°C

Dioxin

Method 1613B: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD and 13C-1,2,3,7,8,9-HxCDD associated with the following samples run on instrument 10D5 exceeded this criteria: (CCV 320-737022/1), (LCS 320-734694/2-A), (LCSD 320-734694/3-A) and (MB 320-734694/1-A). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

Method 1613B: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD and 13C-1,2,3,7,8,9-HxCDD associated with the following samples run on instrument 10D5 exceeded this criteria: Outfall001_20231222_Comp (570-165916-1) and (CCV 320-737584/2). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Client Sample ID: Outfall001_20231222_Comp

Lab Sample ID: 570-165916-1

| Analyte | Result | Qualifier | RL | EDL | Unit | Dil Fac | D | Method | Prep Type |
|---------------------|------------|-----------|----------|-----------|------|---------|---|--------|-----------|
| 1,2,3,7,8-PeCDF | 0.0000040 | J,DX | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 3 | | | | | |
| 2,3,4,7,8-PeCDF | 0.0000033 | J,DX | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 6 | | | | | |
| 1,2,3,4,7,8-HxCDD | 0.0000019 | J,DX | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 5 | | | | | |
| 1,2,3,6,7,8-HxCDD | 0.0000015 | J,DX | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 6 | | | | | |
| 1,2,3,7,8,9-HxCDD | 0.00000099 | J,DX q | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 3 | | | | | |
| 1,2,3,4,7,8-HxCDF | 0.0000029 | J,DX | 0.000049 | 0.0000006 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 5 | | | | | |
| 1,2,3,6,7,8-HxCDF | 0.0000079 | J,DX | 0.000049 | 0.0000005 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 5 | | | | | |
| 1,2,3,7,8,9-HxCDF | 0.00000090 | J,DX q | 0.000049 | 0.0000004 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 8 | | | | | |
| 2,3,4,6,7,8-HxCDF | 0.0000027 | J,DX | 0.000049 | 0.0000004 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 8 | | | | | |
| 1,2,3,4,6,7,8-HpCDD | 0.0000035 | J,DX MB | 0.000049 | 0.0000005 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 7 | | | | | |
| 1,2,3,4,6,7,8-HpCDF | 0.0000034 | J,DX MB | 0.000049 | 0.0000006 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 1 | | | | | |
| 1,2,3,4,7,8,9-HpCDF | 0.0000074 | J,DX | 0.000049 | 0.0000006 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 0 | | | | | |
| OCDD | 0.00030 | MB | 0.000098 | 0.0000012 | ug/L | 1 | | 1613B | Total/NA |
| OCDF | 0.000045 | J,DX MB | 0.000098 | 0.0000006 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 0 | | | | | |
| Total PeCDF | 0.0000099 | J,DX q | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 5 | | | | | |
| Total HxCDD | 0.000010 | J,DX q | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 5 | | | | | |
| Total HxCDF | 0.000054 | J,DX q | 0.000049 | 0.0000005 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 4 | | | | | |
| Total HpCDD | 0.000069 | J,DX MB | 0.000049 | 0.0000005 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 7 | | | | | |
| Total HpCDF | 0.000061 | J,DX MB | 0.000049 | 0.0000006 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 0 | | | | | |

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS)

Client Sample ID: Outfall001_20231222_Comp

Date Collected: 12/22/23 09:35

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1

Matrix: Water

| Analyte | Result | Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------|-------------------|------------------|---------------|-----------|------|---|-----------------|-----------------|----------------|
| 2,3,7,8-TCDD | ND | | 0.0000098 | 0.0000009 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 2,3,7,8-TCDF | ND | | 0.0000098 | 0.0000005 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,7,8-PeCDD | ND | | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,7,8-PeCDF | 0.0000040 | J,DX | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 2,3,4,7,8-PeCDF | 0.0000033 | J,DX | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,4,7,8-HxCDD | 0.0000019 | J,DX | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,6,7,8-HxCDD | 0.0000015 | J,DX | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,7,8,9-HxCDD | 0.00000099 | J,DX q | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,4,7,8-HxCDF | 0.000029 | J,DX | 0.000049 | 0.0000006 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,6,7,8-HxCDF | 0.0000079 | J,DX | 0.000049 | 0.0000005 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,7,8,9-HxCDF | 0.00000090 | J,DX q | 0.000049 | 0.0000004 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 2,3,4,6,7,8-HxCDF | 0.0000027 | J,DX | 0.000049 | 0.0000004 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,4,6,7,8-HpCDD | 0.000035 | J,DX MB | 0.000049 | 0.0000005 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,4,6,7,8-HpCDF | 0.000034 | J,DX MB | 0.000049 | 0.0000006 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 1,2,3,4,7,8,9-HpCDF | 0.0000074 | J,DX | 0.000049 | 0.0000006 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| OCDD | 0.00030 | MB | 0.000098 | 0.0000012 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| OCDF | 0.000045 | J,DX MB | 0.000098 | 0.0000006 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| Total TCDD | ND | | 0.0000098 | 0.0000009 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| Total TCDF | ND | | 0.0000098 | 0.0000005 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| Total PeCDD | ND | | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| Total PeCDF | 0.0000099 | J,DX q | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| Total HxCDD | 0.000010 | J,DX q | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| Total HxCDF | 0.000054 | J,DX q | 0.000049 | 0.0000005 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| Total HpCDD | 0.000069 | J,DX MB | 0.000049 | 0.0000005 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| Total HpCDF | 0.000061 | J,DX MB | 0.000049 | 0.0000006 | ug/L | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| Isotope Dilution | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 13C-2,3,7,8-TCDD | 59 | | 25 - 164 | | | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-2,3,7,8-TCDF | 55 | | 24 - 169 | | | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-1,2,3,7,8-PeCDD | 90 | | 25 - 181 | | | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-1,2,3,7,8-PeCDF | 64 | | 24 - 185 | | | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-2,3,4,7,8-PeCDF | 61 | | 21 - 178 | | | | 01/19/24 08:46 | 02/01/24 13:20 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: Outfall001_20231222_Comp
Date Collected: 12/22/23 09:35
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1
Matrix: Water

| <u>Isotope Dilution</u> | <u>%Recovery</u> | <u>Qualifier</u> | <u>Limits</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Dil Fac</u> |
|-------------------------|------------------|------------------|---------------|-----------------|-----------------|----------------|
| 13C-1,2,3,4,7,8-HxCDD | 65 | | 32 - 141 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-1,2,3,6,7,8-HxCDD | 65 | | 28 - 130 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-1,2,3,4,7,8-HxCDF | 56 | | 26 - 152 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-1,2,3,6,7,8-HxCDF | 56 | | 26 - 123 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-1,2,3,7,8,9-HxCDF | 59 | | 29 - 147 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-2,3,4,6,7,8-HxCDF | 59 | | 28 - 136 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDD | 60 | | 23 - 140 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDF | 53 | | 28 - 143 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-1,2,3,4,7,8,9-HpCDF | 58 | | 26 - 138 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-OCDD | 59 | | 17 - 157 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| 13C-OCDF | 58 | | 17 - 157 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |
| | | | | | | |
| <u>Surrogate</u> | <u>%Recovery</u> | <u>Qualifier</u> | <u>Limits</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Dil Fac</u> |
| 37Cl4-2,3,7,8-TCDD | 84 | | 35 - 197 | 01/19/24 08:46 | 02/01/24 13:20 | 1 |

Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | 37TCDD (35-197) |
|-------------------|--------------------------|--------------------|
| 570-165916-1 | Outfall001_20231222_Comp | 84 |
| MB 320-734694/1-A | Method Blank | 87 |

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | 37TCDD (31-191) |
|---------------------|------------------------|--------------------|
| LCS 320-734694/2-A | Lab Control Sample | 89 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 88 |

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCDD (25-164) | TCDF (24-169) | PeCDD (25-181) | PeCDF (24-185) | PeCF (21-178) | HxCDD (32-141) | HxDD (28-130) | HxCDF (26-152) |
|-------------------|--------------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| 570-165916-1 | Outfall001_20231222_Comp | 59 | 55 | 90 | 64 | 61 | 65 | 65 | 56 |
| MB 320-734694/1-A | Method Blank | 60 | 59 | 72 | 57 | 56 | 59 | 62 | 60 |

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | HxDF (26-123) | HxCF (29-147) | 13CHxCF (28-136) | HpCDD (23-140) | HpCDF (28-143) | HpCDF2 (26-138) | OCDD (17-157) | OCDF (17-157) |
|-------------------|--------------------------|------------------|------------------|---------------------|-------------------|-------------------|--------------------|------------------|------------------|
| 570-165916-1 | Outfall001_20231222_Comp | 56 | 59 | 59 | 60 | 53 | 58 | 59 | 58 |
| MB 320-734694/1-A | Method Blank | 62 | 60 | 63 | 56 | 55 | 53 | 46 | 49 |

Surrogate Legend

- TCDD = 13C-2,3,7,8-TCDD
- TCDF = 13C-2,3,7,8-TCDF
- PeCDD = 13C-1,2,3,7,8-PeCDD
- PeCDF = 13C-1,2,3,7,8-PeCDF
- PeCF = 13C-2,3,4,7,8-PeCDF
- HxCDD = 13C-1,2,3,4,7,8-HxCDD
- HxDD = 13C-1,2,3,6,7,8-HxCDD
- HxCDF = 13C-1,2,3,4,7,8-HxCDF
- HxDF = 13C-1,2,3,6,7,8-HxCDF
- HxCF = 13C-1,2,3,7,8,9-HxCDF
- 13CHxCF = 13C-2,3,4,6,7,8-HxCDF
- HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
- HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
- HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
- OCDD = 13C-OCDD
- OCDF = 13C-OCDF

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCDD (20-175) | TCDF (22-152) | PeCDD (21-227) | PeCDF (21-192) | PeCF (13-328) | HxCDD (21-193) | HxDD (25-163) | HxCDF (19-202) |
|---------------------|------------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| LCS 320-734694/2-A | Lab Control Sample | 57 | 57 | 65 | 51 | 50 | 55 | 57 | 57 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 55 | 54 | 67 | 54 | 51 | 56 | 58 | 57 |

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | HxDF (21-159) | HxCF (17-205) | 13CHxCF (22-176) | HpCDD (26-166) | HpCDF (21-158) | HpCDF2 (20-186) | OCDD (13-199) | OCDF (13-199) |
|---------------------|------------------------|------------------|------------------|---------------------|-------------------|-------------------|--------------------|------------------|------------------|
| LCS 320-734694/2-A | Lab Control Sample | 58 | 57 | 56 | 54 | 51 | 51 | 42 | 44 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 58 | 59 | 57 | 56 | 54 | 54 | 44 | 47 |

Surrogate Legend

- TCDD = 13C-2,3,7,8-TCDD
- TCDF = 13C-2,3,7,8-TCDF
- PeCDD = 13C-1,2,3,7,8-PeCDD
- PeCDF = 13C-1,2,3,7,8-PeCDF
- PeCF = 13C-2,3,4,7,8-PeCDF
- HxCDD = 13C-1,2,3,4,7,8-HxCDD
- HxDD = 13C-1,2,3,6,7,8-HxCDD
- HxCDF = 13C-1,2,3,4,7,8-HxCDF
- HxDF = 13C-1,2,3,6,7,8-HxCDF

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.

Job ID: 570-165916-2

Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

HxCF = 13C-1,2,3,7,8,9-HxCDF

13CHxCF = 13C-2,3,4,6,7,8-HxCDF

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD

HpCDF = 13C-1,2,3,4,6,7,8-HpCDF

HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF

OCDD = 13C-OCDD

OCDF = 13C-OCDF

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-734694/1-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 734694

| Isotope Dilution | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 13C-1,2,3,7,8-PeCDF | 57 | | 24 - 185 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-2,3,4,7,8-PeCDF | 56 | | 21 - 178 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8-HxCDD | 59 | | 32 - 141 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,6,7,8-HxCDD | 62 | | 28 - 130 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8-HxCDF | 60 | | 26 - 152 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,6,7,8-HxCDF | 62 | | 26 - 123 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,7,8,9-HxCDF | 60 | | 29 - 147 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-2,3,4,6,7,8-HxCDF | 63 | | 28 - 136 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDD | 56 | | 23 - 140 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDF | 55 | | 28 - 143 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8,9-HpCDF | 53 | | 26 - 138 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-OCDD | 46 | | 17 - 157 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-OCDF | 49 | | 17 - 157 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 37Cl4-2,3,7,8-TCDD | 87 | | 35 - 197 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |

Lab Sample ID: LCS 320-734694/2-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734694

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------|-------------|------------|---------------|------|---|------|-------------|
| | | | | | | | |
| 2,3,7,8-TCDF | 0.000200 | 0.000194 | | ug/L | | 97 | 75 - 158 |
| 1,2,3,7,8-PeCDD | 0.00100 | 0.000727 | | ug/L | | 73 | 70 - 142 |
| 1,2,3,7,8-PeCDF | 0.00100 | 0.000944 | | ug/L | | 94 | 80 - 134 |
| 2,3,4,7,8-PeCDF | 0.00100 | 0.000976 | | ug/L | | 98 | 68 - 160 |
| 1,2,3,4,7,8-HxCDD | 0.00100 | 0.000891 | | ug/L | | 89 | 70 - 164 |
| 1,2,3,6,7,8-HxCDD | 0.00100 | 0.00103 | | ug/L | | 103 | 76 - 134 |
| 1,2,3,7,8,9-HxCDD | 0.00100 | 0.000994 | | ug/L | | 99 | 64 - 162 |
| 1,2,3,4,7,8-HxCDF | 0.00100 | 0.000917 | | ug/L | | 92 | 72 - 134 |
| 1,2,3,6,7,8-HxCDF | 0.00100 | 0.000913 | | ug/L | | 91 | 84 - 130 |
| 1,2,3,7,8,9-HxCDF | 0.00100 | 0.000916 | | ug/L | | 92 | 78 - 130 |
| 2,3,4,6,7,8-HxCDF | 0.00100 | 0.000927 | | ug/L | | 93 | 70 - 156 |
| 1,2,3,4,6,7,8-HpCDD | 0.00100 | 0.000883 | | ug/L | | 88 | 70 - 140 |
| 1,2,3,4,6,7,8-HpCDF | 0.00100 | 0.000985 | | ug/L | | 98 | 82 - 122 |
| 1,2,3,4,7,8,9-HpCDF | 0.00100 | 0.000917 | | ug/L | | 92 | 78 - 138 |
| OCDD | 0.00200 | 0.00192 | | ug/L | | 96 | 78 - 144 |
| OCDF | 0.00200 | 0.00185 | | ug/L | | 92 | 63 - 170 |

| Isotope Dilution | LCS LCS | | Limits |
|-----------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-2,3,7,8-TCDD | 57 | | 20 - 175 |
| 13C-2,3,7,8-TCDF | 57 | | 22 - 152 |
| 13C-1,2,3,7,8-PeCDD | 65 | | 21 - 227 |
| 13C-1,2,3,7,8-PeCDF | 51 | | 21 - 192 |
| 13C-2,3,4,7,8-PeCDF | 50 | | 13 - 328 |
| 13C-1,2,3,4,7,8-HxCDD | 55 | | 21 - 193 |
| 13C-1,2,3,6,7,8-HxCDD | 57 | | 25 - 163 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-734694/2-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734694

| Isotope Dilution | LCS | | Limits |
|-------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-1,2,3,4,7,8-HxCDF | 57 | | 19 - 202 |
| 13C-1,2,3,6,7,8-HxCDF | 58 | | 21 - 159 |
| 13C-1,2,3,7,8,9-HxCDF | 57 | | 17 - 205 |
| 13C-2,3,4,6,7,8-HxCDF | 56 | | 22 - 176 |
| 13C-1,2,3,4,6,7,8-HpCDD | 54 | | 26 - 166 |
| 13C-1,2,3,4,6,7,8-HpCDF | 51 | | 21 - 158 |
| 13C-1,2,3,4,7,8,9-HpCDF | 51 | | 20 - 186 |
| 13C-OCDD | 42 | | 13 - 199 |
| 13C-OCDF | 44 | | 13 - 199 |

| Surrogate | LCS | | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 37Cl4-2,3,7,8-TCDD | 89 | | 31 - 191 |

Lab Sample ID: LCSD 320-734694/3-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 734694

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec | | RPD | RPD Limit |
|---------------------|-------------|-------------|----------------|------|---|------|----------|-----|-----|-----------|
| | | | | | | | Limits | RPD | | |
| 2,3,7,8-TCDD | 0.000200 | 0.000216 | | ug/L | | 108 | 67 - 158 | 8 | 50 | |
| 2,3,7,8-TCDF | 0.000200 | 0.000200 | | ug/L | | 100 | 75 - 158 | 3 | 50 | |
| 1,2,3,7,8-PeCDD | 0.00100 | 0.000761 | | ug/L | | 76 | 70 - 142 | 5 | 50 | |
| 1,2,3,7,8-PeCDF | 0.00100 | 0.000997 | | ug/L | | 100 | 80 - 134 | 5 | 50 | |
| 2,3,4,7,8-PeCDF | 0.00100 | 0.00102 | | ug/L | | 102 | 68 - 160 | 5 | 50 | |
| 1,2,3,4,7,8-HxCDD | 0.00100 | 0.000992 | | ug/L | | 99 | 70 - 164 | 11 | 50 | |
| 1,2,3,6,7,8-HxCDD | 0.00100 | 0.00108 | | ug/L | | 108 | 76 - 134 | 5 | 50 | |
| 1,2,3,7,8,9-HxCDD | 0.00100 | 0.00110 | | ug/L | | 110 | 64 - 162 | 10 | 50 | |
| 1,2,3,4,7,8-HxCDF | 0.00100 | 0.000995 | | ug/L | | 100 | 72 - 134 | 8 | 50 | |
| 1,2,3,6,7,8-HxCDF | 0.00100 | 0.000980 | | ug/L | | 98 | 84 - 130 | 7 | 50 | |
| 1,2,3,7,8,9-HxCDF | 0.00100 | 0.000972 | | ug/L | | 97 | 78 - 130 | 6 | 50 | |
| 2,3,4,6,7,8-HxCDF | 0.00100 | 0.000976 | | ug/L | | 98 | 70 - 156 | 5 | 50 | |
| 1,2,3,4,6,7,8-HpCDD | 0.00100 | 0.000949 | | ug/L | | 95 | 70 - 140 | 7 | 50 | |
| 1,2,3,4,6,7,8-HpCDF | 0.00100 | 0.00110 | | ug/L | | 110 | 82 - 122 | 11 | 50 | |
| 1,2,3,4,7,8,9-HpCDF | 0.00100 | 0.00102 | | ug/L | | 102 | 78 - 138 | 10 | 50 | |
| OCDD | 0.00200 | 0.00212 | | ug/L | | 106 | 78 - 144 | 10 | 50 | |
| OCDF | 0.00200 | 0.00199 | | ug/L | | 99 | 63 - 170 | 7 | 50 | |

| Isotope Dilution | LCSD | | Limits |
|-----------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-2,3,7,8-TCDD | 55 | | 20 - 175 |
| 13C-2,3,7,8-TCDF | 54 | | 22 - 152 |
| 13C-1,2,3,7,8-PeCDD | 67 | | 21 - 227 |
| 13C-1,2,3,7,8-PeCDF | 54 | | 21 - 192 |
| 13C-2,3,4,7,8-PeCDF | 51 | | 13 - 328 |
| 13C-1,2,3,4,7,8-HxCDD | 56 | | 21 - 193 |
| 13C-1,2,3,6,7,8-HxCDD | 58 | | 25 - 163 |
| 13C-1,2,3,4,7,8-HxCDF | 57 | | 19 - 202 |
| 13C-1,2,3,6,7,8-HxCDF | 58 | | 21 - 159 |
| 13C-1,2,3,7,8,9-HxCDF | 59 | | 17 - 205 |
| 13C-2,3,4,6,7,8-HxCDF | 57 | | 22 - 176 |

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-734694/3-A

Matrix: Water

Analysis Batch: 737022

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 734694

| <u>Isotope Dilution</u> | <u>LCSD LCSD</u> | | <u>Limits</u> |
|-------------------------|------------------|------------------|---------------|
| | <u>%Recovery</u> | <u>Qualifier</u> | |
| 13C-1,2,3,4,6,7,8-HpCDD | 56 | | 26 - 166 |
| 13C-1,2,3,4,6,7,8-HpCDF | 54 | | 21 - 158 |
| 13C-1,2,3,4,7,8,9-HpCDF | 54 | | 20 - 186 |
| 13C-OCDD | 44 | | 13 - 199 |
| 13C-OCDF | 47 | | 13 - 199 |

| <u>Surrogate</u> | <u>LCSD LCSD</u> | | <u>Limits</u> |
|--------------------|------------------|------------------|---------------|
| | <u>%Recovery</u> | <u>Qualifier</u> | |
| 37Cl4-2,3,7,8-TCDD | 88 | | 31 - 191 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Specialty Organics

Prep Batch: 734694

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 1613B | |
| MB 320-734694/1-A | Method Blank | Total/NA | Water | 1613B | |
| LCS 320-734694/2-A | Lab Control Sample | Total/NA | Water | 1613B | |
| LCSD 320-734694/3-A | Lab Control Sample Dup | Total/NA | Water | 1613B | |

Analysis Batch: 737022

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| MB 320-734694/1-A | Method Blank | Total/NA | Water | 1613B | 734694 |
| LCS 320-734694/2-A | Lab Control Sample | Total/NA | Water | 1613B | 734694 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | Total/NA | Water | 1613B | 734694 |

Analysis Batch: 737584

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|--------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | 1613B | 734694 |

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Client Sample ID: Outfall001_20231222_Comp

Lab Sample ID: 570-165916-1

Date Collected: 12/22/23 09:35

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 1613B | | | 1016.9 mL | 20.0 uL | 734694 | 01/19/24 08:46 | C1S | EET SAC |
| Total/NA | Analysis | 1613B | | 1 | 1 Sample | 1 Sample | 737584 | 02/01/24 13:20 | JBC | EET SAC |

Instrument ID: 10D5

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|--------------------|-----------------------|-----------------------|-----------------|
| Alaska (UST) | State | 17-020 | 02-20-24 |
| ANAB | Dept. of Defense ELAP | L2468 | 01-20-27 |
| ANAB | Dept. of Energy | L2468.01 | 01-20-27 |
| ANAB | ISO/IEC 17025 | L2468 | 01-20-27 |
| Arizona | State | AZ0708 | 08-11-24 |
| Arkansas DEQ | State | 88-0691 | 05-18-24 |
| California | State | 2897 | 01-31-26 |
| Colorado | State | CA00044 | 08-31-24 |
| Florida | NELAP | E87570 | 06-30-24 |
| Georgia | State | 4040 | 01-29-25 |
| Hawaii | State | <cert No.> | 01-29-24 * |
| Illinois | NELAP | 200060 | 03-17-24 |
| Kansas | NELAP | E-10375 | 10-31-24 |
| Louisiana | NELAP | 01944 | 06-30-24 |
| Louisiana (All) | NELAP | 01944 | 06-30-24 |
| Maine | State | CA00004 | 04-14-24 |
| Michigan | State | 9947 | 01-31-24 * |
| Nevada | State | CA00044 | 07-31-24 |
| New Hampshire | NELAP | 2997 | 04-18-24 |
| New Jersey | NELAP | CA005 | 06-30-24 |
| New York | NELAP | 11666 | 04-01-24 |
| Ohio | State | 41252 | 01-29-25 |
| Oregon | NELAP | 4040 | 01-29-25 |
| Texas | NELAP | T104704399-23-17 | 05-31-24 |
| US Fish & Wildlife | US Federal Programs | 58448 | 04-30-24 |
| USDA | US Federal Programs | P330-18-00239 | 02-28-26 |
| Utah | NELAP | CA000442023-16 | 02-29-24 |
| Virginia | NELAP | 460278 | 03-14-24 |
| Washington | State | C581 | 05-05-24 |
| West Virginia (DW) | State | 9930C | 01-31-25 |
| Wisconsin | State | 998204680 | 08-31-24 |
| Wyoming | State Program | 8TMS-L | 01-28-19 * |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

| Method | Method Description | Protocol | Laboratory |
|--------|---|----------|------------|
| 1613B | Dioxins and Furans (HRGC/HRMS) | EPA | EET SAC |
| 1613B | Separatory Funnel (L/L) Extraction with Soxhlet Extraction of Dioxin and Furans | EPA | EET SAC |

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165916-1 | Outfall001_20231222_Comp | Water | 12/22/23 09:35 | 12/22/23 17:30 |

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Revised COC received from Victoria Pehlivan (H&A) on 12/26/23 @ 15:35pm. - Virendra (ECI)

165916

remove

should be on grab COC

CHAIN OF CUSTODY FORM

Eurofins Calscience Tustin

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|--|---|--|---|--|--|--|--|--|---|--|------------------------------------|--|----------------------|--|--------------------------------------|--|---------------------|--|--------------------|--|
| <p>Client Name/Address: Halley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108</p> | | <p>Project: Boeing SSFL NPDES Permit 2023 Quarterly Outfall 001, 002, 011, 018 Outfall 001 Comp</p> | | <p>Project Manager: Katherine Miller 520.289.8606, 520.904.6844 (cell) Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)</p> | | <p>Sample Description: Outfall 001</p> | | <p>Sample I.D.: Outfall001_20231222_Comp</p> | | <p>Sampling Date/Time: 12/22/2023 0935</p> | | <p>Sample Matrix: WM</p> | | <p>Container Type: 500 mL Poly</p> | | <p># of Cont.: 1</p> | | <p>Preservative: HNO₃</p> | | <p>Bottle #: 90</p> | | <p>MSM/SD: Yes</p> | |
| <p>Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #67013187</p> | | <p>Eurofins Calscience's services under this COC shall be performed in accordance with the TCS within Blanket Service Agreement #2022-24-Eurofins by and between Halley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.</p> | | <p>Sampler: Adrien Mobeka</p> | | <p>Comments: Outfall 001 analyze for Fe Outfall 001 analyze for Mn and Fe 48 hours Holding Time NO₃ & NO₂ 48 hours Holding Time for Turbidity</p> | | <p>ANALYSIS REQUIRED</p> | | <p>Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: _____ X 48 Hour: _____ 5 Day: _____ Normal: _____</p> | | <p>Barcode: 570-165916 Chain of Custody</p> | | | | | | | | | | | |

Legend: C=Conditional, EP=Expert Panel, R=Routine

| | |
|---|---|
| <p>Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730</p> | <p>Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730</p> |
| <p>Company: <i>[Signature]</i> Date/Time: 12/21/2023/1252</p> | <p>Company: <i>[Signature]</i> Date/Time: 12/22/23 1730</p> |
| <p>Company: <i>[Signature]</i> Date/Time: 12/22/23 1730</p> | <p>Company: <i>[Signature]</i> Date/Time: 12/22/23 1730</p> |

1.8/22 1.2/1.6 2.0/2.4 5.1/4



165916

H4MW

Eurofins Calscience Tustin

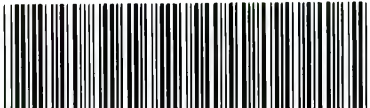
CHAIN OF CUSTODY FORM

R R R R R R R/EP R R R R R C

| | | | | | | | | | | | | | | | | | | |
|---|--|---|--|---|-----------------------------------|---|-------------------------------------|--|---------------------------------|-----------------------|-------------------|------------------|---|--|---|--|------------------------|----------|
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 001 Camp | | ANALYSIS REQUIRED | | | | | | | | | | | | | | |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | Total Recoverable Metals: (E200.6); Zn (E200.6); Cu, Pb, Cd, Se | TCDD (and all congeners) (E1619B) | BOD5 (20 degrees C) (E405.1 (SM6210B_BODCalc)) | Surfactants (MBAS) (SM5540C/E425.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (180.2 (SM2540D)) | Ammonia-N (950.2) | alpha-BHC (E608) | 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2- ethylhexyl)phthalate, NDMA, PCP (SVOCs E625) | Total Recoverable Metals: Mercury (E245.1) | Total Recoverable Metals: (E200.8); Mn, Fe | VOCs - 2CME only (E624) Week Labs in Haclenda Heights, CA | VOCs - A+A only (E624) | Comments |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement 2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | | | | | |
| Sampler: Adrien Mobeka | | | | | | | | | | | | | | | | | | |

| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MSMSD | Total Recoverable Metals: (E200.6); Zn (E200.6); Cu, Pb, Cd, Se | TCDD (and all congeners) (E1619B) | BOD5 (20 degrees C) (E405.1 (SM6210B_BODCalc)) | Surfactants (MBAS) (SM5540C/E425.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (180.2 (SM2540D)) | Ammonia-N (950.2) | alpha-BHC (E608) | 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2- ethylhexyl)phthalate, NDMA, PCP (SVOCs E625) | Total Recoverable Metals: Mercury (E245.1) | Total Recoverable Metals: (E200.8); Mn, Fe | VOCs - 2CME only (E624) Week Labs in Haclenda Heights, CA | VOCs - A+A only (E624) | Comments | | | | | |
|--------------------|--------------------------------|--------------------|---------------|-----------------|------------|--------------|----------|-------|---|-----------------------------------|---|-------------------------------------|--|---------------------------------|-----------------------|-------------------|------------------|---|--|---|--|------------------------|----------------------------|--|-----------------------------------|------|-------------------------------------|--|
| Outfall 001 | Outfall001_20231222_Comp | 12/22/2023 0935 | WM | 500 mL Poly | 1 | HNO3 | 90 | Yes | X | | | | | | | | | | X | X | | | Outfall 001 analyze for Fe | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | X | | | | | | | | | | | | | | | Outfall 001 analyze for Mn and Fe | | | |
| | | | WM | 1L Poly | 1 | None | 115 | No | | | X | | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | X | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | X | | | | | | | | | | | | | 48 hours Holding Time NO3 & NO2 | |
| | | | WM | 500 mL Poly | 1 | None | 150 | No | | | | | | | X | | | | | | | | | | | | 48 hours Holding Time for Turbidity | |
| | | | WM | 500 mL Poly | 1 | H2SO4 | 160 | No | | | | | | | | | | X | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | | X | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | X | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 185 | No | | | | | | | | | X | | | | | | | | | | | |
| 2 | Outfall001_20231222_Comp_Extra | 12/22/2023 0935 | WM | 1 L Glass Amber | 2 | None | 110 | No | | H | | | | | | | | | | | | | | | Hold | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | H | | | | | | | | | | | | | | Hold | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | H | | | | | | | | | | | | Hold | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | H | | | | | | | Hold | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | H | | | | | | Hold | |

Legend: C=Conditional, EP=Expert Panel, R=Routine

| | | |
|---|---|---|
| Relinquished By: <i>Mark Dominick</i> Date/Time: 12-21-2023/1252 Company: H&A | Received By: <i>Mark Dominick</i> Date/Time: 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>Mark Dominick</i> Date/Time: 12/22/23 1730 Company: EC | Received By: <i>Mark Dominick</i> Date/Time: 12/22/23 1730 |  |
| Relinquished By: _____ Date/Time: _____ Company: _____ | Received By: _____ Date/Time: _____ | |

1.8/2.2 1.2/1.6 2.0/2.4 SC14

570-165916 Chain of Custody

CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | | Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 001 Comp | | | | | | ANALYSIS REQUIRED Total Dissolved Metals: (E200.B); Zn (E200.B); Cu, Pb, Cd, Se Cyanide (SM4500-CNE / E335.2) Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) Total Dissolved Metals: Mercury (E245.1) Total Dissolved Metals: (E200.B); Mn, Fe | | | | | | | | | | Comments |
|--|----------------------------|--------------------|---|--------------------|------------|------------------|----------|--------|---|-------------------------------|--|--|--|--|--|---|--|--|----------|
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECL Project #57013187 | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | Comments |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Standard Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | Comments |
| Sampler: Adrien Mobeka | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | Comments |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Dissolved Metals: (E200.B); Zn (E200.B); Cu, Pb, Cd, Se | Cyanide (SM4500-CNE / E335.2) | Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | Total Dissolved Metals: Mercury (E245.1) | Total Dissolved Metals: (E200.B); Mn, Fe | Comments | | | | | |
| Outfall 001 | Outfall001_20231222_Comp_F | 12/22/2023 / 0935 | WM | 1 L Poly | 1 | None | 190 | Yes | X | | | | | Filter and preserve w/in 24hrs of receipt at lab | | | | | |
| | | | WM | 500 mL Poly | 1 | HNO ₃ | 80 | No | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 200 | No | | | | | | X | Filter and preserve w/in 24hrs of receipt at lab. Outfall 001 analyze for Fe | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 250 | No | | | | | | | | | | | |
| | | | WM | borosilicate vials | 2 | None | 320 | No | | | | X | | | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures | | | |
| Outfall001_20231222_Comp | 12/22/2023 / 0935 | WM | 500 mL Poly | 1 | NaOH | 220 | No | | X | | | | | | | | | | |
| | | WM | 2.5 Gal Cube | 1 | None | 225 | No | | | | | | | | | | | | |
| | | WM | 1 L Glass Amber | 1 | None | 230 | No | | | | X | | | Unfiltered and unpreserved analysis. Separate RAD onto another workorder. Analyze duplicate, not MS/MSD. | | | | | |

Legend: C=Conditional, EP=Expert Panel, R=Routine, QRSW=Quarterly Receiving Water

| | | |
|--|---|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12-21-2023/1252 Company: <i>[Signature]</i> | Received By: <i>[Signature]</i> Date/Time: EC 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> X 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> Date/Time: EC 12/22/23 1730 Company: | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 | Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <input checked="" type="checkbox"/> X |

Chain of Custody Record



Environmental Testing



| | | | | | |
|---|--|---|--|---|--|
| Client Information (Sub Contract Lab) | | Sampler: Patel, Virendra | | Carrier Tracking No(s): 570-334294.1 | |
| Client Contact: Virendra Patel | | Lab P/N: Patel, Virendra | | COC No: 570-334294.1 | |
| Shipping/Receiving: Virendra.Patel@et.eurofins.com | | E-Mail: Virendra.Patel@et.eurofins.com | | Page: Page 1 of 1 | |
| Company: Eurofins Environment Testing Northern Ca | | State of Origin: California | | Job #: 570-165916-2 | |
| Address: 880 Riverside Parkway | | Accreditations Required (See note): State California; State Program California | | Preservation Codes: | |
| City: West Sacramento | | Due Date Requested: 1/16/2024 | | A HCL M Hexane | |
| State, Zip: CA, 95605 | | TAT Requested (days): | | B NaOH N None | |
| Phone: 916-373-5600(Tel) 916-372-1059(Fax) | | PO #: | | C Zn Acetate O AsNaO2 | |
| Email: | | WO #: | | D Nitric Acid P Na2OAS | |
| Project Name: Boeing NPDES SSFL Outfall 001 Comp | | Project #: 57013187 | | E NaHSO4 Q Na2SO3 | |
| Site: | | SSOW#: | | F MeOH R Na2S2O3 | |
| Sample Identification - Client ID (Lab ID) | | Sample Date | | G Amchlor S H2SO4 | |
| Outfall001_20231222_Comp (570-165916-1) | | 12/22/23 | | H Ascorbic Acid T TSP Dodecahydrate | |
| Outfall001_20231222_Comp_Extra (570-165916-2) | | 12/22/23 | | I Ice U Acetone | |
| Sample Type (C=Comp, G=grab) | | Sample Time | | J DI Water V MCAA | |
| Water | | 09:35 Pacific | | W pH 4-5 | |
| Water | | 09:35 Pacific | | X EDTA Y Trizma | |
| Matrix (Water, Solid, Overstabil) | | Sample Code: | | Z other (specify) | |
| Field Filtered Sample (Yes or No) | | Preservation Code: | | Other: | |
| Perform MS/MSD (Yes or No) | | Water | | Total Number of containers | |
| 1613B/1613B_Sox_Sep_P (MOD) Standard List w/ | | X | | 2 See OAS, Boeing_w/lu to zero, ug/L, Use | |
| 1613B/1613B_Sox_Sep_P (MOD) Standard List w/ | | X | | Boeing glassware. | |
| Totals (Hold) | | X | | 2 See OAS, Boeing_w/lu to zero, ug/L, Use | |
| Special Instructions/Note: | | Special Instructions/Note: | | Boeing glassware. | |
| See OAS, Boeing_w/lu to zero, ug/L, Use | | See OAS, Boeing_w/lu to zero, ug/L, Use | | Boeing glassware. | |

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification
 Unconfirmed Return To Client Disposal By Lab Archive For Months

Deliverable Requested: I II III, IV Other (specify) **Primary Deliverable Rank: 2**

| | | |
|-------------------------------------|---------------|-----------------------------|
| Empty Kit-Relinquished by: | Date: | Method of Shipment: |
| Relinquished by: <i>[Signature]</i> | 12/26/23 1400 | Company: <i>[Signature]</i> |
| Relinquished by: | Date/Time: | Company: |
| Relinquished by: | Date/Time: | Company: |

Custody Seals Intact: Yes No Custody Seal No. _____
 Cooler Temperature(s) °C and Other Remarks: _____

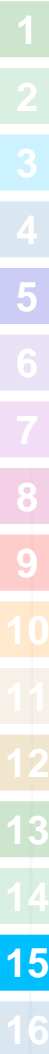
ICOC No:
570-334300

Containers

| <u>Count</u> | <u>Container Type</u> | <u>Preservative</u> |
|--------------|-----------------------------|---------------------|
| 3 | Voa Vial 40ml - unpreserved | None |

Subcontract Method Instructions

| Sample IDs | Method | Method Description | Method Comments |
|------------|-------------|-----------------------------|---------------------------------|
| 1 | SUBCONTRACT | SUB (VOCs-2CVE only (E624)) | Level IV package, MDL, EQUIS 5C |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165916-2

Login Number: 165916

List Source: Eurofins Calscience

List Number: 1

Creator: Patel, Virendra

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165916-2

Login Number: 165916

List Number: 2

Creator: Hemphill, Alexis N

List Source: Eurofins Sacramento

List Creation: 12/27/23 02:37 PM

| Question | Answer | Comment |
|---|--------|------------------------------------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.3 C, 1.1 C |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

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JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 001 - Comp

JOB NUMBER

570-165916-3

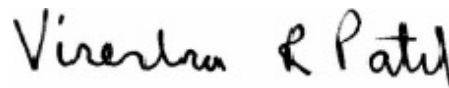
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Qualifiers

Rad

| Qualifier | Qualifier Description |
|-----------|--|
| G | The Sample MDC is greater than the requested RL. |
| U | Result is less than the sample detection limit. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Job ID: 570-165916-3

Eurofins Calscience

Job Narrative 570-165916-3

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6° C, 2.2° C and 2.4° C.

Receipt Exceptions

The reference method requires samples to have a pH of <2. The following samples were received with a pH of 7 :

Outfall009_20231222_Comp (570-165899-1), Outfall009_20231222_Comp (570-165899-1[MS]), Outfall009_20231222_Comp (570-165899-1[MSD]), Outfall009_20231222_Comp_F (570-165899-2), Outfall009_20231222_Comp_F (570-165899-2[MS]), Outfall009_20231222_Comp_F (570-165899-2[MSD]), Outfall009_20231222_Comp_Extra (570-165899-3), Outfall002_20231222_Comp (570-165901-1), Outfall002_20231222_Comp (570-165901-1[MS]), Outfall002_20231222_Comp (570-165901-1[MSD]), Outfall002_20231222_Comp_Extra (570-165901-2), Outfall002_20231222_Comp_F (570-165901-3), Outfall002_20231222_Comp_F (570-165901-3[MS]), Outfall002_20231222_Comp_F (570-165901-3[MSD]), Outfall008_20231222_Comp (570-165909-1), Outfall008_20231222_Comp (570-165909-1[MS]), Outfall008_20231222_Comp (570-165909-1[MSD]), Outfall008_20231222_Comp_F (570-165909-2), Outfall008_20231222_Comp_F (570-165909-2[MS]), Outfall008_20231222_Comp_F (570-165909-2[MSD]), Outfall008_20231222_Comp_Extra (570-165909-3), Outfall001_20231222_Comp (570-165916-1), Outfall001_20231222_Comp (570-165916-1[MS]), Outfall001_20231222_Comp (570-165916-1[MSD]), Outfall001_20231222_Comp_Extra (570-165916-2), Outfall001_20231222_Comp_F (570-165916-3), Outfall001_20231222_Comp_F (570-165916-3[MS]) and Outfall001_20231222_Comp_F (570-165916-3[MSD]). The samples were adjusted to the appropriate pH in the laboratory.

RAD

Method 901.1: Gamma Prep batch 160-642737

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

| Inferred from | Reported to Analyte |
|---------------|---------------------|
| Th-234 | Pa-234 |
| Th-234 | U-238 |
| Pb-210 | Po-210 |
| Pb-210 | Bi-210 |
| Cs-137 | Ba-137m |
| Pb-212 | Po-212 |
| Xe-131m | Xe-131 |
| Sb-125 | Te-125m |
| Ag-108m | Ag-108 |
| Rh-106 | Ru-106 |
| Pb-212 | Th-228 |
| Pb-212 | Ra-224 |
| U-235 | Th-231 |
| Ac-228 | Th-232 |
| Ac-228 | Ra-228 |
| Th-227 | Ra-223 |
| Th-227 | Ac-227 |
| Th-227 | Bi-211 |
| Th-227 | Pb-211 |
| Bi-214 | Ra-226 |

Outfall001_20231222_Comp (570-165916-1), (570-165650-AX-1-B) and (570-165650-AX-1-C DU)

Method 904.0: Radium-228 batch 642709

The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: Outfall001_20231222_Comp (570-165916-1). Analytical results are reported with the detection limit achieved.

Eurofins Calscience

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Job ID: 570-165916-3 (Continued)

Eurofins Calscience

Method ExtChrom:

Method PrecSep_0:

Method PrecSep-21:

Method PrecSep-7:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Client Sample ID: Outfall001_20231222_Comp

Lab Sample ID: 570-165916-1

No Detections.

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Client Sample ID: Outfall001_20231222_Comp
Date Collected: 12/22/23 09:35
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Gross Alpha | 11.6 | | 2.88 | 3.17 | 3.00 | 2.41 | pCi/L | 01/03/24 10:29 | 01/15/24 14:45 | 1 |
| Gross Beta | 10.3 | | 1.27 | 1.64 | 4.00 | 1.06 | pCi/L | 01/03/24 10:29 | 01/15/24 14:45 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: EPA 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Client Sample ID: Outfall001_20231222_Comp
Date Collected: 12/22/23 09:35
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Cesium-137 | -1.36 | U | 7.85 | 7.85 | 20.0 | 9.22 | pCi/L | 01/02/24 14:27 | 01/09/24 08:58 | 1 |
| Potassium-40 | 14.3 | U | 95.7 | 95.7 | | 101 | pCi/L | 01/02/24 14:27 | 01/09/24 08:58 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: EPA 903.0 - Radium-226 (GFPC)

Client Sample ID: Outfall001_20231222_Comp
Date Collected: 12/22/23 09:35
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------------|--------------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.517 | | 0.345 | 0.348 | 1.00 | 0.497 | pCi/L | 01/02/24 11:15 | 01/24/24 14:24 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| <i>Ba Carrier</i> | 60.4 | | 30 - 110 | | | | | 01/02/24 11:15 | 01/24/24 14:24 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: EPA 904.0 - Radium-228 (GFPC)

Client Sample ID: Outfall001_20231222_Comp
Date Collected: 12/22/23 09:35
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Radium-228 | 0.919 | U G | 0.985 | 0.989 | 1.00 | 1.60 | pCi/L | 01/02/24 11:18 | 01/18/24 11:41 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 60.4 | | 30 - 110 | | | | | 01/02/24 11:18 | 01/18/24 11:41 | 1 |
| Y Carrier | 81.5 | | 30 - 110 | | | | | 01/02/24 11:18 | 01/18/24 11:41 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: EPA 905 - Strontium-90 (GFPC)

Client Sample ID: Outfall001_20231222_Comp
Date Collected: 12/22/23 09:35
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Strontium-90 | 0.376 | U | 0.450 | 0.451 | 3.00 | 0.743 | pCi/L | 01/03/24 10:27 | 01/11/24 15:23 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Sr Carrier | 70.0 | | 30 - 110 | | | | | 01/03/24 10:27 | 01/11/24 15:23 | 1 |
| Y Carrier | 86.4 | | 30 - 110 | | | | | 01/03/24 10:27 | 01/11/24 15:23 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: EPA 906.0 - Tritium, Total (LSC)

Client Sample ID: Outfall001_20231222_Comp
Date Collected: 12/22/23 09:35
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----------------------------|-----------------------------|-----|-----|-------|----------------|----------------|---------|
| Tritium | 3.15 | U | 172 | 172 | 500 | 313 | pCi/L | 01/17/24 11:50 | 01/18/24 14:13 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: DOE A-01-R - Isotopic Uranium (Alpha Spectrometry)

Client Sample ID: Outfall001_20231222_Comp
 Date Collected: 12/22/23 09:35
 Date Received: 12/22/23 17:30

Lab Sample ID: 570-165916-1
 Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Total Uranium | 0.824 | | 0.432 | 0.435 | 1.00 | 0.382 | pCi/L | 01/09/24 08:25 | 01/22/24 10:10 | 1 |
| Tracer | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Uranium-232 | 88.3 | | 30 - 110 | | | | | 01/09/24 08:25 | 01/22/24 10:10 | 1 |

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Tracer/Carrier Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Ba (30-110) | | | | | | | |
|--------------------|--------------------------|----------------|--|--|--|--|--|--|--|
| 570-165916-1 | Outfall001_20231222_Comp | 60.4 | | | | | | | |
| LCS 160-642708/2-A | Lab Control Sample | 81.3 | | | | | | | |
| MB 160-642708/1-A | Method Blank | 93.3 | | | | | | | |

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Ba (30-110) | Y (30-110) | | | | | | |
|--------------------|--------------------------|----------------|---------------|--|--|--|--|--|--|
| 570-165916-1 | Outfall001_20231222_Comp | 60.4 | 81.5 | | | | | | |
| LCS 160-642709/2-A | Lab Control Sample | 81.3 | 76.3 | | | | | | |
| MB 160-642709/1-A | Method Blank | 93.3 | 83.4 | | | | | | |

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Sr (30-110) | Y (30-110) | | | | | | |
|--------------------|--------------------------|----------------|---------------|--|--|--|--|--|--|
| 570-165916-1 | Outfall001_20231222_Comp | 70.0 | 86.4 | | | | | | |
| LCS 160-642791/2-A | Lab Control Sample | 82.1 | 89.0 | | | | | | |
| MB 160-642791/1-A | Method Blank | 77.1 | 89.7 | | | | | | |

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | U-232 (30-110) | | | | | | | |
|--------------------|--------------------------|-------------------|--|--|--|--|--|--|--|
| 570-165916-1 | Outfall001_20231222_Comp | 88.3 | | | | | | | |
| LCS 160-643475/2-A | Lab Control Sample | 77.5 | | | | | | | |
| MB 160-643475/1-A | Method Blank | 73.3 | | | | | | | |

Tracer/Carrier Legend

U-232 = Uranium-232

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-642792/1-A
Matrix: Water
Analysis Batch: 644396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------|---------|-----------|-----------------|-----------------|------|-------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Gross Alpha | 0.09493 | U | 0.709 | 0.710 | 3.00 | 1.30 | pCi/L | 01/03/24 10:29 | 01/15/24 13:30 | 1 |
| Gross Beta | -0.1726 | U | 0.484 | 0.485 | 4.00 | 0.899 | pCi/L | 01/03/24 10:29 | 01/15/24 13:30 | 1 |

Lab Sample ID: LCS 160-642792/2-A
Matrix: Water
Analysis Batch: 644396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|-------------|-------------|------------|----------|-----------------|------|------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Gross Alpha | 49.3 | 53.75 | | 7.98 | 3.00 | 2.71 | pCi/L | 109 | 75 - 125 |

Lab Sample ID: LCSB 160-642792/3-A
Matrix: Water
Analysis Batch: 644400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | Spike Added | LCSB Result | LCSB Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|------------|-------------|-------------|-----------|-----------------|------|-------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Gross Beta | 72.1 | 71.21 | | 7.65 | 4.00 | 0.944 | pCi/L | 99 | 75 - 125 |

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-642737/1-A
Matrix: Water
Analysis Batch: 642931

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642737

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------|-----------------|------|------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Cesium-137 | 2.641 | U | 13.3 | 13.3 | 20.0 | 17.2 | pCi/L | 01/02/24 14:27 | 01/04/24 09:22 | 1 |
| Potassium-40 | 4.248 | U | 105 | 105 | | 201 | pCi/L | 01/02/24 14:27 | 01/04/24 09:22 | 1 |

Lab Sample ID: LCS 160-642737/2-A
Matrix: Water
Analysis Batch: 643039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642737

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|---------------|-------------|------------|----------|-----------------|------|------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Americium-241 | 135000 | 143000 | | 17000 | | 444 | pCi/L | 106 | 75 - 125 |
| Cesium-137 | 40100 | 41770 | | 4980 | 20.0 | 107 | pCi/L | 104 | 75 - 125 |
| Cobalt-60 | 16100 | 16940 | | 2020 | | 66.3 | pCi/L | 105 | 75 - 125 |

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-642708/1-A
Matrix: Water
Analysis Batch: 645440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642708

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|---------|-----------|-----------------|-----------------|------|-------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Radium-226 | 0.04628 | U | 0.0759 | 0.0760 | 1.00 | 0.132 | pCi/L | 01/02/24 11:15 | 01/24/24 14:22 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-642708/1-A
 Matrix: Water
 Analysis Batch: 645440

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642708

| Carrier | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------|--------------|-----------------|----------|----------------|----------------|---------|
| Ba Carrier | 93.3 | | 30 - 110 | 01/02/24 11:15 | 01/24/24 14:22 | 1 |

Lab Sample ID: LCS 160-642708/2-A
 Matrix: Water
 Analysis Batch: 645440

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642708

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|------------|----------------|---------------|-------------|-----------------------------|------|-------|-------|------|----------------|
| Radium-226 | 11.3 | 11.41 | | 1.22 | 1.00 | 0.130 | pCi/L | 101 | 75 - 125 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|---------------|------------------|----------|
| Ba Carrier | 81.3 | | 30 - 110 |

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-642709/1-A
 Matrix: Water
 Analysis Batch: 644834

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642709

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------------|-----------------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.07053 | U | 0.245 | 0.245 | 1.00 | 0.445 | pCi/L | 01/02/24 11:18 | 01/18/24 11:40 | 1 |

| Carrier | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------|--------------|-----------------|----------|----------------|----------------|---------|
| Ba Carrier | 93.3 | | 30 - 110 | 01/02/24 11:18 | 01/18/24 11:40 | 1 |
| Y Carrier | 83.4 | | 30 - 110 | 01/02/24 11:18 | 01/18/24 11:40 | 1 |

Lab Sample ID: LCS 160-642709/2-A
 Matrix: Water
 Analysis Batch: 644834

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642709

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|------------|----------------|---------------|-------------|-----------------------------|------|-------|-------|------|----------------|
| Radium-228 | 9.29 | 10.33 | | 1.44 | 1.00 | 0.583 | pCi/L | 111 | 75 - 125 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|---------------|------------------|----------|
| Ba Carrier | 81.3 | | 30 - 110 |
| Y Carrier | 76.3 | | 30 - 110 |

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-642791/1-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642791

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------------|-----------------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Strontium-90 | 0.2084 | U | 0.194 | 0.194 | 3.00 | 0.311 | pCi/L | 01/03/24 10:27 | 01/11/24 15:19 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: MB 160-642791/1-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642791

| Carrier | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|----------|----------------|----------------|---------|
| Sr Carrier | 77.1 | | 30 - 110 | 01/03/24 10:27 | 01/11/24 15:19 | 1 |
| Y Carrier | 89.7 | | 30 - 110 | 01/03/24 10:27 | 01/11/24 15:19 | 1 |

Lab Sample ID: LCS 160-642791/2-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642791

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|--------------|-------------|------------|----------|-----------------------|------|-------|-------|------|-------------|
| Strontium-90 | 7.21 | 7.723 | | 0.842 | 3.00 | 0.278 | pCi/L | 107 | 75 - 125 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|------------|---------------|----------|
| Sr Carrier | 82.1 | | 30 - 110 |
| Y Carrier | 89.0 | | 30 - 110 |

Method: 906.0 - Tritium, Total (LSC)

Lab Sample ID: MB 160-644673/1-A
 Matrix: Water
 Analysis Batch: 644941

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 644673

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-----------------------|-----------------------|-----|-----|-------|----------------|----------------|---------|
| Tritium | -77.93 | U | 158 | 159 | 500 | 301 | pCi/L | 01/17/24 11:50 | 01/18/24 07:26 | 1 |

Lab Sample ID: LCS 160-644673/2-A
 Matrix: Water
 Analysis Batch: 644941

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 644673

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|---------|-------------|------------|----------|-----------------------|-----|-----|-------|------|-------------|
| Tritium | 2000 | 1928 | | 368 | 500 | 323 | pCi/L | 96 | 75 - 125 |

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Lab Sample ID: MB 160-643475/1-A
 Matrix: Water
 Analysis Batch: 645111

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 643475

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------------|-----------|--------------|-----------------------|-----------------------|------|-------|-------|----------------|----------------|---------|
| Total Uranium | 0.08145 | U | 0.1267 | 0.1268 | 1.00 | 0.185 | pCi/L | 01/09/24 08:25 | 01/22/24 10:07 | 1 |

| Tracer | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------|-----------|--------------|----------|----------------|----------------|---------|
| Uranium-232 | 73.3 | | 30 - 110 | 01/09/24 08:25 | 01/22/24 10:07 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Lab Sample ID: LCS 160-643475/2-A
Matrix: Water
Analysis Batch: 645113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 643475

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|---------------|----------------|-----------------------|--------------------------|-----------------------------|------|-------|-------|------|----------------|
| Uranium-234 | 12.7 | 13.15 | | 1.58 | 1.00 | 0.139 | pCi/L | 103 | 75 - 125 |
| Uranium-238 | 13.0 | 14.59 | | 1.71 | 1.00 | 0.111 | pCi/L | 112 | 75 - 125 |
| Tracer | | LCS %Yield | LCS Qualifier | Limits | | | | | |
| Uranium-232 | | 77.5 | | 30 - 110 | | | | | |

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QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

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Prep Batch: 642708

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|------------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | PrecSep-21 | |
| MB 160-642708/1-A | Method Blank | Total/NA | Water | PrecSep-21 | |
| LCS 160-642708/2-A | Lab Control Sample | Total/NA | Water | PrecSep-21 | |

Prep Batch: 642709

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | PrecSep_0 | |
| MB 160-642709/1-A | Method Blank | Total/NA | Water | PrecSep_0 | |
| LCS 160-642709/2-A | Lab Control Sample | Total/NA | Water | PrecSep_0 | |

Prep Batch: 642737

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|------------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | Fill_Geo-0 | |
| MB 160-642737/1-A | Method Blank | Total/NA | Water | Fill_Geo-0 | |
| LCS 160-642737/2-A | Lab Control Sample | Total/NA | Water | Fill_Geo-0 | |

Prep Batch: 642791

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | PrecSep-7 | |
| MB 160-642791/1-A | Method Blank | Total/NA | Water | PrecSep-7 | |
| LCS 160-642791/2-A | Lab Control Sample | Total/NA | Water | PrecSep-7 | |

Prep Batch: 642792

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|-------------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | Evaporation | |
| MB 160-642792/1-A | Method Blank | Total/NA | Water | Evaporation | |
| LCS 160-642792/2-A | Lab Control Sample | Total/NA | Water | Evaporation | |
| LCSB 160-642792/3-A | Lab Control Sample | Total/NA | Water | Evaporation | |

Prep Batch: 643475

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | ExtChrom | |
| MB 160-643475/1-A | Method Blank | Total/NA | Water | ExtChrom | |
| LCS 160-643475/2-A | Lab Control Sample | Total/NA | Water | ExtChrom | |

Prep Batch: 644673

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|---------------|------------|
| 570-165916-1 | Outfall001_20231222_Comp | Total/NA | Water | LSC_Dist_Susp | |
| MB 160-644673/1-A | Method Blank | Total/NA | Water | LSC_Dist_Susp | |
| LCS 160-644673/2-A | Lab Control Sample | Total/NA | Water | LSC_Dist_Susp | |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Client Sample ID: Outfall001_20231222_Comp

Lab Sample ID: 570-165916-1

Date Collected: 12/22/23 09:35

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------------|------------|---------------|-----|------------|----------------|--------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | Evaporation | | | 199.98 mL | 1.0 g | 642792 | 01/03/24 10:29 | ASG | EET SL |
| Total/NA | Analysis | 900.0 | | 1 | | | 644329 | 01/15/24 14:45 | FLC | EET SL |
| Instrument ID: GFPCRED | | | | | | | | | | |
| Total/NA | Prep | Fill_Geo-0 | | | 1000 mL | 1.0 g | 642737 | 01/02/24 14:27 | AJP | EET SL |
| Total/NA | Analysis | 901.1 | | 1 | | | 643591 | 01/09/24 08:58 | CAH | EET SL |
| Instrument ID: GAMMAVISION | | | | | | | | | | |
| Total/NA | Prep | PrecSep-21 | | | 493.91 mL | 1.0 g | 642708 | 01/02/24 11:15 | KAC | EET SL |
| Total/NA | Analysis | 903.0 | | 1 | | | 645440 | 01/24/24 14:24 | FLC | EET SL |
| Instrument ID: GFPCBLUE | | | | | | | | | | |
| Total/NA | Prep | PrecSep_0 | | | 493.91 mL | 1.0 g | 642709 | 01/02/24 11:18 | KAC | EET SL |
| Total/NA | Analysis | 904.0 | | 1 | | | 644834 | 01/18/24 11:41 | FLC | EET SL |
| Instrument ID: GFPCORANGE | | | | | | | | | | |
| Total/NA | Prep | PrecSep-7 | | | 502.16 mL | 1.0 g | 642791 | 01/03/24 10:27 | KAC | EET SL |
| Total/NA | Analysis | 905 | | 1 | | | 643955 | 01/11/24 15:23 | CMM | EET SL |
| Instrument ID: GFPCRED | | | | | | | | | | |
| Total/NA | Prep | LSC_Dist_Susp | | | 100.00 mL | 1.0 g | 644673 | 01/17/24 11:50 | MST | EET SL |
| Total/NA | Analysis | 906.0 | | 1 | | | 644941 | 01/18/24 14:13 | MLK | EET SL |
| Instrument ID: LSCBROWN | | | | | | | | | | |
| Total/NA | Prep | ExtChrom | | | 250.42 mL | 1.0 mL | 643475 | 01/09/24 08:25 | MLT | EET SL |
| Total/NA | Analysis | A-01-R | | 1 | | | 645048 | 01/22/24 10:10 | FLC | EET SL |
| Instrument ID: ALPHAVISION | | | | | | | | | | |

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|--------------------------|---|----------------------------|-----------------|
| Alaska (UST) | State | 20-001 | 05-06-25 |
| ANAB | Dept. of Defense ELAP | L2305 | 04-06-25 |
| ANAB | Dept. of Energy | L2305.01 | 04-06-25 |
| ANAB | ISO/IEC 17025 | L2305 | 04-06-25 |
| Arizona | State | AZ0813 | 12-08-24 |
| California | Los Angeles County Sanitation Districts | 10259 | 06-30-22 * |
| California | State | 2886 | 06-30-24 |
| Connecticut | State | PH-0241 | 03-31-25 |
| Florida | NELAP | E87689 | 06-30-24 |
| HI - RadChem Recognition | State | n/a | 06-30-24 |
| Illinois | NELAP | 200023 | 11-30-24 |
| Iowa | State | 373 | 12-01-24 |
| Kansas | NELAP | E-10236 | 10-31-24 |
| Kentucky (DW) | State | KY90125 | 12-31-24 |
| Kentucky (WW) | State | KY90125 (Permit KY0004049) | 12-31-24 |
| Louisiana | NELAP | 04080 | 06-30-22 * |
| Louisiana (All) | NELAP | 04080 | 06-30-24 |
| Louisiana (DW) | State | LA011 | 12-31-24 |
| Maryland | State | 310 | 09-30-24 |
| Massachusetts | State | M-MO054 | 06-30-24 |
| MI - RadChem Recognition | State | 9005 | 06-30-24 |
| Missouri | State | 780 | 06-30-25 |
| Nevada | State | MO000542020-1 | 07-31-24 |
| New Jersey | NELAP | MO002 | 06-30-24 |
| New Mexico | State | MO00054 | 06-30-24 |
| New York | NELAP | 11616 | 03-31-24 |
| North Carolina (DW) | State | 29700 | 07-31-24 |
| North Dakota | State | R-207 | 06-30-24 |
| Oklahoma | NELAP | 9997 | 08-31-24 |
| Oregon | NELAP | 4157 | 09-01-24 |
| Pennsylvania | NELAP | 68-00540 | 02-28-24 |
| South Carolina | State | 85002001 | 06-30-24 |
| Texas | NELAP | T104704193 | 07-31-24 |
| US Fish & Wildlife | US Federal Programs | 058448 | 07-31-24 |
| USDA | US Federal Programs | P330-17-00028 | 05-18-26 |
| Utah | NELAP | MO000542021-14 | 07-31-24 |
| Virginia | NELAP | 10310 | 06-15-25 |
| Washington | State | C592 | 08-30-24 |
| West Virginia DEP | State | 381 | 01-31-24 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

| Method | Method Description | Protocol | Laboratory |
|---------------|--|----------|------------|
| 900.0 | Gross Alpha and Gross Beta Radioactivity | EPA | EET SL |
| 901.1 | Cesium 137 & Other Gamma Emitters (GS) | EPA | EET SL |
| 903.0 | Radium-226 (GFPC) | EPA | EET SL |
| 904.0 | Radium-228 (GFPC) | EPA | EET SL |
| 905 | Strontium-90 (GFPC) | EPA | EET SL |
| 906.0 | Tritium, Total (LSC) | EPA | EET SL |
| A-01-R | Isotopic Uranium (Alpha Spectrometry) | DOE | EET SL |
| Evaporation | Preparation, Evaporation | None | EET SL |
| ExtChrom | Preparation, Extraction Chromatography Resin Actinide Separation | None | EET SL |
| Fill_Geo-0 | Fill Geometry, No In-Growth | None | EET SL |
| LSC_Dist_Susp | Distillation and Suspension (LSC) | None | EET SL |
| PrecSep_0 | Preparation, Precipitate Separation | None | EET SL |
| PrecSep-21 | Preparation, Precipitate Separation (21-Day In-Growth) | None | EET SL |
| PrecSep-7 | Preparation, Precipitate Separation (7-Day In-Growth) | None | EET SL |

Protocol References:

DOE = U.S. Department of Energy
EPA = US Environmental Protection Agency
None = None

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 001 - Comp

Job ID: 570-165916-3

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165916-1 | Outfall001_20231222_Comp | Water | 12/22/23 09:35 | 12/22/23 17:30 |

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Revised COC received from Victoria Pehlivan (H&A) on 12/26/23 @ 15:35pm. - Virendra (ECI)

165916
remove
should be on grab COC

CHAIN OF CUSTODY FORM

Eurofins Calscience Tustin

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|---|--|---|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <p>Client Name/Address: Halley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108</p> | | <p>Project: Boeing SSFL NPDES Permit 2023 Quarterly Outfall 001, 002, 011, 018 Outfall 001 Comp</p> | | <p>Project Manager: Katherine Miller 520.289.8606, 520.904.6844 (cell) Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)</p> | | <p>Sample Description: Outfall 001</p> | | <p>Sample I.D.: Outfall001_20231222_Comp</p> | | <p>Sampling Date/Time: 12/22/2023 0935</p> | | <p>Sample Matrix: WM</p> | | <p>Container Type: 500 mL Poly</p> | | <p># of Cont.: 1</p> | | <p>Preservative: HNO₃</p> | | <p>Bottle #: 90</p> | | <p>MSM/SD: Yes</p> | | | |
| <p>Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187</p> | | <p>Eurofins Calscience's services under this COC shall be performed in accordance with the TCS within Blanket Service Agreement#2022-24-Eurofins by and between Halley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.</p> | | <p>Sampler: Adrien Mobeka</p> | | <p>Comments: Outfall 001 analyze for Fe Outfall 001 analyze for Mn and Fe</p> | | <p>Analysis Required:</p> | | <p>Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: _____ X _____ 48 Hour: _____ 5 Day: _____ Normal: _____</p> | | <p>Barcode: 570-165916 Chain of Custody</p> | | <p>Received By: [Signature] Date/Time: 12/22/23 1730</p> | | <p>Received By: [Signature] Date/Time: 12/22/23 1730</p> | | <p>Received By: [Signature] Date/Time: 12/22/23 1730</p> | | <p>Received By: [Signature] Date/Time: 12/22/23 1730</p> | | <p>Received By: [Signature] Date/Time: 12/22/23 1730</p> | | <p>Received By: [Signature] Date/Time: 12/22/23 1730</p> | |



165916

H4MW

Eurofins Calscience Tustin


CHAIN OF CUSTODY FORM

R R R R R R R/EP R R R R R C

| | | | | | | | | | | | | | | | | | | |
|---|--|---|--|---|-----------------------------------|---|-------------------------------------|--|---------------------------------|-----------------------|-------------------|------------------|---|--|---|--|------------------------|----------|
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 001 Comp | | ANALYSIS REQUIRED | | | | | | | | | | | | | | |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | Total Recoverable Metals: (E200.6); Zn (E200.6); Cu, Pb, Cd, Se | TCDD (and all congeners) (E1619B) | BOD5 (20 degrees C) (E405.1 (SM6210B_BODCalc)) | Surfactants (MBAS) (SM5540C/E425.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2 (SM2540D)) | Ammonia-N (950.2) | alpha-BHC (E608) | 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2- ethylhexyl)phthalate, NDMA, PCP (SVOCs E625) | Total Recoverable Metals: Mercury (E245.1) | Total Recoverable Metals: (E200.8); Mn, Fe | VOCs - 2CME only (E624) Week Labs in Haclenda Heights, CA | VOCs - A+A only (E624) | Comments |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement 2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | | | | | |
| Sampler: Adrien Mobeka | | | | | | | | | | | | | | | | | | |

| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MSMSD | Total Recoverable Metals: (E200.6); Zn (E200.6); Cu, Pb, Cd, Se | TCDD (and all congeners) (E1619B) | BOD5 (20 degrees C) (E405.1 (SM6210B_BODCalc)) | Surfactants (MBAS) (SM5540C/E425.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2 (SM2540D)) | Ammonia-N (950.2) | alpha-BHC (E608) | 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2- ethylhexyl)phthalate, NDMA, PCP (SVOCs E625) | Total Recoverable Metals: Mercury (E245.1) | Total Recoverable Metals: (E200.8); Mn, Fe | VOCs - 2CME only (E624) Week Labs in Haclenda Heights, CA | VOCs - A+A only (E624) | Comments | | | | |
|--------------------|--------------------------------|--------------------|---------------|-----------------|------------|--------------|----------|-------|---|-----------------------------------|---|-------------------------------------|--|---------------------------------|-----------------------|-------------------|------------------|---|--|---|--|------------------------|---|------|------|-------------------------------------|--|
| Outfall 001 | Outfall001_20231222_Comp | 12/22/2023 0935 | WM | 500 mL Poly | 1 | HNO3 | 90 | Yes | X | | | | | | | | | | X | X | | | Outfall 001 analyze for Fe Outfall 001 analyze for Mn and Fe | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | X | | | | | | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 115 | No | | | X | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | X | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | X | | | | | | | | | | | | 48 hours Holding Time NO3 & NO2 | |
| | | | WM | 500 mL Poly | 1 | None | 150 | No | | | | | | | X | | | | | | | | | | | 48 hours Holding Time for Turbidity | |
| | | | WM | 500 mL Poly | 1 | H2SO4 | 160 | No | | | | | | | | | | X | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | X | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | X | | | | | | |
| | | | WM | 1L Poly | 1 | None | 185 | No | | | | | | | | | X | | | | | | | | | | |
| 2 | Outfall001_20231222_Comp_Extra | 12/22/2023 0935 | WM | 1 L Glass Amber | 2 | None | 110 | No | | H | | | | | | | | | | | | | | Hold | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | H | | | | | | | | | | | | | Hold | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | H | | | | | | | | | | | | Hold | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | H | | | | | | Hold | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | H | | | | | Hold | |

Legend: C=Conditional, EP=Expert Panel, R=Routine

| | | |
|--|---|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12-21-2023/1252 Company: H&A | Received By: <i>[Signature]</i> EC Date/Time: 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> _____ 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> EC Date/Time: 12/22/23 1730 Company: H&A | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 |  |
| Relinquished By: _____ Date/Time: _____ Company: _____ | Received By: _____ Date/Time: _____ | |

1.8/2.2 1.2/1.6 2.0/2.4 SC14

570-165916 Chain of Custody

CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | | | | | | | | Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 001 Comp | | | | | | | | | ANALYSIS REQUIRED | | | | | | | | |
|---|----------------------------|--------------------|-----------------|--------------------|------------|------------------|----------|--------|---|-------------------------------|--|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | | | | | | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | | | | | | Total Dissolved Metals: (E200.B): Zn (E200.B): Cu, Pb, Cd, Se Cyanide (SM4500-CNE / E335.2) Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | | | | | | | | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs with the Service Agreement 2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | | | | | | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | Total Dissolved Metals: (E200.B): Mn, Fe | | | | | | | | |
| Sampler: Adrien Mobeka | | | | | | | | | Comments | | | | | | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Dissolved Metals: (E200.B): Zn (E200.B): Cu, Pb, Cd, Se | Cyanide (SM4500-CNE / E335.2) | Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | Total Dissolved Metals: (E200.B): Mn, Fe | Comments | | | | | | | | | | | | | |
| Outfall 001 | Outfall001_20231222_Comp_F | 12/22/2023 / 0935 | WM | 1 L Poly | 1 | None | 190 | Yes | X | | | | Filter and preserve w/in 24hrs of receipt at lab | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 1 | HNO ₃ | 80 | No | | | | | | | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 200 | No | | | | X | Filter and preserve w/in 24hrs of receipt at lab. Outfall 001 analyze for Fe | | | | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 250 | No | | | | | | | | | | | | | | | | | | |
| | | | WM | borosilicate vials | 2 | None | 320 | No | | | | X | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures | | | | | | | | | | | | |
| Outfall001_20231222_Comp | 12/22/2023 / 0935 | WM | 500 mL Poly | 1 | NaOH | 220 | No | | X | | | | | | | | | | | | | | | | | |
| | | WM | 2.5 Gal Cube | 1 | None | 225 | No | | | X | | | Unfiltered and unpreserved analysis. Separate RAD onto another workorder. Analyze duplicate, not MS/MSD. | | | | | | | | | | | | | |
| | | WM | 1 L Glass Amber | 1 | None | 230 | No | | | | | | | | | | | | | | | | | | | |

Legend: C=Conditional, EP=Expert Panel, R=Routine, QRSW=Quarterly Receiving Water

| | | |
|--|--|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12-21-2023 / 1252 Company: <i>[Signature]</i> | Received By: <i>[Signature]</i> Date/Time: EC 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> X 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> Date/Time: EC 12/22/23 1730 Company: <i>[Signature]</i> | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 | Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <input checked="" type="checkbox"/> X |

Eurofins Calscience

2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record



Environment Testing

| | | | | | | | | | | | |
|--|--|----------------------------------|--|---|--|--|--|--|--|--|--|
| Client Information (Sub Contract Lab) | | Sampler: | | Lab PM: Patel, Virendra | | Carrier Tracking No(s): | | COC No: 570-334300.1 | | | |
| Client Contact: Shipping/Receiving | | Phone: | | E-Mail: Virendra.Patel@et.eurofinsus.com | | State of Origin: California | | Page: Page 1 of 1 | | | |
| Company: Weck Laboratories, Inc. | | | | Accreditations Required (See note): State - California; State Program - California | | | | Job #: 570-165916-3 | | | |
| Address: 14859 East Clark Avenue, | | Due Date Requested: 1/10/2024 | | Analysis Requested | | | | | | Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify) | |
| City: City of Industry | | TAT Requested (days): | | | | | | | | | |
| State, Zip: CA, 917451396 | | PO #: | | Field Filtered Sample (Yes or No) | | Perform MS/MSD (Yes or No) | | SUB (VOCs-20VE only (E624)) | | Total Number of containers | |
| Phone: | | WO #: | | | | | | | | | |
| Email: | | Project #: 57013187 | | Project Name: Boeing NPDES SSFL - Outfall 001 - Comp | | SSOW#: | | Other: | | Special Instructions/Note: | |
| Site: | | Sample Date | | Sample Time | | Sample Type (C=comp, G=grab) | | Matrix (W=water, S=solid, O=waste/oli, BT=Tissue, AA=Air) | | | |
| Sample Identification - Client ID (Lab ID) | | Sample Date | | Sample Time | | Sample Type (C=comp, G=grab) | | Matrix (W=water, S=solid, O=waste/oli, BT=Tissue, AA=Air) | | Preservation Code: | |
| Outfall001_20231222_Comp (570-165916-1) | | 12/22/23 | | 09:35 Pacific | | Water | | X | | 3 See Attached Instructions | |
| Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience. | | | | | | | | | | | |
| Possible Hazard Identification | | | | | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | | | | | |
| Unconfirmed | | | | | | <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months | | | | | |
| Deliverable Requested: I, II, III, IV, Other (specify) | | | | Primary Deliverable Rank: 2 | | Special Instructions/QC Requirements: | | | | | |
| Empty Kit Relinquished by: | | | | Date: | | Time: | | Method of Shipment: | | | |
| Relinquished by: <i>[Signature]</i> | | | | Date/Time: 12/26/23 1400 | | Company: EC | | Received by: | | Date/Time: | |
| Relinquished by: | | | | Date/Time: | | Company: | | Received by: | | Date/Time: | |
| Relinquished by: | | | | Date/Time: | | Company: | | Received by: | | Date/Time: | |
| Custody Seals Intact: | | Custody Seal No.: | | Cooler Temperature(s) °C and Other Remarks: | | | | | | | |
| Δ Yes Δ No | | | | | | | | | | | |



ICOC No:
570-334300

Containers

| <u>Count</u> | <u>Container Type</u> | <u>Preservative</u> |
|--------------|-----------------------------|---------------------|
| 3 | Voa Vial 40ml - unpreserved | None |

Subcontract Method Instructions

| Sample IDs | Method | Method Description | Method Comments |
|------------|-------------|-----------------------------|---------------------------------|
| 1 | SUBCONTRACT | SUB (VOCs-2CVE only (E624)) | Level IV package, MDL, EQUIS 5C |



Eurofins Calscience
 2841 Dow Avenue, Suite 100
 Tustin, CA 92780
 Phone: 714-895-5494

Chain of Custody Record



Environment Testing



| | | | | | | | | | | | | | |
|--|---------------|--|---------------------------------------|-----------------------------------|----------------------------|--|-----------------------------------|----------------------------|---------------------------|--------------------------------|-----------------------------|----------------------------|--|
| Client Information (Sub Contract Lab) | | Sampler: | Lab Pk: | Center Tracking No(s): | COC No: | | | | | | | | |
| Client Contact: Shipping/Receiving | | Patel, Virendra | Patel, Virendra | State of Origin: California | 570-334697.1 | | | | | | | | |
| Company: TestAmerica Laboratories, Inc. | | E-Mail: Virendra.Patel@eurofins.com | Page: 1 of 1 | | | | | | | | | | |
| Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email: | | Accreditations Required (See note): State - California; State Program - California | | | | | | | | | | | |
| Project Name: Boeing NPDES SSFL - Outfall 001 - Comp Site: | | Due Date Requested: 1/30/2024 TAT Requested (days): | Job #: 570-165916-3 | | | | | | | | | | |
| Project #: 57013187 SSOWN: | | Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) Other: | | | | | | | | | | | |
| Sample Identification - Client ID (Lab ID) | | Analysis Requested | | | | | | | | | | | |
| Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (Water, Seawater, Urine, etc.) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 901.1.Ce/Fill_Geo.0-K-40 and Csium-137 | 900.0/Evaportion_Gross Alpha/Beta | 903.0/Precep_21 Radium-226 | 904.0/Precep_0 Radium-228 | 905.5/90/Precep_7 Strontium-90 | 906.0/LSC_Dist_Susp Tritium | Total Number of containers | Special Instructions/Note: |
| 12/22/23 | 09:35 Pacific | Water | Water | X | X | X | X | X | X | X | X | 2 | Boiling SSFL; DO NOT FILTER; use prep date from preservation |
| <p>Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.</p> | | | | | | | | | | | | | |
| <p>Possible Hazard Identification <input type="checkbox"/> Unconfirmed <input type="checkbox"/> Deliverable Requested: I, II, III, IV, Other (specify) <input type="checkbox"/> Empty Kit Relinquished by: <input type="checkbox"/> Relinquished by: <input type="checkbox"/> Relinquished by: <input type="checkbox"/> Relinquished by: <input type="checkbox"/> Custody Seals Intact: Custody Seal No.: <input type="checkbox"/> Δ Yes Δ No</p> | | | | | | | | | | | | | |
| <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> | | | | | | | | | | | | | |
| <p>Special Instructions/QC Requirements: Method of Shipment: Received by: Richard Thornley Date/Time: DEC 29 2023 0840 Company: ETA STL Received by: Date/Time: Company: Received by: Date/Time: Company: Cooler Temperature(s) °C and Other Remarks:</p> | | | | | | | | | | | | | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165916-3

Login Number: 165916

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165916-3

Login Number: 165916

List Number: 3

Creator: Thornley, Richard W

List Source: Eurofins St. Louis

List Creation: 12/29/23 12:48 PM

| Question | Answer | Comment |
|--|--------|-----------------------------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | N/A | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | Sample preserved on arrival |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |





ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/6/2024 10:53:33 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 002 - Grab

JOB NUMBER

570-165636-1

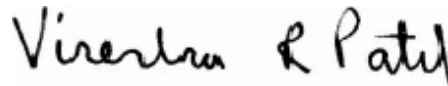
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Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| LQ | LCS/LCSD recovery above method control limits |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Job ID: 570-165636-1

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Job Narrative 570-165636-1

Receipt

The samples were received on 12/21/2023 5:10 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

Receipt Exceptions

The number of containers for the following samples did not match the information listed on the Chain-of-Custody (COC): Outfall002_20231221_Grab_Extra (570-165636-2). Received 8 containers, while the COC lists 6.

Received two extra 1L amber w/HCl without ID on the label(collection date/time matched).

GC/MS VOA

Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-395544. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 624.1: The continuing calibration verification (CCV) associated with batch 570-395544 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: Outfall002_20231221_Grab (570-165636-1), TB-20231221 (570-165636-3) and (CCVIS 570-395544/3).

Method 624.1: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 570-395544 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 624.1: The method blank for analytical batch 570-395544 contained Chloroform above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 624.1: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following samples were received preserved with hydrochloric acid: Outfall002_20231221_Grab (570-165636-1) and TB-20231221 (570-165636-3). The requested target analyte list contains 2-Chloroethyl vinyl ether and/or Acrolein, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method SM 2540F: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with analytical batch 570-395731.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method 1664A: The reference method requires samples to be preserved to a pH of 2. The following sample was received with insufficient preservation at a pH of 6: Outfall002_20231221_Grab (570-165636-1). The sample(s) was preserved to the appropriate pH in the laboratory. Method 1664.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Client Sample ID: Outfall002_20231221_Grab

Lab Sample ID: 570-165636-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|------|------|----------|---------|---|----------|-----------|
| Specific Conductance | 860 | | 1.0 | 1.0 | umhos/cm | 1 | | SM 2510B | Total/NA |
| Settleable Solids | 0.10 | | 0.10 | 0.10 | mL/L | 1 | | SM 2540F | Total/NA |

Client Sample ID: TB-20231221

Lab Sample ID: 570-165636-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Client Sample ID: Outfall002_20231221_Grab

Lab Sample ID: 570-165636-1

Date Collected: 12/21/23 07:15

Matrix: Water

Date Received: 12/21/23 17:10

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 12/22/23 14:55 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.20 | ug/L | | | 12/22/23 14:55 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 2.0 | 0.33 | ug/L | | | 12/22/23 14:55 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.17 | ug/L | | | 12/22/23 14:55 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.39 | ug/L | | | 12/22/23 14:55 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.33 | ug/L | | | 12/22/23 14:55 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/22/23 14:55 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.15 | ug/L | | | 12/22/23 14:55 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.17 | ug/L | | | 12/22/23 14:55 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/22/23 14:55 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.11 | ug/L | | | 12/22/23 14:55 | 1 |
| Acrolein | ND | | 5.0 | 4.6 | ug/L | | | 12/22/23 14:55 | 1 |
| Acrylonitrile | ND | | 2.0 | 1.4 | ug/L | | | 12/22/23 14:55 | 1 |
| Benzene | ND | | 0.50 | 0.28 | ug/L | | | 12/22/23 14:55 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.19 | ug/L | | | 12/22/23 14:55 | 1 |
| Bromoform | ND | | 1.0 | 0.25 | ug/L | | | 12/22/23 14:55 | 1 |
| Bromomethane | ND | | 0.50 | 0.22 | ug/L | | | 12/22/23 14:55 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.28 | ug/L | | | 12/22/23 14:55 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.19 | ug/L | | | 12/22/23 14:55 | 1 |
| Chloroethane | ND | | 1.0 | 0.29 | ug/L | | | 12/22/23 14:55 | 1 |
| Chloroform | ND | | 0.50 | 0.19 | ug/L | | | 12/22/23 14:55 | 1 |
| Chloromethane | ND | LQ | 0.50 | 0.30 | ug/L | | | 12/22/23 14:55 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/22/23 14:55 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.30 | ug/L | | | 12/22/23 14:55 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.15 | ug/L | | | 12/22/23 14:55 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 12/22/23 14:55 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.57 | ug/L | | | 12/22/23 14:55 | 1 |
| Naphthalene | ND | | 1.0 | 0.33 | ug/L | | | 12/22/23 14:55 | 1 |
| o-Xylene | ND | | 0.50 | 0.15 | ug/L | | | 12/22/23 14:55 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.17 | ug/L | | | 12/22/23 14:55 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/22/23 14:55 | 1 |
| Toluene | ND | | 0.50 | 0.23 | ug/L | | | 12/22/23 14:55 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.24 | ug/L | | | 12/22/23 14:55 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.18 | ug/L | | | 12/22/23 14:55 | 1 |
| Trichloroethene | ND | | 0.50 | 0.17 | ug/L | | | 12/22/23 14:55 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.29 | ug/L | | | 12/22/23 14:55 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.47 | ug/L | | | 12/22/23 14:55 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.17 | ug/L | | | 12/22/23 14:55 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 105 | | 60 - 140 | | 12/22/23 14:55 | 1 |
| Dibromofluoromethane (Surr) | 107 | | 60 - 140 | | 12/22/23 14:55 | 1 |
| Toluene-d8 (Surr) | 101 | | 60 - 140 | | 12/22/23 14:55 | 1 |

Client Sample ID: TB-20231221

Lab Sample ID: 570-165636-3

Date Collected: 12/21/23 07:15

Matrix: Water

Date Received: 12/21/23 17:10

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 12/22/23 11:12 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.20 | ug/L | | | 12/22/23 11:12 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TB-20231221
Date Collected: 12/21/23 07:15
Date Received: 12/21/23 17:10

Lab Sample ID: 570-165636-3
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 2.0 | 0.33 | ug/L | | | 12/22/23 11:12 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.17 | ug/L | | | 12/22/23 11:12 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.39 | ug/L | | | 12/22/23 11:12 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.33 | ug/L | | | 12/22/23 11:12 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/22/23 11:12 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.15 | ug/L | | | 12/22/23 11:12 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.17 | ug/L | | | 12/22/23 11:12 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/22/23 11:12 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.11 | ug/L | | | 12/22/23 11:12 | 1 |
| Acrolein | ND | | 5.0 | 4.6 | ug/L | | | 12/22/23 11:12 | 1 |
| Acrylonitrile | ND | | 2.0 | 1.4 | ug/L | | | 12/22/23 11:12 | 1 |
| Benzene | ND | | 0.50 | 0.28 | ug/L | | | 12/22/23 11:12 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.19 | ug/L | | | 12/22/23 11:12 | 1 |
| Bromoform | ND | | 1.0 | 0.25 | ug/L | | | 12/22/23 11:12 | 1 |
| Bromomethane | ND | | 0.50 | 0.22 | ug/L | | | 12/22/23 11:12 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.28 | ug/L | | | 12/22/23 11:12 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.19 | ug/L | | | 12/22/23 11:12 | 1 |
| Chloroethane | ND | | 1.0 | 0.29 | ug/L | | | 12/22/23 11:12 | 1 |
| Chloroform | ND | | 0.50 | 0.19 | ug/L | | | 12/22/23 11:12 | 1 |
| Chloromethane | ND | LQ | 0.50 | 0.30 | ug/L | | | 12/22/23 11:12 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/22/23 11:12 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.30 | ug/L | | | 12/22/23 11:12 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.15 | ug/L | | | 12/22/23 11:12 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 12/22/23 11:12 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.57 | ug/L | | | 12/22/23 11:12 | 1 |
| Naphthalene | ND | | 1.0 | 0.33 | ug/L | | | 12/22/23 11:12 | 1 |
| o-Xylene | ND | | 0.50 | 0.15 | ug/L | | | 12/22/23 11:12 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.17 | ug/L | | | 12/22/23 11:12 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/22/23 11:12 | 1 |
| Toluene | ND | | 0.50 | 0.23 | ug/L | | | 12/22/23 11:12 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.24 | ug/L | | | 12/22/23 11:12 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.18 | ug/L | | | 12/22/23 11:12 | 1 |
| Trichloroethene | ND | | 0.50 | 0.17 | ug/L | | | 12/22/23 11:12 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.29 | ug/L | | | 12/22/23 11:12 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.47 | ug/L | | | 12/22/23 11:12 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.17 | ug/L | | | 12/22/23 11:12 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 103 | | 60 - 140 | | | | | 12/22/23 11:12 | 1 |
| Dibromofluoromethane (Surr) | 108 | | 60 - 140 | | | | | 12/22/23 11:12 | 1 |
| Toluene-d8 (Surr) | 102 | | 60 - 140 | | | | | 12/22/23 11:12 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

General Chemistry

Client Sample ID: Outfall002_20231221_Grab

Date Collected: 12/21/23 07:15

Date Received: 12/21/23 17:10

Lab Sample ID: 570-165636-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|--------|-----------|------|------|----------|---|----------------|----------------|---------|
| HEM (Oil & Grease) (1664A) | ND | | 0.96 | 0.49 | mg/L | | 12/27/23 11:39 | 12/28/23 07:05 | 1 |
| Specific Conductance (SM 2510B) | 860 | | 1.0 | 1.0 | umhos/cm | | | 01/02/24 16:28 | 1 |
| Settleable Solids (SM 2540F) | 0.10 | | 0.10 | 0.10 | mL/L | | | 12/22/23 12:38 | 1 |

Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB | DBFM | TOL |
|---------------------|--------------------------|----------|----------|----------|
| | | (60-140) | (60-140) | (60-140) |
| 570-165636-1 | Outfall002_20231221_Grab | 105 | 107 | 101 |
| 570-165636-3 | TB-20231221 | 103 | 108 | 102 |
| LCS 570-395544/1003 | Lab Control Sample | 105 | 107 | 99 |
| LCSD 570-395544/4 | Lab Control Sample Dup | 101 | 107 | 99 |
| MB 570-395544/6 | Method Blank | 102 | 108 | 100 |

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-395544/6
Matrix: Water
Analysis Batch: 395544

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB | MB | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 12/22/23 09:43 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.20 | ug/L | | | 12/22/23 09:43 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 2.0 | 0.33 | ug/L | | | 12/22/23 09:43 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.17 | ug/L | | | 12/22/23 09:43 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.39 | ug/L | | | 12/22/23 09:43 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.33 | ug/L | | | 12/22/23 09:43 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/22/23 09:43 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.15 | ug/L | | | 12/22/23 09:43 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.17 | ug/L | | | 12/22/23 09:43 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.16 | ug/L | | | 12/22/23 09:43 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.11 | ug/L | | | 12/22/23 09:43 | 1 |
| Acrolein | ND | | 5.0 | 4.6 | ug/L | | | 12/22/23 09:43 | 1 |
| Acrylonitrile | ND | | 2.0 | 1.4 | ug/L | | | 12/22/23 09:43 | 1 |
| Benzene | ND | | 0.50 | 0.28 | ug/L | | | 12/22/23 09:43 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.19 | ug/L | | | 12/22/23 09:43 | 1 |
| Bromoform | ND | | 1.0 | 0.25 | ug/L | | | 12/22/23 09:43 | 1 |
| Bromomethane | ND | | 0.50 | 0.22 | ug/L | | | 12/22/23 09:43 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.28 | ug/L | | | 12/22/23 09:43 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.19 | ug/L | | | 12/22/23 09:43 | 1 |
| Chloroethane | ND | | 1.0 | 0.29 | ug/L | | | 12/22/23 09:43 | 1 |
| Chloroform | 0.214 | J,DX | 0.50 | 0.19 | ug/L | | | 12/22/23 09:43 | 1 |
| Chloromethane | ND | | 0.50 | 0.30 | ug/L | | | 12/22/23 09:43 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/22/23 09:43 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.30 | ug/L | | | 12/22/23 09:43 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.15 | ug/L | | | 12/22/23 09:43 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 12/22/23 09:43 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.57 | ug/L | | | 12/22/23 09:43 | 1 |
| Naphthalene | ND | | 1.0 | 0.33 | ug/L | | | 12/22/23 09:43 | 1 |
| o-Xylene | ND | | 0.50 | 0.15 | ug/L | | | 12/22/23 09:43 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.17 | ug/L | | | 12/22/23 09:43 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.21 | ug/L | | | 12/22/23 09:43 | 1 |
| Toluene | ND | | 0.50 | 0.23 | ug/L | | | 12/22/23 09:43 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.24 | ug/L | | | 12/22/23 09:43 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.18 | ug/L | | | 12/22/23 09:43 | 1 |
| Trichloroethene | ND | | 0.50 | 0.17 | ug/L | | | 12/22/23 09:43 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.29 | ug/L | | | 12/22/23 09:43 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.47 | ug/L | | | 12/22/23 09:43 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.17 | ug/L | | | 12/22/23 09:43 | 1 |

| Surrogate | MB | MB | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 4-Bromofluorobenzene (Surr) | 102 | | 60 - 140 | | 12/22/23 09:43 | 1 |
| Dibromofluoromethane (Surr) | 108 | | 60 - 140 | | 12/22/23 09:43 | 1 |
| Toluene-d8 (Surr) | 100 | | 60 - 140 | | 12/22/23 09:43 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-395544/1003
Matrix: Water
Analysis Batch: 395544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------------------------|-------------|------------|---------------|------|---|------|-------------|
| 1,1,1-Trichloroethane | 10.0 | 9.76 | | ug/L | | 98 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 10.8 | | ug/L | | 108 | 60 - 140 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 10.0 | 8.13 | | ug/L | | 81 | 60 - 140 |
| 1,1,2-Trichloroethane | 10.0 | 10.7 | | ug/L | | 107 | 70 - 130 |
| 1,1-Dichloroethane | 10.0 | 12.0 | | ug/L | | 120 | 70 - 130 |
| 1,1-Dichloroethene | 10.0 | 10.4 | | ug/L | | 104 | 50 - 150 |
| 1,2-Dichlorobenzene | 10.0 | 9.84 | | ug/L | | 98 | 65 - 135 |
| 1,2-Dichloroethane | 10.0 | 11.0 | | ug/L | | 110 | 70 - 130 |
| 1,2-Dichloropropane | 10.0 | 11.2 | | ug/L | | 112 | 35 - 165 |
| 1,3-Dichlorobenzene | 10.0 | 9.97 | | ug/L | | 100 | 70 - 130 |
| 1,4-Dichlorobenzene | 10.0 | 10.1 | | ug/L | | 101 | 65 - 135 |
| Acrolein | 20.0 | 15.4 | | ug/L | | 77 | 60 - 140 |
| Acrylonitrile | 10.0 | 12.4 | | ug/L | | 124 | 60 - 140 |
| Benzene | 10.0 | 10.0 | | ug/L | | 100 | 65 - 135 |
| Bromodichloromethane | 10.0 | 10.4 | | ug/L | | 104 | 65 - 135 |
| Bromoform | 10.0 | 11.0 | | ug/L | | 110 | 70 - 130 |
| Bromomethane | 10.0 | 8.06 | | ug/L | | 81 | 15 - 185 |
| Carbon tetrachloride | 10.0 | 9.35 | | ug/L | | 93 | 70 - 130 |
| Chlorobenzene | 10.0 | 10.1 | | ug/L | | 101 | 65 - 135 |
| Chloroethane | 10.0 | 10.7 | | ug/L | | 107 | 40 - 160 |
| Chloroform | 10.0 | 10.8 | | ug/L | | 108 | 70 - 135 |
| Chloromethane | 10.0 | 23.7 | LQ | ug/L | | 237 | 1 - 205 |
| cis-1,2-Dichloroethene | 10.0 | 10.4 | | ug/L | | 104 | 60 - 140 |
| cis-1,3-Dichloropropene | 10.0 | 10.8 | | ug/L | | 108 | 25 - 175 |
| Dibromochloromethane | 10.0 | 10.6 | | ug/L | | 106 | 70 - 135 |
| Ethylbenzene | 10.0 | 9.96 | | ug/L | | 100 | 60 - 140 |
| Methylene Chloride | 10.0 | 10.1 | | ug/L | | 101 | 60 - 140 |
| Naphthalene | 10.0 | 9.53 | | ug/L | | 95 | 60 - 140 |
| o-Xylene | 10.0 | 10.2 | | ug/L | | 102 | 60 - 140 |
| m,p-Xylene | 20.0 | 20.3 | | ug/L | | 102 | 60 - 140 |
| Tetrachloroethene | 10.0 | 8.54 | | ug/L | | 85 | 70 - 130 |
| Toluene | 10.0 | 9.72 | | ug/L | | 97 | 70 - 130 |
| trans-1,2-Dichloroethene | 10.0 | 9.50 | | ug/L | | 95 | 70 - 130 |
| trans-1,3-Dichloropropene | 10.0 | 11.6 | | ug/L | | 116 | 50 - 150 |
| Trichloroethene | 10.0 | 9.46 | | ug/L | | 95 | 65 - 135 |
| Trichlorofluoromethane | 10.0 | 10.6 | | ug/L | | 106 | 50 - 150 |
| Vinyl chloride | 10.0 | 11.6 | | ug/L | | 116 | 5 - 195 |
| Xylenes, Total | 30.0 | 30.5 | | ug/L | | 102 | 60 - 140 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 105 | | 60 - 140 |
| Dibromofluoromethane (Surr) | 107 | | 60 - 140 |
| Toluene-d8 (Surr) | 99 | | 60 - 140 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-395544/4
 Matrix: Water
 Analysis Batch: 395544

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------------------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| 1,1,1-Trichloroethane | 10.0 | 10.2 | | ug/L | | 102 | 70 - 130 | 4 | 36 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 11.4 | | ug/L | | 114 | 60 - 140 | 5 | 61 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 10.0 | 8.11 | | ug/L | | 81 | 60 - 140 | 0 | 30 |
| 1,1,2-Trichloroethane | 10.0 | 11.0 | | ug/L | | 110 | 70 - 130 | 3 | 45 |
| 1,1-Dichloroethane | 10.0 | 12.2 | | ug/L | | 122 | 70 - 130 | 2 | 40 |
| 1,1-Dichloroethene | 10.0 | 10.7 | | ug/L | | 107 | 50 - 150 | 3 | 32 |
| 1,2-Dichlorobenzene | 10.0 | 10.4 | | ug/L | | 104 | 65 - 135 | 6 | 57 |
| 1,2-Dichloroethane | 10.0 | 11.9 | | ug/L | | 119 | 70 - 130 | 8 | 49 |
| 1,2-Dichloropropane | 10.0 | 12.1 | | ug/L | | 121 | 35 - 165 | 8 | 55 |
| 1,3-Dichlorobenzene | 10.0 | 10.6 | | ug/L | | 106 | 70 - 130 | 6 | 43 |
| 1,4-Dichlorobenzene | 10.0 | 10.5 | | ug/L | | 105 | 65 - 135 | 4 | 57 |
| Acrolein | 20.0 | 18.1 | | ug/L | | 90 | 60 - 140 | 16 | 60 |
| Acrylonitrile | 10.0 | 13.1 | | ug/L | | 131 | 60 - 140 | 5 | 60 |
| Benzene | 10.0 | 10.7 | | ug/L | | 107 | 65 - 135 | 6 | 61 |
| Bromodichloromethane | 10.0 | 11.2 | | ug/L | | 112 | 65 - 135 | 7 | 56 |
| Bromoform | 10.0 | 11.1 | | ug/L | | 111 | 70 - 130 | 2 | 42 |
| Bromomethane | 10.0 | 7.68 | | ug/L | | 77 | 15 - 185 | 5 | 61 |
| Carbon tetrachloride | 10.0 | 9.89 | | ug/L | | 99 | 70 - 130 | 6 | 41 |
| Chlorobenzene | 10.0 | 10.7 | | ug/L | | 107 | 65 - 135 | 5 | 53 |
| Chloroethane | 10.0 | 10.8 | | ug/L | | 108 | 40 - 160 | 1 | 78 |
| Chloroform | 10.0 | 11.4 | | ug/L | | 114 | 70 - 135 | 5 | 30 |
| Chloromethane | 10.0 | 22.7 | LQ | ug/L | | 227 | 1 - 205 | 4 | 60 |
| cis-1,2-Dichloroethene | 10.0 | 10.9 | | ug/L | | 109 | 60 - 140 | 4 | 30 |
| cis-1,3-Dichloropropene | 10.0 | 11.6 | | ug/L | | 116 | 25 - 175 | 7 | 58 |
| Dibromochloromethane | 10.0 | 10.8 | | ug/L | | 108 | 70 - 135 | 2 | 50 |
| Ethylbenzene | 10.0 | 10.6 | | ug/L | | 106 | 60 - 140 | 6 | 63 |
| Methylene Chloride | 10.0 | 9.99 | | ug/L | | 100 | 60 - 140 | 2 | 28 |
| Naphthalene | 10.0 | 10.4 | | ug/L | | 104 | 60 - 140 | 8 | 30 |
| o-Xylene | 10.0 | 10.5 | | ug/L | | 105 | 60 - 140 | 3 | 30 |
| m,p-Xylene | 20.0 | 21.4 | | ug/L | | 107 | 60 - 140 | 5 | 30 |
| Tetrachloroethene | 10.0 | 9.18 | | ug/L | | 92 | 70 - 130 | 7 | 39 |
| Toluene | 10.0 | 10.2 | | ug/L | | 102 | 70 - 130 | 5 | 41 |
| trans-1,2-Dichloroethene | 10.0 | 10.0 | | ug/L | | 100 | 70 - 130 | 5 | 45 |
| trans-1,3-Dichloropropene | 10.0 | 11.9 | | ug/L | | 119 | 50 - 150 | 2 | 86 |
| Trichloroethene | 10.0 | 9.96 | | ug/L | | 100 | 65 - 135 | 5 | 48 |
| Trichlorofluoromethane | 10.0 | 11.2 | | ug/L | | 112 | 50 - 150 | 6 | 84 |
| Vinyl chloride | 10.0 | 12.5 | | ug/L | | 125 | 5 - 195 | 8 | 66 |
| Xylenes, Total | 30.0 | 31.9 | | ug/L | | 106 | 60 - 140 | 4 | 30 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|-----------------------------|----------------|----------------|-------------|
| 4-Bromofluorobenzene (Surr) | 101 | | 60 - 140 |
| Dibromofluoromethane (Surr) | 107 | | 60 - 140 |
| Toluene-d8 (Surr) | 99 | | 60 - 140 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-396327/1-A
Matrix: Water
Analysis Batch: 396613

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396327

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| HEM (Oil & Grease) | ND | | 1.0 | 0.51 | mg/L | | 12/27/23 11:39 | 12/28/23 07:05 | 1 |

Lab Sample ID: LCS 570-396327/2-A
Matrix: Water
Analysis Batch: 396613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396327

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|-------------|------------|---------------|------|---|------|-------------|
| HEM (Oil & Grease) | 40.0 | 31.7 | | mg/L | | 79 | 78 - 114 |

Lab Sample ID: LCSD 570-396327/3-A
Matrix: Water
Analysis Batch: 396613

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 396327

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| HEM (Oil & Grease) | 40.0 | 31.8 | | mg/L | | 80 | 78 - 114 | 0 | 18 |

Lab Sample ID: MB 570-397937/1-A
Matrix: Water
Analysis Batch: 398028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 397937

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| HEM (Oil & Grease) | ND | | 1.0 | 0.51 | mg/L | | 01/03/24 09:11 | 01/03/24 11:33 | 1 |

Lab Sample ID: LCS 570-397937/2-A
Matrix: Water
Analysis Batch: 398028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 397937

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|-------------|------------|---------------|------|---|------|-------------|
| HEM (Oil & Grease) | 40.0 | 33.5 | | mg/L | | 84 | 78 - 114 |

Lab Sample ID: LCSD 570-397937/3-A
Matrix: Water
Analysis Batch: 398028

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 397937

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| HEM (Oil & Grease) | 40.0 | 33.3 | | mg/L | | 83 | 78 - 114 | 1 | 18 |

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 570-397836/10
Matrix: Water
Analysis Batch: 397836

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|-----------|--------------|-----|-----|----------|---|----------|----------------|---------|
| Specific Conductance | ND | | 1.0 | 1.0 | umhos/cm | | | 01/02/24 16:08 | 1 |

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

GC/MS VOA

Analysis Batch: 395544

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165636-1 | Outfall002_20231221_Grab | Total/NA | Water | 624.1 | |
| 570-165636-3 | TB-20231221 | Total/NA | Water | 624.1 | |
| MB 570-395544/6 | Method Blank | Total/NA | Water | 624.1 | |
| LCS 570-395544/1003 | Lab Control Sample | Total/NA | Water | 624.1 | |
| LCSD 570-395544/4 | Lab Control Sample Dup | Total/NA | Water | 624.1 | |

General Chemistry

Analysis Batch: 395731

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|----------|------------|
| 570-165636-1 | Outfall002_20231221_Grab | Total/NA | Water | SM 2540F | |

Prep Batch: 396327

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165636-1 | Outfall002_20231221_Grab | Total/NA | Water | 1664A | |
| MB 570-396327/1-A | Method Blank | Total/NA | Water | 1664A | |
| LCS 570-396327/2-A | Lab Control Sample | Total/NA | Water | 1664A | |
| LCSD 570-396327/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | |

Analysis Batch: 396613

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165636-1 | Outfall002_20231221_Grab | Total/NA | Water | 1664A | 396327 |
| MB 570-396327/1-A | Method Blank | Total/NA | Water | 1664A | 396327 |
| LCS 570-396327/2-A | Lab Control Sample | Total/NA | Water | 1664A | 396327 |
| LCSD 570-396327/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | 396327 |

Analysis Batch: 397836

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------------|-----------|--------|----------|------------|
| 570-165636-1 | Outfall002_20231221_Grab | Total/NA | Water | SM 2510B | |
| MB 570-397836/10 | Method Blank | Total/NA | Water | SM 2510B | |

Prep Batch: 397937

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| MB 570-397937/1-A | Method Blank | Total/NA | Water | 1664A | |
| LCS 570-397937/2-A | Lab Control Sample | Total/NA | Water | 1664A | |
| LCSD 570-397937/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | |

Analysis Batch: 398028

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| MB 570-397937/1-A | Method Blank | Total/NA | Water | 1664A | 397937 |
| LCS 570-397937/2-A | Lab Control Sample | Total/NA | Water | 1664A | 397937 |
| LCSD 570-397937/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | 397937 |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Client Sample ID: Outfall002_20231221_Grab

Lab Sample ID: 570-165636-1

Date Collected: 12/21/23 07:15

Matrix: Water

Date Received: 12/21/23 17:10

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|------------------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Analysis | 624.1 | | 1 | 10 mL | 10 mL | 395544 | 12/22/23 14:55 | VYF4 | EET CAL 4 |
| Instrument ID: GCMSJJ | | | | | | | | | | |
| Total/NA | Prep | 1664A | | | 1043 mL | 1000 mL | 396327 | 12/27/23 11:39 | YTB4 | EET CAL 4 |
| Total/NA | Analysis | 1664A | | 1 | | | 396613 | 12/28/23 07:05 | VB5S | EET CAL 4 |
| Instrument ID: NO EQUIQ | | | | | | | | | | |
| Total/NA | Analysis | SM 2510B | | 1 | | | 397836 | 01/02/24 16:28 | ZL4M | EET CAL 4 |
| Instrument ID: ManSciMantech | | | | | | | | | | |
| Total/NA | Analysis | SM 2540F | | 1 | 1000 mL | 1 L | 395731 | 12/22/23 12:38 | ZVB7 | EET CAL 4 |
| Instrument ID: NOEQUIP | | | | | | | | | | |

Client Sample ID: TB-20231221

Lab Sample ID: 570-165636-3

Date Collected: 12/21/23 07:15

Matrix: Water

Date Received: 12/21/23 17:10

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Analysis | 624.1 | | 1 | 10 mL | 10 mL | 395544 | 12/22/23 11:12 | VYF4 | EET CAL 4 |
| Instrument ID: GCMSJJ | | | | | | | | | | |

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|------------|---|-----------------------|-----------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

| Method | Method Description | Protocol | Laboratory |
|----------|------------------------------------|----------|------------|
| 624.1 | Volatile Organic Compounds (GC/MS) | EPA | EET CAL 4 |
| 1664A | HEM and SGT-HEM | 1664A | EET CAL 4 |
| SM 2510B | Conductivity, Specific Conductance | SM | EET CAL 4 |
| SM 2540F | Solids, Settleable | SM | EET CAL 4 |
| 1664A | HEM and SGT-HEM (Aqueous) | 1664A | EET CAL 4 |

Protocol References:

- 1664A = EPA-821-98-002
- EPA = US Environmental Protection Agency
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

- EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-165636-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165636-1 | Outfall002_20231221_Grab | Water | 12/21/23 07:15 | 12/21/23 17:10 |
| 570-165636-3 | TB-20231221 | Water | 12/21/23 07:15 | 12/21/23 17:10 |

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CHAIN OF CUSTODY FORM

| | | | | | | | |
|--|--|---|--|---|--|--|-----------------------------|
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 002 Grab | | ANALYSIS REQUIRED | | Field Readings | Meter serial # <u>15RA2</u> |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | Oil & Grease (E1664A-HEM) | | Field Readings: (Include units) Time of Readings: <u>0720</u> | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement #2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | VOCs + 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) (E624) | | DO <u>13.9</u> mg/L pH <u>7.20</u> pH unit Temp <u>54.9</u> °C/F | |
| Sampler: Mark Dominick | | | | Settleable Solids (E160.5 (SM2540F)) | | Field readings QC | |
| | | | | Conductivity (SM2510B / E120.1) | | Checked by: <u>[Signature]</u> Date/Time: <u>0720</u> | |

| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Oil & Grease (E1664A-HEM) | VOCs + 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) (E624) | Settleable Solids (E160.5 (SM2540F)) | Conductivity (SM2510B / E120.1) | Comments |
|--------------------|--------------------------------|--------------------|---------------|-----------------|------------|--------------|----------|--------|---------------------------|---|--------------------------------------|---------------------------------|----------|
| Outfall 002 | Outfall002_20231221_Grab | 12/21/2023 / 0715 | WM | 1 L Glass Amber | 2 | HCl | 15 | No | X | | | | |
| | | | WM | 40 mL VOA | 3 | HCl | 20 | No | | X | | | |
| | | | WM | 1 L Poly | 1 | None | 70 | No | | | X | | |
| | | | WM | 500 mL Poly | 1 | None | 75 | No | | | X | | |
| | Outfall002_20231221_Grab_Extra | 12/21/2023 / 0715 | WM | 1 L Glass Amber | 2 | HCl | 15 | No | H | | | | Hold |
| | | | WM | 40 mL VOA | 3 | HCl | 20 | No | | H | | H | Hold |
| Trip Blank | TB-20231221 | 12/21/2023 / 0715 | WQ | 40 mL VOA | 2 | HCl | 20 | No | | X | | | |



570-165636 Chain of Custody

Legend: R=Routine, Q=Quarterly, S=Semi-Annual

| | | |
|--|---|--|
| Relinquished By: <u>[Signature]</u> Date/Time: <u>12-21-23 / 1310</u> Company: <u>H.A.</u> | Received By: <u>[Signature]</u> - EC Date/Time: <u>12/21/23 1310</u> | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <u>X</u> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <u>[Signature]</u> EC Date/Time: <u>12/21/23 1310</u> Company: _____ | Received By: <u>[Signature]</u> Date/Time: <u>12/21/23 1710</u> | Sample Integrity: (Check) Intact: _____ On loc: _____ |
| Relinquished By: _____ Date/Time: _____ Company: _____ | Received By: _____ Date/Time: _____ | Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <u>X</u> |

1.8/2.2 sc14

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165636-1

Login Number: 165636

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|-------------------------------------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | False | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/30/2024 1:56:39 PM Revision 2

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 002 - Comp

JOB NUMBER

570-165901-1

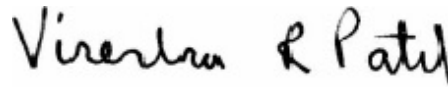
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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1/30/2024 1:56:39 PM
Revision 2

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Qualifiers

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| BA | Relative percent difference out of control |

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| PI | Primary and confirm results varied by > than 40% RPD |

HPLC/IC

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| BU | Sample was prepped beyond the specified holding time |
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |

General Chemistry

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

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Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Job ID: 570-165901-1

Eurofins Calscience

CASE NARRATIVE

Client: Haley & Aldrich, Inc.

Project: Boeing NPDES SSFL - Outfall 002 - Comp

Report Number: 570-165901-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

REVISION

The report being provided is a revision of the original report sent on 1/14/2024. The report (revision 1) is being revised due to: The clients office requested EPA 624.1 to be removed from the analytical data files. Please see COC section for the report for a copy of the email for details.

RECEIPT

The samples were received on 12/22/2023 at 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6°C, 2.2°C and 2.4°C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2 degrees Celsius of the required temperature or method specified range. For samples with a specified temperature of 4 degrees Celsius, samples with a temperature ranging from just above freezing temperature of water to 6 degrees Celsius shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

SEMI-VOLATILE ORGANIC COMPOUNDS (GC-MS SIM)

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for Semi-Volatile Organic Compounds in accordance with EPA Method 625.1 SIM. The samples were prepared on 12/29/2023 and analyzed on 01/09/2024.

N-Nitrosodimethylamine exceeded the RPD limit for LCSD 570-397007/3-A. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ORGANOCHLORINE PCB (GC)

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for organochlorine PCBs in accordance with EPA Method 608.3_PCB. The samples were prepared on 12/29/2023 and analyzed on 01/03/2024.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ORGANOCHLORINE PESTICIDES

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for organochlorine pesticides in accordance with EPA 608.3 Pest_LL. The samples were prepared on 12/29/2023 and analyzed on 01/08/2024.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Job ID: 570-165901-1 (Continued)

Eurofins Calscience

PERCHLORATE (IC)

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for perchlorate (IC) in accordance with EPA Method 314.0. The samples were analyzed on 01/11/2024.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP)

Sample Outfall002_20231222_Comp_F (570-165901-3) was analyzed for Dissolved Metals (ICP) in accordance with EPA Method 200.7. The samples were analyzed on 01/05/2024.

Method Filtration: The following sample was not filtered within 15 minutes of sample collection as required by the method: Outfall002_20231222_Comp_F (570-165901-3). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Calcium and Magnesium failed the recovery criteria high for the MS of sample 570-165650-1 in batch 570-398686.

Calcium and Magnesium failed the recovery criteria high for the MSD of sample 570-165650-1 in batch 570-398686.

The associated laboratory control sample (LCS) was within acceptance limits. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared and analyzed on 12/28/2023.

Calcium failed the recovery criteria low for the MS of sample 570-166155-1 in batch 570-396993.

Calcium failed the recovery criteria low for the MSD of sample 570-166155-1 in batch 570-396993.

The associated laboratory control sample (LCS) was within acceptance limits. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICPMS)

Sample Outfall002_20231222_Comp_F (570-165901-3) was analyzed for dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were analyzed on 01/04/2024.

Method Filtration: The following samples were not filtered within 15 minutes of sample collection as required by the method: Outfall002_20231222_Comp_F (570-165901-3), Outfall002_20231222_Comp_F (570-165901-3[MS]) and Outfall002_20231222_Comp_F (570-165901-3[MSD]). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 12/28/2023 and analyzed on 12/29/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED MERCURY (CVAA)

Sample Outfall002_20231222_Comp_F (570-165901-3) was analyzed for dissolved mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared on 01/09/2024 and analyzed on 01/10/2024.

Method Filtration: The following sample was not filtered within 15 minutes of sample collection as required by the method: Outfall002_20231222_Comp_F (570-165901-3). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY (CVAA)

Eurofins Calscience

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Job ID: 570-165901-1 (Continued)

Eurofins Calscience

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared on 01/09/2024 and analyzed on 01/10/2024.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED HARDNESS

Sample Outfall002_20231222_Comp_F (570-165901-3) was analyzed for dissolved hardness in accordance with SM 2340B. The samples were analyzed on 01/06/2024.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE HARDNESS

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for total recoverable hardness in accordance with SM 2340B. The samples were analyzed on 12/29/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 12/28/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 12/27/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS (IC)

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for Chloride and Sulfate in accordance with EPA Method 300.0. The samples were analyzed on 12/23/2023.

Sample Outfall002_20231222_Comp (570-165901-1)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS (IC)

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for Nitrite as N and Nitrate as N in accordance with EPA Method 300.0. The samples were analyzed on 12/23/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for ammonia in accordance with EPA Method 350.1. The samples were prepared and analyzed on 01/05/2024.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

MBAS

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for MBAS in accordance with SM 5540C. The samples were prepared and analyzed on 12/23/2023.

Sample result concentrations for methylene blue active substances (MBAS) are calculated as LAS, mol. wt. 320.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL CYANIDE

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for Total Cyanide in accordance with Method Kelada_01. The samples were analyzed on 01/04/2024.

Eurofins Calscience

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Job ID: 570-165901-1 (Continued)

Eurofins Calscience

Cyanide, Total failed the recovery criteria low for the MS of sample 570-165909-1 in batch 570-398571.

Cyanide, Total failed the recovery criteria low for the MSD of sample 570-165909-1 in batch 570-398571. Cyanide, Total exceeded the RPD limit.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 570-398571 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITROGEN, NITRATE-NITRITE

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for Nitrogen, Nitrate-Nitrite in accordance with NO₂NO₃ Calc. The samples were analyzed on 12/23/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TURBIDITY

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for turbidity in accordance with SM 2130B. The samples were analyzed on 12/23/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

BIOCHEMICAL OXYGEN DEMAND

Sample Outfall002_20231222_Comp (570-165901-1) was analyzed for biochemical oxygen demand in accordance with SM 5210B. The samples were prepared on 12/23/2023 and analyzed on 12/28/2023.

The correction factor for the Seeded Control Blank (SCB) for batch 570-396884 was outside the method range of 0.6 to 1.0 mg/L. Thus, there is added uncertainty for the associated sample results.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method 608 PEST/PCB: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-397759. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 608_PEST/PCB: A portion of the following sample was used for analysis, rather than testing the entire sample amount in the original container, due to the sample was prepared using an exact volume as opposed to the volume received: Outfall002_20231222_Comp (570-165901-1). As such, the required solvent rinse of the original container could not be performed.

Method 625_SIM: preparation batch 570-397007. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Eurofins Calscience

Detection Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-------------------------------|--------|-----------|------|-------|------|---------|---|-------------|-------------------|
| Chloride | 31 | | 1.0 | 0.36 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.063 | J,DX | 0.10 | 0.020 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate - DL | 170 | | 10 | 1.8 | mg/L | 10 | | 300.0 | Total/NA |
| Nitrate Nitrite as N | 0.063 | J,DX | 0.10 | 0.020 | mg/L | 1 | | NO2NO3 Calc | Total/NA |
| Copper | 3.0 | | 2.0 | 0.32 | ug/L | 1 | | 200.8 | Total Recoverable |
| Lead | 1.8 | | 1.0 | 0.12 | ug/L | 1 | | 200.8 | Total Recoverable |
| Selenium | 0.53 | J,DX | 2.0 | 0.52 | ug/L | 1 | | 200.8 | Total Recoverable |
| Zinc | 13 | J,DX | 20 | 2.8 | ug/L | 1 | | 200.8 | Total Recoverable |
| Hardness as calcium carbonate | 270 | | 7.1 | 0.50 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Turbidity | 130 | | 0.05 | 0.05 | NTU | 1 | | SM 2130B | Total/NA |
| Total Dissolved Solids | 530 | | 10 | 8.7 | mg/L | 1 | | SM 2540C | Total/NA |
| Total Suspended Solids | 58 | | 2.9 | 2.3 | mg/L | 1 | | SM 2540D | Total/NA |
| Biochemical Oxygen Demand | 3.2 | | 2.0 | 1.0 | mg/L | 1 | | SM 5210B | Total/NA |
| MBAS | 0.073 | J,DX | 0.20 | 0.050 | mg/L | 1 | | SM 5540C | Total/NA |

Client Sample ID: Outfall002_20231222_Comp_F

Lab Sample ID: 570-165901-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-------------------------------|--------|-----------|-----|------|------|---------|---|----------|-----------|
| Cadmium | 0.13 | J,DX BU | 1.0 | 0.13 | ug/L | 1 | | 200.8 | Dissolved |
| Copper | 1.3 | J,DX BU | 2.0 | 0.32 | ug/L | 1 | | 200.8 | Dissolved |
| Lead | 0.18 | J,DX BU | 1.0 | 0.12 | ug/L | 1 | | 200.8 | Dissolved |
| Selenium | 0.81 | J,DX BU | 2.0 | 0.52 | ug/L | 1 | | 200.8 | Dissolved |
| Hardness as calcium carbonate | 240 | | 7.1 | 0.50 | mg/L | 1 | | SM 2340B | Dissolved |

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

Date Collected: 12/22/23 07:45

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| 2,4,6-Trichlorophenol | ND | | 1.2 | 0.17 | ug/L | | 12/29/23 14:23 | 01/09/24 18:47 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.24 | 0.14 | ug/L | | 12/29/23 14:23 | 01/09/24 18:47 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 6.1 | 4.4 | ug/L | | 12/29/23 14:23 | 01/09/24 18:47 | 1 |
| N-Nitrosodimethylamine | ND | BA | 0.24 | 0.23 | ug/L | | 12/29/23 14:23 | 01/09/24 18:47 | 1 |
| Pentachlorophenol | ND | | 1.2 | 1.0 | ug/L | | 12/29/23 14:23 | 01/09/24 18:47 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 48 | | 31 - 120 | 12/29/23 14:23 | 01/09/24 18:47 | 1 |
| Phenol-d6 (Surr) | 27 | | 10 - 120 | 12/29/23 14:23 | 01/09/24 18:47 | 1 |
| p-Terphenyl-d14 (Surr) | 72 | | 45 - 120 | 12/29/23 14:23 | 01/09/24 18:47 | 1 |
| 2,4,6-Tribromophenol | 66 | | 28 - 127 | 12/29/23 14:23 | 01/09/24 18:47 | 1 |
| 2-Fluorophenol | 35 | | 17 - 120 | 12/29/23 14:23 | 01/09/24 18:47 | 1 |
| Nitrobenzene-d5 | 50 | | 27 - 120 | 12/29/23 14:23 | 01/09/24 18:47 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA 608.3 - Organochlorine Pesticides in Water

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

Date Collected: 12/22/23 07:45

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| alpha-BHC | ND | | 0.0013 | 0.0012 | ug/L | | 12/29/23 07:01 | 01/08/24 08:34 | 1 |
| Chlordane | ND | | 0.033 | 0.026 | ug/L | | 12/29/23 07:01 | 01/08/24 08:34 | 1 |
| Dieldrin | ND | | 0.0033 | 0.0013 | ug/L | | 12/29/23 07:01 | 01/08/24 08:34 | 1 |
| 4,4'-DDT | ND | | 0.0033 | 0.0016 | ug/L | | 12/29/23 07:01 | 01/08/24 08:34 | 1 |
| 4,4'-DDD | ND | | 0.0067 | 0.0044 | ug/L | | 12/29/23 07:01 | 01/08/24 08:34 | 1 |
| 4,4'-DDE | ND | | 0.0033 | 0.0019 | ug/L | | 12/29/23 07:01 | 01/08/24 08:34 | 1 |
| Toxaphene | ND | | 0.067 | 0.054 | ug/L | | 12/29/23 07:01 | 01/08/24 08:34 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene | 23 | PI | 20 - 139 | 12/29/23 07:01 | 01/08/24 08:34 | 1 |
| DCB Decachlorobiphenyl (Surr) | 42 | | 20 - 154 | 12/29/23 07:01 | 01/08/24 08:34 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: Outfall002_20231222_Comp
Date Collected: 12/22/23 07:45
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|------------------|------------------|---------------|-------|------|---|-----------------|-----------------|----------------|
| Aroclor 1016 | ND | | 0.10 | 0.044 | ug/L | | 12/29/23 07:01 | 01/03/24 14:09 | 1 |
| Aroclor 1221 | ND | | 0.10 | 0.044 | ug/L | | 12/29/23 07:01 | 01/03/24 14:09 | 1 |
| Aroclor 1232 | ND | | 0.10 | 0.044 | ug/L | | 12/29/23 07:01 | 01/03/24 14:09 | 1 |
| Aroclor 1242 | ND | | 0.10 | 0.044 | ug/L | | 12/29/23 07:01 | 01/03/24 14:09 | 1 |
| Aroclor 1248 | ND | | 0.10 | 0.044 | ug/L | | 12/29/23 07:01 | 01/03/24 14:09 | 1 |
| Aroclor 1254 | ND | | 0.10 | 0.052 | ug/L | | 12/29/23 07:01 | 01/03/24 14:09 | 1 |
| Aroclor 1260 | ND | | 0.10 | 0.052 | ug/L | | 12/29/23 07:01 | 01/03/24 14:09 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| DCB Decachlorobiphenyl (Surr) | 84 | PI | 20 - 154 | | | | 12/29/23 07:01 | 01/03/24 14:09 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA 300.0 - Anions, Ion Chromatography

Client Sample ID: Outfall002_20231222_Comp

Date Collected: 12/22/23 07:45

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 31 | | 1.0 | 0.36 | mg/L | | | 12/23/23 08:27 | 1 |
| Nitrite as N | ND | | 0.10 | 0.043 | mg/L | | | 12/23/23 08:27 | 1 |
| Nitrate as N | 0.063 | J,DX | 0.10 | 0.020 | mg/L | | | 12/23/23 08:27 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

Date Collected: 12/22/23 07:45

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|----|-----|------|---|----------|----------------|---------|
| Sulfate | 170 | | 10 | 1.8 | mg/L | | | 12/23/23 10:58 | 10 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA 314.0 - Perchlorate (IC)

Client Sample ID: Outfall002_20231222_Comp

Date Collected: 12/22/23 07:45

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Perchlorate | ND | | 2.0 | 0.91 | ug/L | | | 01/11/24 20:08 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA NO2NO3 Calc - Nitrogen, Nitrate-Nitrite

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

Date Collected: 12/22/23 07:45

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Nitrate Nitrite as N | 0.063 | J,DX | 0.10 | 0.020 | mg/L | | | 12/23/23 08:27 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: Outfall002_20231222_Comp

Date Collected: 12/22/23 07:45

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | 12/28/23 07:02 | 12/29/23 12:32 | 1 |
| Copper | 3.0 | | 2.0 | 0.32 | ug/L | | 12/28/23 07:02 | 12/29/23 12:32 | 1 |
| Lead | 1.8 | | 1.0 | 0.12 | ug/L | | 12/28/23 07:02 | 12/29/23 12:32 | 1 |
| Selenium | 0.53 | J,DX | 2.0 | 0.52 | ug/L | | 12/28/23 07:02 | 12/29/23 12:32 | 1 |
| Zinc | 13 | J,DX | 20 | 2.8 | ug/L | | 12/28/23 07:02 | 12/29/23 12:32 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: Outfall002_20231222_Comp_F

Date Collected: 12/22/23 07:45

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-3

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Cadmium | 0.13 | J,DX BU | 1.0 | 0.13 | ug/L | | | 01/04/24 14:59 | 1 |
| Copper | 1.3 | J,DX BU | 2.0 | 0.32 | ug/L | | | 01/04/24 14:59 | 1 |
| Lead | 0.18 | J,DX BU | 1.0 | 0.12 | ug/L | | | 01/04/24 14:59 | 1 |
| Selenium | 0.81 | J,DX BU | 2.0 | 0.52 | ug/L | | | 01/04/24 14:59 | 1 |
| Zinc | ND | BU | 20 | 2.8 | ug/L | | | 01/04/24 14:59 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: Outfall002_20231222_Comp

Date Collected: 12/22/23 07:45

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/09/24 13:04 | 01/10/24 14:29 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: EPA 245.1 - Mercury (CVAA) - Dissolved

Client Sample ID: Outfall002_20231222_Comp_F
Date Collected: 12/22/23 07:45
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-3
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | BU | 0.20 | 0.12 | ug/L | | 01/09/24 15:21 | 01/10/24 12:50 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

Date Collected: 12/22/23 07:45

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Hardness as calcium carbonate | 270 | | 7.1 | 0.50 | mg/L | | | 12/29/23 17:04 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Dissolved

Client Sample ID: Outfall002_20231222_Comp_F

Lab Sample ID: 570-165901-3

Date Collected: 12/22/23 07:45

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Hardness as calcium carbonate | 240 | | 7.1 | 0.50 | mg/L | | | 01/06/24 17:05 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

General Chemistry

Client Sample ID: Outfall002_20231222_Comp

Date Collected: 12/22/23 07:45

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------------|-------------|-------|-------|------|---|----------------|----------------|---------|
| Ammonia (EPA 350.1) | ND | | 0.075 | 0.029 | mg/L | | 01/05/24 09:38 | 01/05/24 12:11 | 1 |
| Cyanide, Total (EPA Kelada 01) | ND | | 5.0 | 2.5 | ug/L | | | 01/04/24 14:57 | 1 |
| Turbidity (SM 2130B) | 130 | | 0.05 | 0.05 | NTU | | | 12/23/23 09:55 | 1 |
| Total Dissolved Solids (SM 2540C) | 530 | | 10 | 8.7 | mg/L | | | 12/28/23 12:15 | 1 |
| Total Suspended Solids (SM 2540D) | 58 | | 2.9 | 2.3 | mg/L | | | 12/27/23 11:45 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 3.2 | | 2.0 | 1.0 | mg/L | | 12/23/23 10:12 | 12/28/23 14:39 | 1 |
| MBAS (SM 5540C) | 0.073 | J,DX | 0.20 | 0.050 | mg/L | | 12/23/23 10:10 | 12/23/23 11:44 | 1 |

Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|---------------------|--------------------------|--|------------------|--------------------|-----------------|-----------------|-----------------|
| | | FBP (31-120) | PHL6 (10-120) | TPHd14 (45-120) | TBP (28-127) | 2FP (17-120) | NBZ (27-120) |
| 570-165901-1 | Outfall002_20231222_Comp | 48 | 27 | 72 | 66 | 35 | 50 |
| LCS 570-397007/2-A | Lab Control Sample | 52 | 30 | 76 | 76 | 46 | 50 |
| LCSD 570-397007/3-A | Lab Control Sample Dup | 50 | 23 | 55 | 70 | 36 | 47 |
| MB 570-397007/1-A | Method Blank | 60 | 23 | 74 | 75 | 39 | 61 |

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | |
|--------------------|--------------------------|--|------------------|
| | | TCX1 (20-139) | DCB1 (20-154) |
| 570-165901-1 | Outfall002_20231222_Comp | 23 PI | 42 |
| LCS 570-397759/2-A | Lab Control Sample | 28 | 37 |
| MB 570-397759/1-A | Method Blank | 27 | 33 |

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | |
|---------------------|------------------------|--|------------------|
| | | TCX2 (20-139) | DCB1 (20-154) |
| LCSD 570-397759/3-A | Lab Control Sample Dup | 27 | 34 |

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |
|---------------------|--------------------------|--|
| | | DCB1 (20-154) |
| 570-165901-1 | Outfall002_20231222_Comp | 84 PI |
| LCS 570-397759/4-A | Lab Control Sample | 39 |
| LCSD 570-397759/5-A | Lab Control Sample Dup | 45 |
| MB 570-397759/1-A | Method Blank | 48 |

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 570-397007/1-A

Matrix: Water

Analysis Batch: 398733

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 397007

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| 2,4,6-Trichlorophenol | ND | | 1.0 | 0.14 | ug/L | | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.20 | 0.12 | ug/L | | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 5.0 | 3.6 | ug/L | | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| N-Nitrosodimethylamine | ND | | 0.20 | 0.19 | ug/L | | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| Pentachlorophenol | ND | | 1.0 | 0.84 | ug/L | | 12/28/23 21:50 | 01/05/24 18:39 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 60 | | 31 - 120 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| Phenol-d6 (Surr) | 23 | | 10 - 120 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| p-Terphenyl-d14 (Surr) | 74 | | 45 - 120 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| 2,4,6-Tribromophenol | 75 | | 28 - 127 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| 2-Fluorophenol | 39 | | 17 - 120 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |
| Nitrobenzene-d5 | 61 | | 27 - 120 | 12/28/23 21:50 | 01/05/24 18:39 | 1 |

Lab Sample ID: LCS 570-397007/2-A

Matrix: Water

Analysis Batch: 399510

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 397007

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|-------------|
| 2,4,6-Trichlorophenol | 20.0 | 13.1 | | ug/L | | 66 | 52 - 129 |
| 2,4-Dinitrotoluene | 20.0 | 16.3 | | ug/L | | 82 | 48 - 127 |
| Bis(2-ethylhexyl) phthalate | 20.0 | 17.8 | | ug/L | | 89 | 29 - 137 |
| N-Nitrosodimethylamine | 20.0 | 13.3 | | ug/L | | 66 | 20 - 120 |
| Pentachlorophenol | 20.0 | 14.5 | | ug/L | | 72 | 38 - 152 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 52 | | 31 - 120 |
| Phenol-d6 (Surr) | 30 | | 10 - 120 |
| p-Terphenyl-d14 (Surr) | 76 | | 45 - 120 |
| 2,4,6-Tribromophenol | 76 | | 28 - 127 |
| 2-Fluorophenol | 46 | | 17 - 120 |
| Nitrobenzene-d5 | 50 | | 27 - 120 |

Lab Sample ID: LCSD 570-397007/3-A

Matrix: Water

Analysis Batch: 399510

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 397007

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| 2,4,6-Trichlorophenol | 20.0 | 12.0 | | ug/L | | 60 | 52 - 129 | 9 | 35 |
| 2,4-Dinitrotoluene | 20.0 | 14.6 | | ug/L | | 73 | 48 - 127 | 11 | 25 |
| Bis(2-ethylhexyl) phthalate | 20.0 | 14.8 | | ug/L | | 74 | 29 - 137 | 19 | 50 |
| N-Nitrosodimethylamine | 20.0 | 8.84 | BA | ug/L | | 44 | 20 - 120 | 40 | 21 |
| Pentachlorophenol | 20.0 | 13.0 | | ug/L | | 65 | 38 - 152 | 11 | 52 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|-------------------------|----------------|----------------|----------|
| 2-Fluorobiphenyl (Surr) | 50 | | 31 - 120 |
| Phenol-d6 (Surr) | 23 | | 10 - 120 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCSD 570-397007/3-A
Matrix: Water
Analysis Batch: 399510

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 397007

| Surrogate | LCSD LCSD | | Limits |
|------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| p-Terphenyl-d14 (Surr) | 55 | | 45 - 120 |
| 2,4,6-Tribromophenol | 70 | | 28 - 127 |
| 2-Fluorophenol | 36 | | 17 - 120 |
| Nitrobenzene-d5 | 47 | | 27 - 120 |

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-397759/1-A
Matrix: Water
Analysis Batch: 399037

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 397759

| Analyte | MB MB | | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| alpha-BHC | ND | | 0.0013 | 0.0012 | ug/L | | 12/29/23 07:01 | 01/07/24 23:59 | 1 |
| Chlordane | ND | | 0.033 | 0.026 | ug/L | | 12/29/23 07:01 | 01/07/24 23:59 | 1 |
| Dieldrin | ND | | 0.0033 | 0.0013 | ug/L | | 12/29/23 07:01 | 01/07/24 23:59 | 1 |
| 4,4'-DDT | ND | | 0.0033 | 0.0016 | ug/L | | 12/29/23 07:01 | 01/07/24 23:59 | 1 |
| 4,4'-DDD | ND | | 0.0067 | 0.0044 | ug/L | | 12/29/23 07:01 | 01/07/24 23:59 | 1 |
| 4,4'-DDE | ND | | 0.0033 | 0.0019 | ug/L | | 12/29/23 07:01 | 01/07/24 23:59 | 1 |
| Toxaphene | ND | | 0.067 | 0.054 | ug/L | | 12/29/23 07:01 | 01/07/24 23:59 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| Tetrachloro-m-xylene | 27 | | 20 - 139 | 12/29/23 07:01 | 01/07/24 23:59 | 1 |
| DCB Decachlorobiphenyl (Surr) | 33 | | 20 - 154 | 12/29/23 07:01 | 01/07/24 23:59 | 1 |

Lab Sample ID: LCS 570-397759/2-A
Matrix: Water
Analysis Batch: 399037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 397759

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | Limits |
|-----------|-------------|---------|-----------|------|---|------|----------|
| | | Result | Qualifier | | | | |
| alpha-BHC | 0.0333 | 0.0155 | | ug/L | | 47 | 37 - 140 |
| Dieldrin | 0.0333 | 0.0177 | | ug/L | | 53 | 36 - 146 |
| 4,4'-DDT | 0.0333 | 0.0165 | | ug/L | | 50 | 25 - 160 |
| 4,4'-DDD | 0.0333 | 0.0184 | | ug/L | | 55 | 31 - 141 |
| 4,4'-DDE | 0.0333 | 0.0153 | | ug/L | | 46 | 30 - 145 |

| Surrogate | LCS LCS | | Limits |
|-------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| Tetrachloro-m-xylene | 28 | | 20 - 139 |
| DCB Decachlorobiphenyl (Surr) | 37 | | 20 - 154 |

Lab Sample ID: LCSD 570-397759/3-A
Matrix: Water
Analysis Batch: 399037

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 397759

| Analyte | Spike Added | LCSD LCSD | | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|-------------|-----------|-----------|------|---|------|-------------|-----|-----------|
| | | Result | Qualifier | | | | | | |
| alpha-BHC | 0.0333 | 0.0161 | | ug/L | | 48 | 37 - 140 | 4 | 36 |
| Dieldrin | 0.0333 | 0.0178 | | ug/L | | 53 | 36 - 146 | 0 | 49 |
| 4,4'-DDT | 0.0333 | 0.0165 | | ug/L | | 50 | 25 - 160 | 0 | 42 |
| 4,4'-DDD | 0.0333 | 0.0183 | | ug/L | | 55 | 31 - 141 | 1 | 39 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 570-397759/3-A
Matrix: Water
Analysis Batch: 399037

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 397759

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------------------------|------------------|-----------------------|----------------|------|---|------|-------------|-----|-----------|
| 4,4'-DDE | 0.0333 | 0.0166 | | ug/L | | 50 | 30 - 145 | 8 | 35 |
| Surrogate | | | | | | | | | |
| | %Recovery | LCSD Qualifier | Limits | | | | | | |
| Tetrachloro-m-xylene | 27 | | 20 - 139 | | | | | | |
| DCB Decachlorobiphenyl (Surr) | 34 | | 20 - 154 | | | | | | |

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-397759/1-A
Matrix: Water
Analysis Batch: 397945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 397759

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|------------------|---------------------|---------------|-------|------|---|-----------------|-----------------|----------------|
| Aroclor 1016 | ND | | 0.10 | 0.044 | ug/L | | 12/29/23 07:01 | 01/03/24 13:32 | 1 |
| Aroclor 1221 | ND | | 0.10 | 0.044 | ug/L | | 12/29/23 07:01 | 01/03/24 13:32 | 1 |
| Aroclor 1232 | ND | | 0.10 | 0.044 | ug/L | | 12/29/23 07:01 | 01/03/24 13:32 | 1 |
| Aroclor 1242 | ND | | 0.10 | 0.044 | ug/L | | 12/29/23 07:01 | 01/03/24 13:32 | 1 |
| Aroclor 1248 | ND | | 0.10 | 0.044 | ug/L | | 12/29/23 07:01 | 01/03/24 13:32 | 1 |
| Aroclor 1254 | ND | | 0.10 | 0.052 | ug/L | | 12/29/23 07:01 | 01/03/24 13:32 | 1 |
| Aroclor 1260 | ND | | 0.10 | 0.052 | ug/L | | 12/29/23 07:01 | 01/03/24 13:32 | 1 |
| Surrogate | | | | | | | | | |
| | %Recovery | MB Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| DCB Decachlorobiphenyl (Surr) | 48 | | 20 - 154 | | | | 12/29/23 07:01 | 01/03/24 13:32 | 1 |

Lab Sample ID: LCS 570-397759/4-A
Matrix: Water
Analysis Batch: 397945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 397759

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------------------|------------------|----------------------|---------------|------|---|------|-------------|
| Aroclor 1016 | 0.133 | 0.0706 | J,DX | ug/L | | 53 | 50 - 140 |
| Aroclor 1260 | 0.133 | 0.114 | PI | ug/L | | 85 | 8 - 140 |
| Surrogate | | | | | | | |
| | %Recovery | LCS Qualifier | Limits | | | | |
| DCB Decachlorobiphenyl (Surr) | 39 | | 20 - 154 | | | | |

Lab Sample ID: LCSD 570-397759/5-A
Matrix: Water
Analysis Batch: 397945

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 397759

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------------------------|------------------|-----------------------|----------------|------|---|------|-------------|-----|-----------|
| Aroclor 1016 | 0.133 | 0.0833 | J,DX | ug/L | | 62 | 50 - 140 | 16 | 36 |
| Aroclor 1260 | 0.133 | 0.0974 | J,DX PI | ug/L | | 73 | 8 - 140 | 16 | 38 |
| Surrogate | | | | | | | | | |
| | %Recovery | LCSD Qualifier | Limits | | | | | | |
| DCB Decachlorobiphenyl (Surr) | 45 | | 20 - 154 | | | | | | |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-395973/5
Matrix: Water
Analysis Batch: 395973

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Nitrite as N | ND | | 0.10 | 0.043 | mg/L | | | 12/23/23 07:02 | 1 |
| Nitrate as N | ND | | 0.10 | 0.020 | mg/L | | | 12/23/23 07:02 | 1 |

Lab Sample ID: LCS 570-395973/6
Matrix: Water
Analysis Batch: 395973

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------|-------------|------------|---------------|------|---|------|-------------|
| Nitrite as N | 2.50 | 2.60 | | mg/L | | 104 | 90 - 110 |
| Nitrate as N | 5.00 | 4.88 | | mg/L | | 98 | 90 - 110 |

Lab Sample ID: LCSD 570-395973/7
Matrix: Water
Analysis Batch: 395973

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Nitrite as N | 2.50 | 2.59 | | mg/L | | 104 | 90 - 110 | 0 | 15 |
| Nitrate as N | 5.00 | 4.88 | | mg/L | | 98 | 90 - 110 | 0 | 15 |

Lab Sample ID: MB 570-395974/5
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Chloride | ND | | 1.0 | 0.36 | mg/L | | | 12/23/23 07:02 | 1 |
| Sulfate | ND | | 1.0 | 0.18 | mg/L | | | 12/23/23 07:02 | 1 |

Lab Sample ID: LCS 570-395974/6
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 50.0 | 48.0 | | mg/L | | 96 | 90 - 110 |
| Sulfate | 50.0 | 48.5 | | mg/L | | 97 | 90 - 110 |

Lab Sample ID: LCSD 570-395974/7
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Chloride | 50.0 | 48.0 | | mg/L | | 96 | 90 - 110 | 0 | 15 |
| Sulfate | 50.0 | 48.4 | | mg/L | | 97 | 90 - 110 | 0 | 15 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 570-400300/7
Matrix: Water
Analysis Batch: 400300

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Perchlorate | ND | | 2.0 | 0.91 | ug/L | | | 01/11/24 16:43 | 1 |

Lab Sample ID: LCS 570-400300/8
Matrix: Water
Analysis Batch: 400300

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------|-------------|------------|---------------|------|---|------|-------------|
| Perchlorate | 25.0 | 24.1 | | ug/L | | 96 | 85 - 115 |

Lab Sample ID: LCSD 570-400300/9
Matrix: Water
Analysis Batch: 400300

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Perchlorate | 25.0 | 24.6 | | ug/L | | 98 | 85 - 115 | 2 | 15 |

Lab Sample ID: MRL 570-400300/1004
Matrix: Water
Analysis Batch: 400300

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------|-------------|------------|---------------|------|---|------|-------------|
| Perchlorate | 2.00 | 2.19 | | ug/L | | 110 | 75 - 125 |

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-396612/1-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |
| Copper | ND | | 2.0 | 0.32 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |
| Zinc | ND | | 20 | 2.8 | ug/L | | 12/28/23 07:02 | 12/29/23 12:26 | 1 |

Lab Sample ID: LCS 570-396612/2-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Cadmium | 80.0 | 79.0 | | ug/L | | 99 | 85 - 115 |
| Copper | 80.0 | 78.9 | | ug/L | | 99 | 85 - 115 |
| Lead | 80.0 | 78.6 | | ug/L | | 98 | 85 - 115 |
| Selenium | 80.0 | 82.7 | | ug/L | | 103 | 85 - 115 |
| Zinc | 80.0 | 76.5 | | ug/L | | 96 | 85 - 115 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 570-396612/3-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec | | RPD | Limit |
|----------|-------------|-------------|----------------|------|---|------|----------|-----|-----|-------|
| | | | | | | | Limits | RPD | | |
| Cadmium | 80.0 | 79.0 | | ug/L | | 99 | 85 - 115 | 0 | 20 | |
| Copper | 80.0 | 79.1 | | ug/L | | 99 | 85 - 115 | 0 | 20 | |
| Lead | 80.0 | 78.8 | | ug/L | | 99 | 85 - 115 | 0 | 20 | |
| Selenium | 80.0 | 83.3 | | ug/L | | 104 | 85 - 115 | 1 | 20 | |
| Zinc | 80.0 | 76.2 | | ug/L | | 95 | 85 - 115 | 0 | 20 | |

Lab Sample ID: 570-165901-1 MS
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Outfall002_20231222_Comp
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec | | Limit |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|----------|-----|-------|
| | | | | | | | | | Limits | RPD | |
| Cadmium | ND | | 80.0 | 81.5 | | ug/L | | 102 | 80 - 120 | | |
| Copper | 3.0 | | 80.0 | 83.7 | | ug/L | | 101 | 80 - 120 | | |
| Lead | 1.8 | | 80.0 | 82.2 | | ug/L | | 100 | 80 - 120 | | |
| Selenium | 0.53 | J,DX | 80.0 | 81.8 | | ug/L | | 102 | 80 - 120 | | |
| Zinc | 13 | J,DX | 80.0 | 89.4 | | ug/L | | 96 | 80 - 120 | | |

Lab Sample ID: 570-165901-1 MSD
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Outfall002_20231222_Comp
Prep Type: Total Recoverable
Prep Batch: 396612

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec | | Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|----------|-----|-------|
| | | | | | | | | | Limits | RPD | |
| Cadmium | ND | | 80.0 | 78.4 | | ug/L | | 98 | 80 - 120 | 4 | 20 |
| Copper | 3.0 | | 80.0 | 79.5 | | ug/L | | 96 | 80 - 120 | 5 | 20 |
| Lead | 1.8 | | 80.0 | 78.6 | | ug/L | | 96 | 80 - 120 | 4 | 20 |
| Selenium | 0.53 | J,DX | 80.0 | 78.2 | | ug/L | | 97 | 80 - 120 | 4 | 20 |
| Zinc | 13 | J,DX | 80.0 | 84.8 | | ug/L | | 90 | 80 - 120 | 5 | 20 |

Lab Sample ID: MB 570-397913/1-A
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Method Blank
Prep Type: Dissolved

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------|----------|-------|---------|
| | | | | | | | | Start | End | |
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | | 01/04/24 | 14:52 | 1 |
| Copper | ND | | 2.0 | 0.32 | ug/L | | | 01/04/24 | 14:52 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | | 01/04/24 | 14:52 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | | 01/04/24 | 14:52 | 1 |
| Zinc | ND | | 20 | 2.8 | ug/L | | | 01/04/24 | 14:52 | 1 |

Lab Sample ID: LCS 570-397913/2-A
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec | | Limit |
|----------|-------------|------------|---------------|------|---|------|----------|-----|-------|
| | | | | | | | Limits | RPD | |
| Cadmium | 80.0 | 78.5 | | ug/L | | 98 | 85 - 115 | | |
| Copper | 80.0 | 80.6 | | ug/L | | 101 | 85 - 115 | | |
| Lead | 80.0 | 79.7 | | ug/L | | 100 | 85 - 115 | | |
| Selenium | 80.0 | 78.6 | | ug/L | | 98 | 85 - 115 | | |
| Zinc | 80.0 | 74.6 | | ug/L | | 93 | 85 - 115 | | |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 570-397913/3-A
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Cadmium | 80.0 | 78.5 | | ug/L | | 98 | 85 - 115 | 0 | 20 |
| Copper | 80.0 | 79.9 | | ug/L | | 100 | 85 - 115 | 1 | 20 |
| Lead | 80.0 | 78.2 | | ug/L | | 98 | 85 - 115 | 2 | 20 |
| Selenium | 80.0 | 77.6 | | ug/L | | 97 | 85 - 115 | 1 | 20 |
| Zinc | 80.0 | 74.7 | | ug/L | | 93 | 85 - 115 | 0 | 20 |

Lab Sample ID: 570-165901-3 MS
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Outfall002_20231222_Comp_F
Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|-----|-----------|
| Cadmium | 0.13 | J,DX BU | 80.0 | 77.9 | BU | ug/L | | 97 | 80 - 120 | | |
| Copper | 1.3 | J,DX BU | 80.0 | 81.0 | BU | ug/L | | 100 | 80 - 120 | | |
| Lead | 0.18 | J,DX BU | 80.0 | 78.2 | BU | ug/L | | 98 | 80 - 120 | | |
| Selenium | 0.81 | J,DX BU | 80.0 | 80.5 | BU | ug/L | | 100 | 80 - 120 | | |
| Zinc | ND | BU | 80.0 | 73.5 | BU | ug/L | | 92 | 80 - 120 | | |

Lab Sample ID: 570-165901-3 MSD
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Outfall002_20231222_Comp_F
Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Cadmium | 0.13 | J,DX BU | 80.0 | 75.4 | BU | ug/L | | 94 | 80 - 120 | 3 | 20 |
| Copper | 1.3 | J,DX BU | 80.0 | 78.5 | BU | ug/L | | 96 | 80 - 120 | 3 | 20 |
| Lead | 0.18 | J,DX BU | 80.0 | 77.5 | BU | ug/L | | 97 | 80 - 120 | 1 | 20 |
| Selenium | 0.81 | J,DX BU | 80.0 | 80.2 | BU | ug/L | | 99 | 80 - 120 | 0 | 20 |
| Zinc | ND | BU | 80.0 | 73.0 | BU | ug/L | | 91 | 80 - 120 | 1 | 20 |

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 570-399598/1-A
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 399598

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/09/24 13:04 | 01/10/24 14:17 | 1 |

Lab Sample ID: LCS 570-399598/2-A
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 399598

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Mercury | 8.00 | 7.35 | | ug/L | | 92 | 85 - 115 | | |

Lab Sample ID: LCSD 570-399598/3-A
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 399598

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Mercury | 8.00 | 7.53 | | ug/L | | 94 | 85 - 115 | 2 | 10 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: 570-165901-1 MS
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Outfall002_20231222_Comp
Prep Type: Total/NA
Prep Batch: 399598

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Mercury | ND | | 8.00 | 7.09 | | ug/L | | 89 | 85 - 115 |

Lab Sample ID: 570-165901-1 MSD
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Outfall002_20231222_Comp
Prep Type: Total/NA
Prep Batch: 399598

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-------|
| Mercury | ND | | 8.00 | 7.43 | | ug/L | | 93 | 85 - 115 | 5 | 10 |

Lab Sample ID: MB 570-399609/1-C
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 399662

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/09/24 16:35 | 01/10/24 12:44 | 1 |

Lab Sample ID: LCS 570-399609/2-C
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 399662

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Mercury | 8.00 | 8.00 | | ug/L | | 100 | 85 - 115 |

Lab Sample ID: LCSD 570-399609/3-C
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 399662

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-------|
| Mercury | 8.00 | 8.08 | | ug/L | | 101 | 85 - 115 | 1 | 10 |

Lab Sample ID: 570-165901-3 MS
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Outfall002_20231222_Comp_F
Prep Type: Dissolved
Prep Batch: 399662

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Mercury | ND | BU | 8.00 | 7.96 | BU | ug/L | | 100 | 85 - 115 |

Lab Sample ID: 570-165901-3 MSD
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Outfall002_20231222_Comp_F
Prep Type: Dissolved
Prep Batch: 399662

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-------|
| Mercury | ND | BU | 8.00 | 8.06 | BU | ug/L | | 101 | 85 - 115 | 1 | 10 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 570-398793/5-A
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-------|-------|------|---|----------------|----------------|---------|
| Ammonia | ND | | 0.075 | 0.029 | mg/L | | 01/05/24 09:38 | 01/05/24 12:01 | 1 |

Lab Sample ID: LCS 570-398793/6-A
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Ammonia | 0.500 | 0.476 | | mg/L | | 95 | 90 - 110 |

Lab Sample ID: LCSD 570-398793/7-A
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Ammonia | 0.500 | 0.467 | | mg/L | | 93 | 90 - 110 | 2 | 20 |

Method: Kelada 01 - Cyanide, Total, Acid Dissociable and Thiocyanate

Lab Sample ID: MB 570-398571/11
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Cyanide, Total | ND | | 5.0 | 2.5 | ug/L | | | 01/04/24 14:13 | 1 |

Lab Sample ID: LCS 570-398571/12
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|------------|---------------|------|---|------|-------------|
| Cyanide, Total | 250 | 245 | | ug/L | | 98 | 90 - 110 |

Lab Sample ID: LCSD 570-398571/13
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Cyanide, Total | 250 | 246 | | ug/L | | 98 | 90 - 110 | 0 | 20 |

Lab Sample ID: MRL 570-398571/10
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|------------|---------------|------|---|------|-------------|
| Cyanide, Total | 5.00 | 5.48 | | ug/L | | 110 | 50 - 150 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: SM 2130B - Turbidity

Lab Sample ID: LCSSRM 570-396020/1
 Matrix: Water
 Analysis Batch: 396020

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|---------------|------------------|------|---|------|--------------|
| Turbidity | 800 | 800 | | NTU | | 99.6 | 95.0 - 105.0 |

Lab Sample ID: LCSSRM 570-396020/2
 Matrix: Water
 Analysis Batch: 396020

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|---------------|------------------|------|---|-------|--------------|
| Turbidity | 20.0 | 20 | | NTU | | 100.5 | 95.0 - 105.0 |

Lab Sample ID: LCSSRM 570-396020/3
 Matrix: Water
 Analysis Batch: 396020

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|---------------|------------------|------|---|------|-------------|
| Turbidity | 0.0200 | ND | | NTU | | 50.0 | 0.0 - 200.0 |

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-396762/1
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|----|-----|------|---|----------|----------------|---------|
| Total Dissolved Solids | ND | | 10 | 8.7 | mg/L | | | 12/28/23 12:15 | 1 |

Lab Sample ID: LCS 570-396762/2
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Dissolved Solids | 1000 | 1040 | | mg/L | | 104 | 84 - 108 |

Lab Sample ID: LCSD 570-396762/3
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Total Dissolved Solids | 1000 | 1060 | | mg/L | | 106 | 84 - 108 | 1 | 10 |

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-396331/1
 Matrix: Water
 Analysis Batch: 396331

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Suspended Solids | ND | | 1.0 | 0.80 | mg/L | | | 12/27/23 11:45 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 570-396331/2
 Matrix: Water
 Analysis Batch: 396331

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Suspended Solids | 100 | 97.0 | | mg/L | | 97 | 77 - 116 |

Lab Sample ID: LCSD 570-396331/3
 Matrix: Water
 Analysis Batch: 396331

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Total Suspended Solids | 100 | 99.0 | | mg/L | | 99 | 77 - 116 | 2 | 10 |

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 570-396027/1-A
 Matrix: Water
 Analysis Batch: 396884

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 396027

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|------------|---------------|-----|-----|------|---|----------------|----------------|---------|
| Biochemical Oxygen Demand | ND | | 2.0 | 1.0 | mg/L | | 12/23/23 10:12 | 12/28/23 13:32 | 1 |

Lab Sample ID: LCS 570-396027/3-A
 Matrix: Water
 Analysis Batch: 396884

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 396027

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------------|-------------|------------|---------------|------|---|------|--------------|
| Biochemical Oxygen Demand | 199 | 190 | | mg/L | | 95 | 84.6 - 115.4 |

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 570-396034/5-A
 Matrix: Water
 Analysis Batch: 396050

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 396034

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| MBAS | ND | | 0.20 | 0.050 | mg/L | | 12/23/23 10:10 | 12/23/23 11:39 | 1 |

Lab Sample ID: LCS 570-396034/6-A
 Matrix: Water
 Analysis Batch: 396050

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 396034

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| MBAS | 0.500 | 0.560 | | mg/L | | 112 | 83 - 122 |

Lab Sample ID: LCSD 570-396034/7-A
 Matrix: Water
 Analysis Batch: 396050

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 396034

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| MBAS | 0.500 | 0.571 | | mg/L | | 114 | 83 - 122 | 2 | 10 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Method: SM 5540C - Methylene Blue Active Substances (MBAS) (Continued)

Lab Sample ID: 570-165901-1 MS
Matrix: Water
Analysis Batch: 396050

Client Sample ID: Outfall002_20231222_Comp
Prep Type: Total/NA
Prep Batch: 396034

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|----------|
| MBAS | 0.073 | J,DX | 0.500 | 0.570 | | mg/L | | 99 | 64 - 141 |

Lab Sample ID: 570-165901-1 MSD
Matrix: Water
Analysis Batch: 396050

Client Sample ID: Outfall002_20231222_Comp
Prep Type: Total/NA
Prep Batch: 396034

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|----------|-----|-------|
| MBAS | 0.073 | J,DX | 0.500 | 0.567 | | mg/L | | 99 | 64 - 141 | 1 | 10 |



QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

GC/MS Semi VOA

Prep Batch: 397007

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 625 | |
| MB 570-397007/1-A | Method Blank | Total/NA | Water | 625 | |
| LCS 570-397007/2-A | Lab Control Sample | Total/NA | Water | 625 | |
| LCSD 570-397007/3-A | Lab Control Sample Dup | Total/NA | Water | 625 | |

Analysis Batch: 398733

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|-----------|------------|
| MB 570-397007/1-A | Method Blank | Total/NA | Water | 625.1 SIM | 397007 |

Analysis Batch: 399510

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 625.1 SIM | 397007 |
| LCS 570-397007/2-A | Lab Control Sample | Total/NA | Water | 625.1 SIM | 397007 |
| LCSD 570-397007/3-A | Lab Control Sample Dup | Total/NA | Water | 625.1 SIM | 397007 |

GC Semi VOA

Prep Batch: 397759

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 608 | |
| MB 570-397759/1-A | Method Blank | Total/NA | Water | 608 | |
| LCS 570-397759/2-A | Lab Control Sample | Total/NA | Water | 608 | |
| LCS 570-397759/4-A | Lab Control Sample | Total/NA | Water | 608 | |
| LCSD 570-397759/3-A | Lab Control Sample Dup | Total/NA | Water | 608 | |
| LCSD 570-397759/5-A | Lab Control Sample Dup | Total/NA | Water | 608 | |

Analysis Batch: 397945

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 608.3 | 397759 |
| MB 570-397759/1-A | Method Blank | Total/NA | Water | 608.3 | 397759 |
| LCS 570-397759/4-A | Lab Control Sample | Total/NA | Water | 608.3 | 397759 |
| LCSD 570-397759/5-A | Lab Control Sample Dup | Total/NA | Water | 608.3 | 397759 |

Analysis Batch: 399037

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| MB 570-397759/1-A | Method Blank | Total/NA | Water | 608.3 | 397759 |
| LCS 570-397759/2-A | Lab Control Sample | Total/NA | Water | 608.3 | 397759 |
| LCSD 570-397759/3-A | Lab Control Sample Dup | Total/NA | Water | 608.3 | 397759 |

Analysis Batch: 399059

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 608.3 | 397759 |

HPLC/IC

Analysis Batch: 395973

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 300.0 | |
| MB 570-395973/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-395973/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 570-395973/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |

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QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

HPLC/IC

Analysis Batch: 395974

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 300.0 | |
| 570-165901-1 - DL | Outfall002_20231222_Comp | Total/NA | Water | 300.0 | |
| MB 570-395974/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-395974/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 570-395974/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |

Analysis Batch: 399041

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|-------------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | NO2NO3 Calc | |

Analysis Batch: 400300

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 314.0 | |
| MB 570-400300/7 | Method Blank | Total/NA | Water | 314.0 | |
| LCS 570-400300/8 | Lab Control Sample | Total/NA | Water | 314.0 | |
| LCSD 570-400300/9 | Lab Control Sample Dup | Total/NA | Water | 314.0 | |
| MRL 570-400300/1004 | Lab Control Sample | Total/NA | Water | 314.0 | |

Metals

Analysis Batch: 396163

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-------------------|--------|----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total Recoverable | Water | SM 2340B | |

Analysis Batch: 396164

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|----------------------------|-----------|--------|----------|------------|
| 570-165901-3 | Outfall002_20231222_Comp_F | Dissolved | Water | SM 2340B | |

Prep Batch: 396612

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-------------------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total Recoverable | Water | 200.8 | |
| MB 570-396612/1-A | Method Blank | Total Recoverable | Water | 200.8 | |
| LCS 570-396612/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 | |
| LCSD 570-396612/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 | |
| 570-165901-1 MS | Outfall002_20231222_Comp | Total Recoverable | Water | 200.8 | |
| 570-165901-1 MSD | Outfall002_20231222_Comp | Total Recoverable | Water | 200.8 | |

Analysis Batch: 397364

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-------------------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total Recoverable | Water | 200.8 | 396612 |
| MB 570-396612/1-A | Method Blank | Total Recoverable | Water | 200.8 | 396612 |
| LCS 570-396612/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 | 396612 |
| LCSD 570-396612/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 | 396612 |
| 570-165901-1 MS | Outfall002_20231222_Comp | Total Recoverable | Water | 200.8 | 396612 |
| 570-165901-1 MSD | Outfall002_20231222_Comp | Total Recoverable | Water | 200.8 | 396612 |

Filtration Batch: 397913

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|----------------------------|-----------|--------|------------|------------|
| 570-165901-3 | Outfall002_20231222_Comp_F | Dissolved | Water | Filtration | |
| MB 570-397913/1-A | Method Blank | Dissolved | Water | Filtration | |
| LCS 570-397913/2-A | Lab Control Sample | Dissolved | Water | Filtration | |

Eurofins Calscience

QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Metals (Continued)

Filtration Batch: 397913 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|------------|------------|
| LCSD 570-397913/3-A | Lab Control Sample Dup | Dissolved | Water | Filtration | |
| 570-165901-3 MS | Outfall002_20231222_Comp_F | Dissolved | Water | Filtration | |
| 570-165901-3 MSD | Outfall002_20231222_Comp_F | Dissolved | Water | Filtration | |

Analysis Batch: 398534

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165901-3 | Outfall002_20231222_Comp_F | Dissolved | Water | 200.8 | 397913 |
| MB 570-397913/1-A | Method Blank | Dissolved | Water | 200.8 | 397913 |
| LCS 570-397913/2-A | Lab Control Sample | Dissolved | Water | 200.8 | 397913 |
| LCSD 570-397913/3-A | Lab Control Sample Dup | Dissolved | Water | 200.8 | 397913 |
| 570-165901-3 MS | Outfall002_20231222_Comp_F | Dissolved | Water | 200.8 | 397913 |
| 570-165901-3 MSD | Outfall002_20231222_Comp_F | Dissolved | Water | 200.8 | 397913 |

Prep Batch: 399598

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 245.1 | |
| MB 570-399598/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 570-399598/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 570-399598/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 570-165901-1 MS | Outfall002_20231222_Comp | Total/NA | Water | 245.1 | |
| 570-165901-1 MSD | Outfall002_20231222_Comp | Total/NA | Water | 245.1 | |

Filtration Batch: 399609

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|------------|------------|
| 570-165901-3 | Outfall002_20231222_Comp_F | Dissolved | Water | Filtration | |
| MB 570-399609/1-C | Method Blank | Dissolved | Water | Filtration | |
| LCS 570-399609/2-C | Lab Control Sample | Dissolved | Water | Filtration | |
| LCSD 570-399609/3-C | Lab Control Sample Dup | Dissolved | Water | Filtration | |
| 570-165901-3 MS | Outfall002_20231222_Comp_F | Dissolved | Water | Filtration | |
| 570-165901-3 MSD | Outfall002_20231222_Comp_F | Dissolved | Water | Filtration | |

Prep Batch: 399662

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165901-3 | Outfall002_20231222_Comp_F | Dissolved | Water | 245.1 | 399609 |
| MB 570-399609/1-C | Method Blank | Dissolved | Water | 245.1 | 399609 |
| LCS 570-399609/2-C | Lab Control Sample | Dissolved | Water | 245.1 | 399609 |
| LCSD 570-399609/3-C | Lab Control Sample Dup | Dissolved | Water | 245.1 | 399609 |
| 570-165901-3 MS | Outfall002_20231222_Comp_F | Dissolved | Water | 245.1 | 399609 |
| 570-165901-3 MSD | Outfall002_20231222_Comp_F | Dissolved | Water | 245.1 | 399609 |

Analysis Batch: 399960

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 245.1 | 399598 |
| 570-165901-3 | Outfall002_20231222_Comp_F | Dissolved | Water | 245.1 | 399662 |
| MB 570-399598/1-A | Method Blank | Total/NA | Water | 245.1 | 399598 |
| MB 570-399609/1-C | Method Blank | Dissolved | Water | 245.1 | 399662 |
| LCS 570-399598/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 399598 |
| LCS 570-399609/2-C | Lab Control Sample | Dissolved | Water | 245.1 | 399662 |
| LCSD 570-399598/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 399598 |
| LCSD 570-399609/3-C | Lab Control Sample Dup | Dissolved | Water | 245.1 | 399662 |
| 570-165901-1 MS | Outfall002_20231222_Comp | Total/NA | Water | 245.1 | 399598 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Metals (Continued)

Analysis Batch: 399960 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|----------------------------|-----------|--------|--------|------------|
| 570-165901-1 MSD | Outfall002_20231222_Comp | Total/NA | Water | 245.1 | 399598 |
| 570-165901-3 MS | Outfall002_20231222_Comp_F | Dissolved | Water | 245.1 | 399662 |
| 570-165901-3 MSD | Outfall002_20231222_Comp_F | Dissolved | Water | 245.1 | 399662 |

General Chemistry

Analysis Batch: 396020

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | SM 2130B | |
| LCSSRM 570-396020/1 | Lab Control Sample | Total/NA | Water | SM 2130B | |
| LCSSRM 570-396020/2 | Lab Control Sample | Total/NA | Water | SM 2130B | |
| LCSSRM 570-396020/3 | Lab Control Sample | Total/NA | Water | SM 2130B | |

Prep Batch: 396027

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | BOD Prep | |
| USB 570-396027/1-A | Method Blank | Total/NA | Water | BOD Prep | |
| LCS 570-396027/3-A | Lab Control Sample | Total/NA | Water | BOD Prep | |

Prep Batch: 396034

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | SM 5540C | |
| MB 570-396034/5-A | Method Blank | Total/NA | Water | SM 5540C | |
| LCS 570-396034/6-A | Lab Control Sample | Total/NA | Water | SM 5540C | |
| LCSD 570-396034/7-A | Lab Control Sample Dup | Total/NA | Water | SM 5540C | |
| 570-165901-1 MS | Outfall002_20231222_Comp | Total/NA | Water | SM 5540C | |
| 570-165901-1 MSD | Outfall002_20231222_Comp | Total/NA | Water | SM 5540C | |

Analysis Batch: 396050

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | SM 5540C | 396034 |
| MB 570-396034/5-A | Method Blank | Total/NA | Water | SM 5540C | 396034 |
| LCS 570-396034/6-A | Lab Control Sample | Total/NA | Water | SM 5540C | 396034 |
| LCSD 570-396034/7-A | Lab Control Sample Dup | Total/NA | Water | SM 5540C | 396034 |
| 570-165901-1 MS | Outfall002_20231222_Comp | Total/NA | Water | SM 5540C | 396034 |
| 570-165901-1 MSD | Outfall002_20231222_Comp | Total/NA | Water | SM 5540C | 396034 |

Analysis Batch: 396331

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | SM 2540D | |
| MB 570-396331/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 570-396331/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 570-396331/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

Analysis Batch: 396762

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | SM 2540C | |
| MB 570-396762/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 570-396762/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 570-396762/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |

Eurofins Calscience

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

General Chemistry

Analysis Batch: 396884

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | SM 5210B | 396027 |
| USB 570-396027/1-A | Method Blank | Total/NA | Water | SM 5210B | 396027 |
| LCS 570-396027/3-A | Lab Control Sample | Total/NA | Water | SM 5210B | 396027 |

Analysis Batch: 398571

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | Kelada 01 | |
| MB 570-398571/11 | Method Blank | Total/NA | Water | Kelada 01 | |
| LCS 570-398571/12 | Lab Control Sample | Total/NA | Water | Kelada 01 | |
| LCSD 570-398571/13 | Lab Control Sample Dup | Total/NA | Water | Kelada 01 | |
| MRL 570-398571/10 | Lab Control Sample | Total/NA | Water | Kelada 01 | |

Prep Batch: 398793

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|-----------------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | Distill/Ammonia | |
| MB 570-398793/5-A | Method Blank | Total/NA | Water | Distill/Ammonia | |
| LCS 570-398793/6-A | Lab Control Sample | Total/NA | Water | Distill/Ammonia | |
| LCSD 570-398793/7-A | Lab Control Sample Dup | Total/NA | Water | Distill/Ammonia | |

Analysis Batch: 398797

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 350.1 | 398793 |
| MB 570-398793/5-A | Method Blank | Total/NA | Water | 350.1 | 398793 |
| LCS 570-398793/6-A | Lab Control Sample | Total/NA | Water | 350.1 | 398793 |
| LCSD 570-398793/7-A | Lab Control Sample Dup | Total/NA | Water | 350.1 | 398793 |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

Date Collected: 12/22/23 07:45

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|-------------------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Prep | 625 | | | 825.4 mL | 2 mL | 397007 | 12/29/23 14:23 | TR8L | EET CAL 4 |
| Total/NA | Analysis | 625.1 SIM | | 1 | 1 mL | 1 mL | 399510 | 01/09/24 18:47 | ULLI | EET CAL 4 |
| | | Instrument ID: GCMSJJJ | | | | | | | | |
| Total/NA | Prep | 608 | | | 1500 mL | 1 mL | 397759 | 12/29/23 07:01 | TR8L | EET CAL 4 |
| Total/NA | Analysis | 608.3 | | 1 | 1 mL | 1 mL | 399059 | 01/08/24 08:34 | N5Y3 | EET CAL 4 |
| | | Instrument ID: GC54A | | | | | | | | |
| Total/NA | Prep | 608 | | | 1500 mL | 1 mL | 397759 | 12/29/23 07:01 | TR8L | EET CAL 4 |
| Total/NA | Analysis | 608.3 | | 1 | 1 mL | 1 mL | 397945 | 01/03/24 14:09 | OM8W | EET CAL 4 |
| | | Instrument ID: GC58 | | | | | | | | |
| Total/NA | Analysis | 300.0 | | 1 | 4 mL | 4 mL | 395973 | 12/23/23 08:27 | UIP1 | EET CAL 4 |
| | | Instrument ID: IC9 | | | | | | | | |
| Total/NA | Analysis | 300.0 | | 1 | 4 mL | 4 mL | 395974 | 12/23/23 08:27 | UIP1 | EET CAL 4 |
| | | Instrument ID: IC9 | | | | | | | | |
| Total/NA | Analysis | 300.0 | DL | 10 | 4 mL | 4 mL | 395974 | 12/23/23 10:58 | UIP1 | EET CAL 4 |
| | | Instrument ID: IC9 | | | | | | | | |
| Total/NA | Analysis | 314.0 | | 1 | 4 mL | 4 mL | 400300 | 01/11/24 20:08 | U9XB | EET CAL 4 |
| | | Instrument ID: IC13 | | | | | | | | |
| Total/NA | Analysis | NO2NO3 Calc | | 1 | | | 399041 | 12/23/23 08:27 | URMH | EET CAL 4 |
| | | Instrument ID: IC9 | | | | | | | | |
| Total Recoverable | Prep | 200.8 | | | 50 mL | 50 mL | 396612 | 12/28/23 07:02 | RL6Q | EET CAL 4 |
| Total Recoverable | Analysis | 200.8 | | 1 | | | 397364 | 12/29/23 12:32 | P1R | EET CAL 4 |
| | | Instrument ID: ICPMS10 | | | | | | | | |
| Total/NA | Prep | 245.1 | | | 25 mL | 50 mL | 399598 | 01/09/24 13:04 | EV3M | EET CAL 4 |
| Total/NA | Analysis | 245.1 | | 1 | | | 399960 | 01/10/24 14:29 | ECX6 | EET CAL 4 |
| | | Instrument ID: HG9 | | | | | | | | |
| Total Recoverable | Analysis | SM 2340B | | 1 | | | 396163 | 12/29/23 17:04 | P1R | EET CAL 4 |
| | | Instrument ID: NOEQUIP | | | | | | | | |
| Total/NA | Prep | Distill/Ammonia | | | 5 mL | 5 mL | 398793 | 01/05/24 09:38 | UXCH | EET CAL 4 |
| Total/NA | Analysis | 350.1 | | 1 | 5 mL | 5 mL | 398797 | 01/05/24 12:11 | UXCH | EET CAL 4 |
| | | Instrument ID: ACA2 | | | | | | | | |
| Total/NA | Analysis | Kelada 01 | | 1 | 8 mL | 8 mL | 398571 | 01/04/24 14:57 | GG0B | EET CAL 4 |
| | | Instrument ID: LACHAT01 | | | | | | | | |
| Total/NA | Analysis | SM 2130B | | 1 | | | 396020 | 12/23/23 09:55 | ZVB7 | EET CAL 4 |
| | | Instrument ID: TUR5 | | | | | | | | |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 1000 mL | 396762 | 12/28/23 12:15 | GG0B | EET CAL 4 |
| | | Instrument ID: BAL100 | | | | | | | | |
| Total/NA | Analysis | SM 2540D | | 1 | 350 mL | 1000 mL | 396331 | 12/27/23 11:45 | GG0B | EET CAL 4 |
| | | Instrument ID: NOEQUIP | | | | | | | | |
| Total/NA | Prep | BOD Prep | | | | | 396027 | 12/23/23 10:12 | TN8Z | EET CAL 4 |
| Total/NA | Analysis | SM 5210B | | 1 | 300 mL | 300 mL | 396884 | 12/28/23 14:39 | TN8Z | EET CAL 4 |
| | | Instrument ID: BOD3 | | | | | | | | |
| Total/NA | Prep | SM 5540C | | | 100 mL | 100 mL | 396034 | 12/23/23 10:10 | ZVB7 | EET CAL 4 |
| Total/NA | Analysis | SM 5540C | | 1 | 100 mL | 100 mL | 396050 | 12/23/23 11:44 | ZVB7 | EET CAL 4 |
| | | Instrument ID: UV8 | | | | | | | | |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Client Sample ID: Outfall002_20231222_Comp_F

Lab Sample ID: 570-165901-3

Date Collected: 12/22/23 07:45

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|------------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Dissolved | Filtration | Filtration | | | 50 mL | 50 mL | 397913 | 01/03/24 08:42 | JP8N | EET CAL 4 |
| Dissolved | Analysis | 200.8 | | 1 | | | 398534 | 01/04/24 14:59 | P1R | EET CAL 4 |
| Instrument ID: ICPMS09 | | | | | | | | | | |
| Dissolved | Filtration | Filtration | | | 25 mL | 25 mL | 399609 | 01/09/24 13:29 | JP8N | EET CAL 4 |
| Dissolved | Prep | 245.1 | | | 25 mL | 50 mL | 399662 | 01/09/24 15:21 | EV3M | EET CAL 4 |
| Dissolved | Analysis | 245.1 | | 1 | | | 399960 | 01/10/24 12:50 | ECX6 | EET CAL 4 |
| Instrument ID: HG9 | | | | | | | | | | |
| Dissolved | Analysis | SM 2340B | | 1 | | | 396164 | 01/06/24 17:05 | P1R | EET CAL 4 |
| Instrument ID: NOEQUIP | | | | | | | | | | |

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|------------|---|-----------------------|-----------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

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Method Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

| Method | Method Description | Protocol | Laboratory |
|-----------------|--|----------|------------|
| 625.1 SIM | Semivolatile Organic Compounds GC/MS (SIM) | EPA | EET CAL 4 |
| 608.3 | Organochlorine Pesticides in Water | EPA | EET CAL 4 |
| 608.3 | Polychlorinated Biphenyls (PCBs) (GC) | EPA | EET CAL 4 |
| 300.0 | Anions, Ion Chromatography | EPA | EET CAL 4 |
| 314.0 | Perchlorate (IC) | EPA | EET CAL 4 |
| NO2NO3 Calc | Nitrogen, Nitrate-Nitrite | EPA | EET CAL 4 |
| 200.8 | Metals (ICP/MS) | EPA | EET CAL 4 |
| 245.1 | Mercury (CVAA) | EPA | EET CAL 4 |
| SM 2340B | Total Hardness (as CaCO3) by calculation | SM | EET CAL 4 |
| 350.1 | Nitrogen, Ammonia | EPA | EET CAL 4 |
| Kelada 01 | Cyanide, Total, Acid Dissociable and Thiocyanate | EPA | EET CAL 4 |
| SM 2130B | Turbidity | SM | EET CAL 4 |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET CAL 4 |
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET CAL 4 |
| SM 5210B | BOD, 5-Day | SM | EET CAL 4 |
| SM 5540C | Methylene Blue Active Substances (MBAS) | SM | EET CAL 4 |
| 200.8 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 245.1 | Preparation, Mercury | EPA | EET CAL 4 |
| 608 | Liquid-Liquid Extraction (Separatory Funnel) | EPA | EET CAL 4 |
| 625 | Liquid-Liquid Extraction | EPA | EET CAL 4 |
| BOD Prep | Preparation, BOD | SM | EET CAL 4 |
| Distill/Ammonia | Distillation, Ammonia | None | EET CAL 4 |
| Filtration | Sample Filtration | None | EET CAL 4 |
| SM 5540C | Preparation, Methylene Blue Active Substances (MBAS) | SM | EET CAL 4 |

Protocol References:

- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-1

| <u>Lab Sample ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Collected</u> | <u>Received</u> |
|----------------------|----------------------------|---------------|------------------|-----------------|
| 570-165901-1 | Outfall002_20231222_Comp | Water | 12/22/23 07:45 | 12/22/23 17:30 |
| 570-165901-3 | Outfall002_20231222_Comp_F | Water | 12/22/23 07:45 | 12/22/23 17:30 |

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Virendra Patel

From: Pehlivan, Victoria <VPehlivan@haleyaldrich.com>
Sent: Friday, January 26, 2024 3:36 PM
To: Virendra Patel
Cc: Miller, Katherine; Dallalah, Michelle
Subject: RE: 570-165901-1 Boeing NPDES SSFL - Outfall 002 - Comp report and EDD files from Eurofins Southwest

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Hi Virendra,

Please remove the 624.1 method from 570-165901-1 sample Outfall002_20231222_Comp as this was not a required analysis and an updated coc/request was submitted on 12/26/2023 with this request.

Thank you,

Victoria Pehlivan
Technical Specialist, Geologist

Haley & Aldrich, Inc.
3131 Elliott Avenue | Suite 600
Seattle, WA 98121

C: (916) 303.0301
vpehlivan@haleyaldrich.com

www.haleyaldrich.com

From: Virendra Patel <Virendra.Patel@et.eurofinsus.com>
Sent: Sunday, January 14, 2024 11:21 AM
To: Equis <equis@haleyaldrich.com>; Miller, Katherine <KMiller@haleyaldrich.com>; Rapp, Kerry <KRapp@haleyaldrich.com>; Dallalah, Michelle <MDallalah@haleyaldrich.com>; Patel Virendra <Virendra.Patel@et.eurofinsus.com>; Pehlivan, Victoria <VPehlivan@haleyaldrich.com>
Subject: 570-165901-1 Boeing NPDES SSFL - Outfall 002 - Comp report and EDD files from Eurofins Southwest

CAUTION: External Email

Hello,

Attached please find the report and EDD files for job 570-165901-1; Boeing NPDES SSFL - Outfall 002 - Comp

Please feel free to contact me if you have any questions.

Thank you.

Virendra Patel

Project Manager

Eurofins Calscience

Phone: 714-895-5494

Mobile: 714-887-9901

E-mail: Virendra.Patel@et.eurofinsus.com

www.eurofinsus.com/env



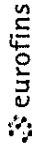
Reference: [570-577071]

Attachments: 2

> > Bank information has changed, please refer to remittance information on invoice. < <

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Chain of Custody Record



Environmental Testing



| | | | | | |
|---|---------------|---|--|--|--|
| Client Information (Sub Contract Lab) | | Lab PM: Patel, Virendra | | Carrier Tracking No(s): 570-334294.1 | |
| Client Contact: Shipping/Receiving | | E-Mail: Virendra.Patel@eurofins.com | | Page: Page 1 of 1 | |
| Company: Eurofins Environment Testing Northern Ca | | State: California | | Job #: 570-165901-2 | |
| Address: 880 Riverside Parkway | | City: West Sacramento | | State of Origin: California | |
| State, Zip: CA, 95605 | | PO #: 916-373-5600(Tel) 916-372-1059(Fax) | | Preservation Codes: M Hexane, N None, O AsNaO2, P Na2OAS, Q Na2SO3, R Na2SO4, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, X Trizma, Y EDTA, Z other (specify) | |
| Project Name: Boeing NPDES SSFL Outfall 002 Comp | | Project #: 57013187 | | Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, Other | |
| Site: 57013187 | | SSOW#: 57013187 | | Special Instructions/Note: | |
| Sample Identification - Client ID (Lab ID) | | Field Filtered Sample (Yes or No) | | Total Number of Containers | |
| Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (Water, Solid, O-wastefoil, etc.) | Perform MS/MSD (Yes or No) | Special Instructions/Note: |
| 12/22/23 | 07:45 Pacific | Water | Water | X | 2 See QAS: Boeig_wlu to zero, ug/L, Use Boeig glassware. |
| 12/22/23 | 07:45 Pacific | Water | Water | X | 2 See QAS: Boeig_wlu to zero, ug/L, Use Boeig glassware. |
| Due Date Requested: 1/16/2024 | | TAT Requested (days): | | Tota (Hold) | |
| 1/16/2024 | | | | 1613B/1613B_Sox_Sep_P (MOD) Standard List w/ | |
| 1/16/2024 | | | | 1613B/1613B_Sox_Sep_P (MOD) Standard List w/ | |

Analysis Requested

Accreditations Required (See note): State California; State Program California

Special Instructions/Note: See QAS: Boeig_wlu to zero, ug/L, Use Boeig glassware.

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Primary Deliverable Rank: 2

Empty Kit-Relinquished by: _____ Date: _____

Relinquished by: _____ Date/Time: 12/26/23 1400 Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Custody Seal No. _____
 Δ Yes Δ No

Cooler Temperature(s) °C and Other Remarks:

ICOC No:
570-334300

Containers

| <u>Count</u> | <u>Container Type</u> | <u>Preservative</u> |
|--------------|-----------------------------|---------------------|
| 3 | Voa Vial 40ml - unpreserved | None |

Subcontract Method Instructions

| Sample IDs | Method | Method Description | Method Comments |
|------------|-------------|-----------------------------|---------------------------------|
| 1 | SUBCONTRACT | SUB (VOCs-2CVE only (E624)) | Level IV package, MDL, EQUIS 5C |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165901-1

Login Number: 165901

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is < /= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is < 6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 2/7/2024 11:53:09 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 002 - Comp

JOB NUMBER

570-165901-2

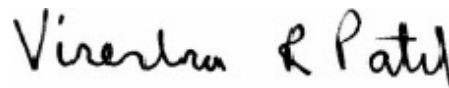
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



Generated
2/7/2024 11:53:09 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Qualifiers

Dioxin

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| MB | Analyte present in the method blank |
| q | The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| ♠ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Job ID: 570-165901-2

Eurofins Calscience

Job Narrative 570-165901-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6°C, 2.2°C and 2.4°C

Dioxin

Method 1613B: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD and 13C-1,2,3,7,8,9-HxCDD associated with the following samples run on instrument 10D5 exceeded this criteria: (CCV 320-737022/1), (LCS 320-734694/2-A), (LCSD 320-734694/3-A) and (MB 320-734694/1-A). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

Method 1613B: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD and 13C-1,2,3,7,8,9-HxCDD associated with the following samples run on instrument 10D5 exceeded this criteria: Outfall002_20231222_Comp (570-165901-1) and (CCV 320-737584/2). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

| Analyte | Result | Qualifier | RL | EDL | Unit | Dil Fac | D | Method | Prep Type |
|---------------------|------------|-----------|----------|-----------|------|---------|---|--------|-----------|
| 1,2,3,4,7,8-HxCDD | 0.0000014 | J,DX q | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 3 | | | | | |
| 1,2,3,7,8,9-HxCDD | 0.00000086 | J,DX q | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 2 | | | | | |
| 1,2,3,7,8,9-HxCDF | 0.0000010 | J,DX | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 3 | | | | | |
| 1,2,3,4,6,7,8-HpCDD | 0.0000021 | J,DX MB | 0.000049 | 0.0000004 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 9 | | | | | |
| 1,2,3,4,6,7,8-HpCDF | 0.0000090 | J,DX MB | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 4 | | | | | |
| 1,2,3,4,7,8,9-HpCDF | 0.0000010 | J,DX q | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 4 | | | | | |
| OCDD | 0.00025 | MB | 0.000098 | 0.0000014 | ug/L | 1 | | 1613B | Total/NA |
| OCDF | 0.000021 | J,DX MB | 0.000098 | 0.0000006 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 5 | | | | | |
| Total HxCDD | 0.0000044 | J,DX q | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 3 | | | | | |
| Total HxCDF | 0.0000036 | J,DX | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 8 | | | | | |
| Total HpCDD | 0.000042 | J,DX MB | 0.000049 | 0.0000004 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 9 | | | | | |
| Total HpCDF | 0.000020 | J,DX MB q | 0.000049 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 4 | | | | | |

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS)

Client Sample ID: Outfall002_20231222_Comp

Date Collected: 12/22/23 07:45

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1

Matrix: Water

| Analyte | Result | Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------|-------------------|------------------|---------------|-----------|------|---|-----------------|-----------------|----------------|
| 2,3,7,8-TCDD | ND | | 0.0000098 | 0.0000005 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 2,3,7,8-TCDF | ND | | 0.0000098 | 0.0000004 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,7,8-PeCDD | ND | | 0.000049 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,7,8-PeCDF | ND | | 0.000049 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 2,3,4,7,8-PeCDF | ND | | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,4,7,8-HxCDD | 0.0000014 | J,DX q | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,6,7,8-HxCDD | ND | | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,7,8,9-HxCDD | 0.00000086 | J,DX q | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,4,7,8-HxCDF | ND | | 0.000049 | 0.0000004 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,6,7,8-HxCDF | ND | | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,7,8,9-HxCDF | 0.0000010 | J,DX | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 2,3,4,6,7,8-HxCDF | ND | | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,4,6,7,8-HpCDD | 0.000021 | J,DX MB | 0.000049 | 0.0000004 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,4,6,7,8-HpCDF | 0.0000090 | J,DX MB | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 1,2,3,4,7,8,9-HpCDF | 0.0000010 | J,DX q | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| OCDD | 0.000025 | MB | 0.000098 | 0.0000014 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| OCDF | 0.000021 | J,DX MB | 0.000098 | 0.0000006 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| Total TCDD | ND | | 0.0000098 | 0.0000005 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| Total TCDF | ND | | 0.0000098 | 0.0000004 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| Total PeCDD | ND | | 0.000049 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| Total PeCDF | ND | | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| Total HxCDD | 0.0000044 | J,DX q | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| Total HxCDF | 0.0000036 | J,DX | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| Total HpCDD | 0.000042 | J,DX MB | 0.000049 | 0.0000004 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| Total HpCDF | 0.000020 | J,DX MB q | 0.000049 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| Isotope Dilution | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 13C-2,3,7,8-TCDD | 57 | | 25 - 164 | | | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-2,3,7,8-TCDF | 53 | | 24 - 169 | | | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-1,2,3,7,8-PeCDD | 81 | | 25 - 181 | | | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-1,2,3,7,8-PeCDF | 58 | | 24 - 185 | | | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-2,3,4,7,8-PeCDF | 56 | | 21 - 178 | | | | 01/19/24 08:46 | 02/01/24 11:46 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: Outfall002_20231222_Comp
Date Collected: 12/22/23 07:45
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1
Matrix: Water

| <u>Isotope Dilution</u> | <u>%Recovery</u> | <u>Qualifier</u> | <u>Limits</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Dil Fac</u> |
|-------------------------|------------------|------------------|---------------|-----------------|-----------------|----------------|
| 13C-1,2,3,4,7,8-HxCDD | 64 | | 32 - 141 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-1,2,3,6,7,8-HxCDD | 62 | | 28 - 130 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-1,2,3,4,7,8-HxCDF | 55 | | 26 - 152 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-1,2,3,6,7,8-HxCDF | 55 | | 26 - 123 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-1,2,3,7,8,9-HxCDF | 58 | | 29 - 147 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-2,3,4,6,7,8-HxCDF | 57 | | 28 - 136 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDD | 62 | | 23 - 140 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDF | 54 | | 28 - 143 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-1,2,3,4,7,8,9-HpCDF | 57 | | 26 - 138 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-OCDD | 58 | | 17 - 157 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| 13C-OCDF | 57 | | 17 - 157 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |
| | | | | | | |
| <u>Surrogate</u> | <u>%Recovery</u> | <u>Qualifier</u> | <u>Limits</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Dil Fac</u> |
| 37Cl4-2,3,7,8-TCDD | 82 | | 35 - 197 | 01/19/24 08:46 | 02/01/24 11:46 | 1 |

Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | 37TCDD (35-197) |
|-------------------|--------------------------|--------------------|
| 570-165901-1 | Outfall002_20231222_Comp | 82 |
| MB 320-734694/1-A | Method Blank | 87 |

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | 37TCDD (31-191) |
|---------------------|------------------------|--------------------|
| LCS 320-734694/2-A | Lab Control Sample | 89 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 88 |

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCDD (25-164) | TCDF (24-169) | PeCDD (25-181) | PeCDF (24-185) | PeCF (21-178) | HxCDD (32-141) | HxDD (28-130) | HxCDF (26-152) |
|-------------------|--------------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| 570-165901-1 | Outfall002_20231222_Comp | 57 | 53 | 81 | 58 | 56 | 64 | 62 | 55 |
| MB 320-734694/1-A | Method Blank | 60 | 59 | 72 | 57 | 56 | 59 | 62 | 60 |

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | HxDF (26-123) | HxCF (29-147) | 13CHxCF (28-136) | HpCDD (23-140) | HpCDF (28-143) | HpCDF2 (26-138) | OCDD (17-157) | OCDF (17-157) |
|-------------------|--------------------------|------------------|------------------|---------------------|-------------------|-------------------|--------------------|------------------|------------------|
| 570-165901-1 | Outfall002_20231222_Comp | 55 | 58 | 57 | 62 | 54 | 57 | 58 | 57 |
| MB 320-734694/1-A | Method Blank | 62 | 60 | 63 | 56 | 55 | 53 | 46 | 49 |

Surrogate Legend

- TCDD = 13C-2,3,7,8-TCDD
- TCDF = 13C-2,3,7,8-TCDF
- PeCDD = 13C-1,2,3,7,8-PeCDD
- PeCDF = 13C-1,2,3,7,8-PeCDF
- PeCF = 13C-2,3,4,7,8-PeCDF
- HxCDD = 13C-1,2,3,4,7,8-HxCDD
- HxDD = 13C-1,2,3,6,7,8-HxCDD
- HxCDF = 13C-1,2,3,4,7,8-HxCDF
- HxDF = 13C-1,2,3,6,7,8-HxCDF
- HxCF = 13C-1,2,3,7,8,9-HxCDF
- 13CHxCF = 13C-2,3,4,6,7,8-HxCDF
- HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
- HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
- HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
- OCDD = 13C-OCDD
- OCDF = 13C-OCDF

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCDD (20-175) | TCDF (22-152) | PeCDD (21-227) | PeCDF (21-192) | PeCF (13-328) | HxCDD (21-193) | HxDD (25-163) | HxCDF (19-202) |
|---------------------|------------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| LCS 320-734694/2-A | Lab Control Sample | 57 | 57 | 65 | 51 | 50 | 55 | 57 | 57 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 55 | 54 | 67 | 54 | 51 | 56 | 58 | 57 |

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | HxDF (21-159) | HxCF (17-205) | 13CHxCF (22-176) | HpCDD (26-166) | HpCDF (21-158) | HpCDF2 (20-186) | OCDD (13-199) | OCDF (13-199) |
|---------------------|------------------------|------------------|------------------|---------------------|-------------------|-------------------|--------------------|------------------|------------------|
| LCS 320-734694/2-A | Lab Control Sample | 58 | 57 | 56 | 54 | 51 | 51 | 42 | 44 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 58 | 59 | 57 | 56 | 54 | 54 | 44 | 47 |

Surrogate Legend

- TCDD = 13C-2,3,7,8-TCDD
- TCDF = 13C-2,3,7,8-TCDF
- PeCDD = 13C-1,2,3,7,8-PeCDD
- PeCDF = 13C-1,2,3,7,8-PeCDF
- PeCF = 13C-2,3,4,7,8-PeCDF
- HxCDD = 13C-1,2,3,4,7,8-HxCDD
- HxDD = 13C-1,2,3,6,7,8-HxCDD
- HxCDF = 13C-1,2,3,4,7,8-HxCDF
- HxDF = 13C-1,2,3,6,7,8-HxCDF

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Isotope Dilution Summary

Client: Haley & Aldrich, Inc.

Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

HxCDF = 13C-1,2,3,7,8,9-HxCDF

13CHxCDF = 13C-2,3,4,6,7,8-HxCDF

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD

HpCDF = 13C-1,2,3,4,6,7,8-HpCDF

HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF

OCDD = 13C-OCDD

OCDF = 13C-OCDF

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-734694/1-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 734694

| Isotope Dilution | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 13C-1,2,3,7,8-PeCDF | 57 | | 24 - 185 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-2,3,4,7,8-PeCDF | 56 | | 21 - 178 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8-HxCDD | 59 | | 32 - 141 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,6,7,8-HxCDD | 62 | | 28 - 130 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8-HxCDF | 60 | | 26 - 152 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,6,7,8-HxCDF | 62 | | 26 - 123 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,7,8,9-HxCDF | 60 | | 29 - 147 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-2,3,4,6,7,8-HxCDF | 63 | | 28 - 136 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDD | 56 | | 23 - 140 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDF | 55 | | 28 - 143 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8,9-HpCDF | 53 | | 26 - 138 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-OCDD | 46 | | 17 - 157 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-OCDF | 49 | | 17 - 157 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 37Cl4-2,3,7,8-TCDD | 87 | | 35 - 197 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |

Lab Sample ID: LCS 320-734694/2-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734694

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec | Limits |
|---------------------|-------------|------------|---------------|------|---|------|----------|--------|
| | | | | | | | | |
| 2,3,7,8-TCDF | 0.000200 | 0.000194 | | ug/L | | 97 | 75 - 158 | |
| 1,2,3,7,8-PeCDD | 0.00100 | 0.000727 | | ug/L | | 73 | 70 - 142 | |
| 1,2,3,7,8-PeCDF | 0.00100 | 0.000944 | | ug/L | | 94 | 80 - 134 | |
| 2,3,4,7,8-PeCDF | 0.00100 | 0.000976 | | ug/L | | 98 | 68 - 160 | |
| 1,2,3,4,7,8-HxCDD | 0.00100 | 0.000891 | | ug/L | | 89 | 70 - 164 | |
| 1,2,3,6,7,8-HxCDD | 0.00100 | 0.00103 | | ug/L | | 103 | 76 - 134 | |
| 1,2,3,7,8,9-HxCDD | 0.00100 | 0.000994 | | ug/L | | 99 | 64 - 162 | |
| 1,2,3,4,7,8-HxCDF | 0.00100 | 0.000917 | | ug/L | | 92 | 72 - 134 | |
| 1,2,3,6,7,8-HxCDF | 0.00100 | 0.000913 | | ug/L | | 91 | 84 - 130 | |
| 1,2,3,7,8,9-HxCDF | 0.00100 | 0.000916 | | ug/L | | 92 | 78 - 130 | |
| 2,3,4,6,7,8-HxCDF | 0.00100 | 0.000927 | | ug/L | | 93 | 70 - 156 | |
| 1,2,3,4,6,7,8-HpCDD | 0.00100 | 0.000883 | | ug/L | | 88 | 70 - 140 | |
| 1,2,3,4,6,7,8-HpCDF | 0.00100 | 0.000985 | | ug/L | | 98 | 82 - 122 | |
| 1,2,3,4,7,8,9-HpCDF | 0.00100 | 0.000917 | | ug/L | | 92 | 78 - 138 | |
| OCDD | 0.00200 | 0.00192 | | ug/L | | 96 | 78 - 144 | |
| OCDF | 0.00200 | 0.00185 | | ug/L | | 92 | 63 - 170 | |

| Isotope Dilution | LCS LCS | | Limits |
|-----------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-2,3,7,8-TCDD | 57 | | 20 - 175 |
| 13C-2,3,7,8-TCDF | 57 | | 22 - 152 |
| 13C-1,2,3,7,8-PeCDD | 65 | | 21 - 227 |
| 13C-1,2,3,7,8-PeCDF | 51 | | 21 - 192 |
| 13C-2,3,4,7,8-PeCDF | 50 | | 13 - 328 |
| 13C-1,2,3,4,7,8-HxCDD | 55 | | 21 - 193 |
| 13C-1,2,3,6,7,8-HxCDD | 57 | | 25 - 163 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-734694/2-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734694

| Isotope Dilution | LCS LCS | | Limits |
|-------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-1,2,3,4,7,8-HxCDF | 57 | | 19 - 202 |
| 13C-1,2,3,6,7,8-HxCDF | 58 | | 21 - 159 |
| 13C-1,2,3,7,8,9-HxCDF | 57 | | 17 - 205 |
| 13C-2,3,4,6,7,8-HxCDF | 56 | | 22 - 176 |
| 13C-1,2,3,4,6,7,8-HpCDD | 54 | | 26 - 166 |
| 13C-1,2,3,4,6,7,8-HpCDF | 51 | | 21 - 158 |
| 13C-1,2,3,4,7,8,9-HpCDF | 51 | | 20 - 186 |
| 13C-OCDD | 42 | | 13 - 199 |
| 13C-OCDF | 44 | | 13 - 199 |

| Surrogate | LCS LCS | | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 37Cl4-2,3,7,8-TCDD | 89 | | 31 - 191 |

Lab Sample ID: LCSD 320-734694/3-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 734694

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec | | RPD | RPD Limit |
|---------------------|-------------|-------------|----------------|------|---|------|----------|-----|-----|-----------|
| | | | | | | | Limits | RPD | | |
| 2,3,7,8-TCDD | 0.000200 | 0.000216 | | ug/L | | 108 | 67 - 158 | 8 | 50 | |
| 2,3,7,8-TCDF | 0.000200 | 0.000200 | | ug/L | | 100 | 75 - 158 | 3 | 50 | |
| 1,2,3,7,8-PeCDD | 0.00100 | 0.000761 | | ug/L | | 76 | 70 - 142 | 5 | 50 | |
| 1,2,3,7,8-PeCDF | 0.00100 | 0.000997 | | ug/L | | 100 | 80 - 134 | 5 | 50 | |
| 2,3,4,7,8-PeCDF | 0.00100 | 0.00102 | | ug/L | | 102 | 68 - 160 | 5 | 50 | |
| 1,2,3,4,7,8-HxCDD | 0.00100 | 0.000992 | | ug/L | | 99 | 70 - 164 | 11 | 50 | |
| 1,2,3,6,7,8-HxCDD | 0.00100 | 0.00108 | | ug/L | | 108 | 76 - 134 | 5 | 50 | |
| 1,2,3,7,8,9-HxCDD | 0.00100 | 0.00110 | | ug/L | | 110 | 64 - 162 | 10 | 50 | |
| 1,2,3,4,7,8-HxCDF | 0.00100 | 0.000995 | | ug/L | | 100 | 72 - 134 | 8 | 50 | |
| 1,2,3,6,7,8-HxCDF | 0.00100 | 0.000980 | | ug/L | | 98 | 84 - 130 | 7 | 50 | |
| 1,2,3,7,8,9-HxCDF | 0.00100 | 0.000972 | | ug/L | | 97 | 78 - 130 | 6 | 50 | |
| 2,3,4,6,7,8-HxCDF | 0.00100 | 0.000976 | | ug/L | | 98 | 70 - 156 | 5 | 50 | |
| 1,2,3,4,6,7,8-HpCDD | 0.00100 | 0.000949 | | ug/L | | 95 | 70 - 140 | 7 | 50 | |
| 1,2,3,4,6,7,8-HpCDF | 0.00100 | 0.00110 | | ug/L | | 110 | 82 - 122 | 11 | 50 | |
| 1,2,3,4,7,8,9-HpCDF | 0.00100 | 0.00102 | | ug/L | | 102 | 78 - 138 | 10 | 50 | |
| OCDD | 0.00200 | 0.00212 | | ug/L | | 106 | 78 - 144 | 10 | 50 | |
| OCDF | 0.00200 | 0.00199 | | ug/L | | 99 | 63 - 170 | 7 | 50 | |

| Isotope Dilution | LCSD LCSD | | Limits |
|-----------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-2,3,7,8-TCDD | 55 | | 20 - 175 |
| 13C-2,3,7,8-TCDF | 54 | | 22 - 152 |
| 13C-1,2,3,7,8-PeCDD | 67 | | 21 - 227 |
| 13C-1,2,3,7,8-PeCDF | 54 | | 21 - 192 |
| 13C-2,3,4,7,8-PeCDF | 51 | | 13 - 328 |
| 13C-1,2,3,4,7,8-HxCDD | 56 | | 21 - 193 |
| 13C-1,2,3,6,7,8-HxCDD | 58 | | 25 - 163 |
| 13C-1,2,3,4,7,8-HxCDF | 57 | | 19 - 202 |
| 13C-1,2,3,6,7,8-HxCDF | 58 | | 21 - 159 |
| 13C-1,2,3,7,8,9-HxCDF | 59 | | 17 - 205 |
| 13C-2,3,4,6,7,8-HxCDF | 57 | | 22 - 176 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-734694/3-A
 Matrix: Water
 Analysis Batch: 737022

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 734694

| <i>Isotope Dilution</i> | <i>LCSD LCSD</i> | | <i>Limits</i> |
|-------------------------|------------------|------------------|---------------|
| | <i>%Recovery</i> | <i>Qualifier</i> | |
| 13C-1,2,3,4,6,7,8-HpCDD | 56 | | 26 - 166 |
| 13C-1,2,3,4,6,7,8-HpCDF | 54 | | 21 - 158 |
| 13C-1,2,3,4,7,8,9-HpCDF | 54 | | 20 - 186 |
| 13C-OCDD | 44 | | 13 - 199 |
| 13C-OCDF | 47 | | 13 - 199 |

| <i>Surrogate</i> | <i>LCSD LCSD</i> | | <i>Limits</i> |
|--------------------|------------------|------------------|---------------|
| | <i>%Recovery</i> | <i>Qualifier</i> | |
| 37Cl4-2,3,7,8-TCDD | 88 | | 31 - 191 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Specialty Organics

Prep Batch: 734694

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 1613B | |
| MB 320-734694/1-A | Method Blank | Total/NA | Water | 1613B | |
| LCS 320-734694/2-A | Lab Control Sample | Total/NA | Water | 1613B | |
| LCSD 320-734694/3-A | Lab Control Sample Dup | Total/NA | Water | 1613B | |

Analysis Batch: 737022

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| MB 320-734694/1-A | Method Blank | Total/NA | Water | 1613B | 734694 |
| LCS 320-734694/2-A | Lab Control Sample | Total/NA | Water | 1613B | 734694 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | Total/NA | Water | 1613B | 734694 |

Analysis Batch: 737584

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|--------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | 1613B | 734694 |

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

Date Collected: 12/22/23 07:45

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 1613B | | | 1016.7 mL | 20.0 uL | 734694 | 01/19/24 08:46 | C1S | EET SAC |
| Total/NA | Analysis | 1613B | | 1 | 1 Sample | 1 Sample | 737584 | 02/01/24 11:46 | JBC | EET SAC |

Instrument ID: 10D5

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|--------------------|-----------------------|-----------------------|-----------------|
| Alaska (UST) | State | 17-020 | 02-20-24 |
| ANAB | Dept. of Defense ELAP | L2468 | 01-20-27 |
| ANAB | Dept. of Energy | L2468.01 | 01-20-27 |
| ANAB | ISO/IEC 17025 | L2468 | 01-20-27 |
| Arizona | State | AZ0708 | 08-11-24 |
| Arkansas DEQ | State | 88-0691 | 05-18-24 |
| California | State | 2897 | 01-31-26 |
| Colorado | State | CA00044 | 08-31-24 |
| Florida | NELAP | E87570 | 06-30-24 |
| Georgia | State | 4040 | 01-29-25 |
| Hawaii | State | <cert No.> | 01-29-24 * |
| Illinois | NELAP | 200060 | 03-17-24 |
| Kansas | NELAP | E-10375 | 10-31-24 |
| Louisiana | NELAP | 01944 | 06-30-24 |
| Louisiana (All) | NELAP | 01944 | 06-30-24 |
| Maine | State | CA00004 | 04-14-24 |
| Michigan | State | 9947 | 01-31-24 * |
| Nevada | State | CA00044 | 07-31-24 |
| New Hampshire | NELAP | 2997 | 04-18-24 |
| New Jersey | NELAP | CA005 | 06-30-24 |
| New York | NELAP | 11666 | 04-01-24 |
| Ohio | State | 41252 | 01-29-25 |
| Oregon | NELAP | 4040 | 01-29-25 |
| Texas | NELAP | T104704399-23-17 | 05-31-24 |
| US Fish & Wildlife | US Federal Programs | 58448 | 04-30-24 |
| USDA | US Federal Programs | P330-18-00239 | 02-28-26 |
| Utah | NELAP | CA000442023-16 | 02-29-24 |
| Virginia | NELAP | 460278 | 03-14-24 |
| Washington | State | C581 | 05-05-24 |
| West Virginia (DW) | State | 9930C | 01-31-25 |
| Wisconsin | State | 998204680 | 08-31-24 |
| Wyoming | State Program | 8TMS-L | 01-28-19 * |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

| Method | Method Description | Protocol | Laboratory |
|--------|---|----------|------------|
| 1613B | Dioxins and Furans (HRGC/HRMS) | EPA | EET SAC |
| 1613B | Separatory Funnel (L/L) Extraction with Soxhlet Extraction of Dioxin and Furans | EPA | EET SAC |

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165901-1 | Outfall002_20231222_Comp | Water | 12/22/23 07:45 | 12/22/23 17:30 |

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CHAIN OF CUSTODY FORM

| Client Name/Address: | | Project: | | ANALYSIS REQUIRED | | | | | | | | | | | | Comments | | | |
|---|----------------------------|---|---------------|---|--------------------------------|--|--|--|---|---|---|--|----------------------------------|-----------------------------------|--|----------|--|--|--|
| Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Boeing-SSFL NPDES Permit 2023 Quarterly Outfall (001, 002, 011, 018) Outfall 002 Comp | | Total Dissolved Metals: (E200.6); Zn, Pb, Cd, Se | Cyanide (SM4500-CN-E / E335.2) | Gross Alpha (E900.0); Gross Beta (E900.0); Tritium (H-3) (E908.0); Sr-90 (E905.0); Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0); Uranium (E908.0); K-40; CS-137 (E901.0 or E901.1) | Chronic Toxicity - Carcinogenicity (EPA-661-R-04-013); ABC Labs in Ventura, CA | Total Dissolved Metals: Mercury (E245.1) | Pesticides: Chlordane, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Dieldrin, Toxaphene + PCBs only (E808) | Total Recoverable Metals: Hardness as CaCO3 | Total Dissolved Metals: Hardness as CaCO3 | Total Dissolved Metals: (E200.8); Mn, Fe | Chlorpyrifos & Diazinon (E525.2) | Week Labs in Hacienda Heights, CA | | | | | |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | | | | | | | | | | | | | | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs with Barisal Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | | | | | | |
| Sampler: Mark Dominick | | | | | | | | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | | | | | | | | | | | |
| Outfall 002 | Outfall002_20231222_Comp_F | 12/22/2023 10745 | WM | 1 L Poly | 1 | None | 190 | Yes | X | | | | | | | | X | Filter and preserve w/in 24hrs of receipt at lab | |
| | | | WM | 500 mL Poly | 1 | HNO ₃ | 80 | No | | | | | | | | X | | | |
| | | | WM | 1L Poly | 1 | None | 200 | No | | X | | | | | | | | | Filter and preserve w/in 24hrs of receipt at lab. Outfall 001 analyze for Fe |
| | | | WM | 1 L Glass Amber | 2 | None | 250 | No | | | | | X | | | | | | Chlordane, DDD, DDE, DDT, dieldrin, PCBs, toxaphene at OF001, 002, 011, or 018 |
| | Outfall002_20231222_Comp | 12/22/2023 10745 | WM | borosilicate vials | 2 | None | 320 | No | | | | X | | | | | | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures |
| | | | WM | 500 mL Poly | 1 | NaOH | 220 | No | | X | | | | | | | | | |
| | | | WM | 2.5 Gal Cube | 1 | None | 225 | No | | | | X | | | | | | | Unfiltered and unpreserved analysis. Separate RAD onto another workorder. Analyze duplicate, not MS/MSD. |
| | | | WM | 1 L Glass Amber | 1 | None | 230 | No | | | | | | | | | | | Only test if first or second rain events of the year. Deliver to ABC Labs in Ventura, CA. |
| WM | 1 Gal Cube | 1 | None | 235 | No | | | | | | X | | | | | | | | |
| WM | 1L Glass Amber | 2 | None | 250 | No | | | | | | | | | | | X | Extract within 24-hours of sampling at Week Labs | | |

Legend: C=Conditional, EP=Expert Panel, R=Routine, QRSW=Quarterly Receiving Water

| | | |
|---|---|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/2023 1252 Company: H.A | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/23 1730 Company: EC | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 | Sample Integrity: (Check) Intact: _____ On Ice: _____ |
| Relinquished By: _____ Date/Time: _____ Company: _____ | Received By: _____ Date/Time: _____ | Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <input checked="" type="checkbox"/> |

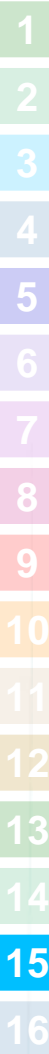
ICOC No:
570-334300

Containers

| <u>Count</u> | <u>Container Type</u> | <u>Preservative</u> |
|--------------|-----------------------------|---------------------|
| 3 | Voa Vial 40ml - unpreserved | None |

Subcontract Method Instructions

| Sample IDs | Method | Method Description | Method Comments |
|------------|-------------|-----------------------------|---------------------------------|
| 1 | SUBCONTRACT | SUB (VOCs-2CVE only (E624)) | Level IV package, MDL, EQUIS 5C |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165901-2

Login Number: 165901

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165901-2

Login Number: 165901

List Number: 2

Creator: Hemphill, Alexis N

List Source: Eurofins Sacramento

List Creation: 12/27/23 03:10 PM

| Question | Answer | Comment |
|---|--------|------------------------------------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.2 C, 1.3 C |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | True | |

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 2/1/2024 7:55:42 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 002 - Comp

JOB NUMBER

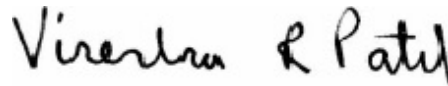
570-165901-3

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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2/1/2024 7:55:42 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-3

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-3

Job ID: 570-165901-3

Eurofins Calscience

Job Narrative 570-165901-3

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6° C, 2.2° C and 2.4° C.

Lab Admin

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work

Method Weck- 525.2 - Diazinon and Chlorpyrifos (ug/L units): This method was subcontracted to Weck Laboratories, Inc. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.



Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-3

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Calscience

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-3

| Method | Method Description | Protocol | Laboratory |
|-------------|--|----------|------------|
| Subcontract | Weck- 525.2 - Diazinon and Chlorpyrifos (ug/L units) | None | Weck Lab |

Protocol References:

None = None

Laboratory References:

Weck Lab = Weck Laboratories, Inc., 14859 East Clark Avenue, City of Industry, CA 917451396



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-3

| <u>Lab Sample ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Collected</u> | <u>Received</u> |
|----------------------|--------------------------|---------------|------------------|-----------------|
| 570-165901-1 | Outfall002_20231222_Comp | Water | 12/22/23 07:45 | 12/22/23 17:30 |

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Work Orders: 3L27026

Project: 570-165901-3

Attn: Virendra Patel

Client: Eurofins Environment Testing Southwest, LLC
2841 Dow Avenue, Suite 100
Tustin, CA 92780

Report Date: 1/17/2024

Received Date: 12/27/2023

Turnaround Time: Normal

Phones: (949) 261-1022

Fax: (949) 260-3297

P.O. #: 570-165901-3

Billing Code:

Dear Virendra Patel,

Enclosed are the results of analyses for samples received 12/27/23 with the Chain-of-Custody document. The samples were received in good condition, at 1.1 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample: Outfall002_20231222_Comp (570-165901-1)

Sampled: 12/22/23 7:45 by Client

3L27026-01 (Water)

| Analyte | Result | MDL | MRL | Units | Dil | Analyzed | Qualifier |
|-----------------------------|--------|-----------------------------------|----------------------|-----------|---------------------------------|----------|---------------------|
| Method: EPA 525.2M | | | Instr: GCMS13 | | | | |
| Batch ID: W3L2083 | | Preparation: EPA 525.2/SPE | | | Prepared: 12/28/23 08:07 | | Analyst: ajc |
| Chlorpyrifos | ND | 4.0 | 10 | ng/l | 1 | 01/06/24 | |
| Diazinon | ND | 3.4 | 10 | ng/l | 1 | 01/06/24 | |
| <i>Surrogate(s)</i> | | | | | | | |
| 1,3-Dimethyl-2-nitrobenzene | 92% | | 50-141 | Conc: 461 | | 01/06/24 | |
| Triphenyl phosphate | 125% | | 63-200 | Conc: 625 | | 01/06/24 | |

Quality Control Results

Semivolatile Organics - Low Level by Tandem GC/MS/MS

| Analyte | Result | MDL | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Qualifier |
|-----------------------------|--------|-----|-----|-------|--|---------------|------|-------------|-----|-----------|-----------|
| Blank (W3L2083-BLK1) | | | | | Prepared: 12/28/23 Analyzed: 01/06/24 | | | | | | |
| Azinphos methyl (Guthion) | ND | 5.3 | 10 | ng/l | | | | | | | |
| Bolstar | ND | 2.7 | 10 | ng/l | | | | | | | |
| Chlorpyrifos | ND | 4.0 | 10 | ng/l | | | | | | | |
| Coumaphos | ND | 2.4 | 10 | ng/l | | | | | | | |
| Demeton-o | ND | 1.9 | 10 | ng/l | | | | | | | |
| Demeton-s | ND | 1.4 | 10 | ng/l | | | | | | | |
| Diazinon | ND | 3.4 | 10 | ng/l | | | | | | | |
| Dichlorvos | ND | 2.6 | 10 | ng/l | | | | | | | |
| Dimethoate | ND | 8.9 | 10 | ng/l | | | | | | | |
| Disulfoton | ND | 3.5 | 10 | ng/l | | | | | | | |
| Ethoprop | ND | 3.2 | 10 | ng/l | | | | | | | |
| Ethyl parathion | ND | 2.2 | 10 | ng/l | | | | | | | |
| Fensulfothion | ND | 8.6 | 10 | ng/l | | | | | | | |
| Fenthion | ND | 2.1 | 10 | ng/l | | | | | | | |
| Malathion | ND | 2.1 | 10 | ng/l | | | | | | | |
| Merphos | ND | 5.5 | 10 | ng/l | | | | | | | |
| Methyl parathion | ND | 3.1 | 10 | ng/l | | | | | | | |
| Mevinphos | ND | 4.2 | 10 | ng/l | | | | | | | |
| Naled | ND | 3.2 | 10 | ng/l | | | | | | | |
| Phorate | ND | 3.4 | 10 | ng/l | | | | | | | |
| Ronnel | ND | 3.6 | 10 | ng/l | | | | | | | |
| Stirophos | ND | 2.4 | 10 | ng/l | | | | | | | |
| Tokuthion (Prothiofos) | ND | 2.2 | 10 | ng/l | | | | | | | |
| Trichloronate | ND | 3.7 | 10 | ng/l | | | | | | | |
| <i>Surrogate(s)</i> | | | | | | | | | | | |
| 1,3-Dimethyl-2-nitrobenzene | 410 | | | ng/l | 500 | | 82 | 50-141 | | | |
| Triphenyl phosphate | 740 | | | ng/l | 500 | | 148 | 63-200 | | | |
| LCS (W3L2083-BS1) | | | | | Prepared: 12/28/23 Analyzed: 01/06/24 | | | | | | |
| Azinphos methyl (Guthion) | 70.1 | 5.3 | 10 | ng/l | 50.0 | | 140 | 10-200 | | | |
| Bolstar | 56.9 | 2.7 | 10 | ng/l | 50.0 | | 114 | 33-154 | | | |
| Chlorpyrifos | 49.7 | 4.0 | 10 | ng/l | 50.0 | | 99 | 63-145 | | | |
| Coumaphos | 67.3 | 2.4 | 10 | ng/l | 50.0 | | 135 | 25-200 | | | |
| Demeton-o | 6.54 | 1.9 | 10 | ng/l | 12.5 | | 52 | 10-122 | | | J |
| Demeton-s | 32.9 | 1.4 | 10 | ng/l | 37.5 | | 88 | 22-158 | | | |
| Diazinon | 35.1 | 3.4 | 10 | ng/l | 50.0 | | 70 | 25-180 | | | |
| Dichlorvos | 40.7 | 2.6 | 10 | ng/l | 50.0 | | 81 | 33-127 | | | |
| Dimethoate | 49.3 | 8.9 | 10 | ng/l | 50.0 | | 99 | 10-200 | | | |
| Disulfoton | 43.6 | 3.5 | 10 | ng/l | 50.0 | | 87 | 29-140 | | | |
| Ethoprop | 37.7 | 3.2 | 10 | ng/l | 50.0 | | 75 | 52-177 | | | |
| Ethyl parathion | 61.2 | 2.2 | 10 | ng/l | 50.0 | | 122 | 48-158 | | | |
| Fensulfothion | 40.3 | 8.6 | 10 | ng/l | 50.0 | | 81 | 10-200 | | | |
| Fenthion | 45.9 | 2.1 | 10 | ng/l | 50.0 | | 92 | 52-166 | | | |
| Malathion | 52.7 | 2.1 | 10 | ng/l | 50.0 | | 105 | 56-200 | | | |

Quality Control Results

(Continued)

Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

| Analyte | Result | MDL | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Qualifier |
|-------------------------------|--------|-----|-----|-------|--|---------------|------|-------------|-----|-----------|-----------|
| LCS (W3L2083-BS1) | | | | | Prepared: 12/28/23 Analyzed: 01/06/24 | | | | | | |
| Merphos | 53.6 | 5.5 | 10 | ng/l | 50.0 | | 107 | 21-200 | | | |
| Methyl parathion | 62.6 | 3.1 | 10 | ng/l | 50.0 | | 125 | 55-156 | | | |
| Mevinphos | 38.7 | 4.2 | 10 | ng/l | 50.0 | | 77 | 13-182 | | | |
| Naled | 7.89 | 3.2 | 10 | ng/l | 50.0 | | 16 | 10-200 | | | J |
| Phorate | 43.5 | 3.4 | 10 | ng/l | 50.0 | | 87 | 58-135 | | | |
| Ronnel | 45.7 | 3.6 | 10 | ng/l | 50.0 | | 91 | 63-129 | | | |
| Stirophos | 63.5 | 2.4 | 10 | ng/l | 50.0 | | 127 | 10-200 | | | |
| Tokuthion (Prothiofos) | 55.2 | 2.2 | 10 | ng/l | 50.0 | | 110 | 64-145 | | | |
| Trichloronate | 45.3 | 3.7 | 10 | ng/l | 50.0 | | 91 | 62-141 | | | |
| <i>Surrogate(s)</i> | | | | | | | | | | | |
| 1,3-Dimethyl-2-nitrobenzene | 330 | | | ng/l | 500 | | 66 | 50-141 | | | |
| Triphenyl phosphate | 724 | | | ng/l | 500 | | 145 | 63-200 | | | |
| LCS Dup (W3L2083-BSD1) | | | | | Prepared: 12/28/23 Analyzed: 01/06/24 | | | | | | |
| Azinphos methyl (Guthion) | 60.4 | 5.3 | 10 | ng/l | 50.0 | | 121 | 10-200 | 15 | 30 | |
| Bolstar | 55.2 | 2.7 | 10 | ng/l | 50.0 | | 110 | 33-154 | 3 | 30 | |
| Chlorpyrifos | 53.6 | 4.0 | 10 | ng/l | 50.0 | | 107 | 63-145 | 8 | 30 | |
| Coumaphos | 57.9 | 2.4 | 10 | ng/l | 50.0 | | 116 | 25-200 | 15 | 30 | |
| Demeton-o | 6.30 | 1.9 | 10 | ng/l | 12.5 | | 50 | 10-122 | 4 | 30 | J |
| Demeton-s | 35.7 | 1.4 | 10 | ng/l | 37.5 | | 95 | 22-158 | 8 | 30 | |
| Diazinon | 39.1 | 3.4 | 10 | ng/l | 50.0 | | 78 | 25-180 | 11 | 30 | |
| Dichlorvos | 39.7 | 2.6 | 10 | ng/l | 50.0 | | 79 | 33-127 | 2 | 30 | |
| Dimethoate | 51.0 | 8.9 | 10 | ng/l | 50.0 | | 102 | 10-200 | 4 | 30 | |
| Disulfoton | 46.2 | 3.5 | 10 | ng/l | 50.0 | | 92 | 29-140 | 6 | 30 | |
| Ethoprop | 41.2 | 3.2 | 10 | ng/l | 50.0 | | 82 | 52-177 | 9 | 30 | |
| Ethyl parathion | 64.6 | 2.2 | 10 | ng/l | 50.0 | | 129 | 48-158 | 5 | 30 | |
| Fensulfothion | 36.1 | 8.6 | 10 | ng/l | 50.0 | | 72 | 10-200 | 11 | 30 | |
| Fenthion | 49.2 | 2.1 | 10 | ng/l | 50.0 | | 98 | 52-166 | 7 | 30 | |
| Malathion | 55.8 | 2.1 | 10 | ng/l | 50.0 | | 112 | 56-200 | 6 | 30 | |
| Merphos | 47.7 | 5.5 | 10 | ng/l | 50.0 | | 95 | 21-200 | 12 | 30 | |
| Methyl parathion | 64.1 | 3.1 | 10 | ng/l | 50.0 | | 128 | 55-156 | 2 | 30 | |
| Mevinphos | 40.5 | 4.2 | 10 | ng/l | 50.0 | | 81 | 13-182 | 5 | 30 | |
| Naled | 7.94 | 3.2 | 10 | ng/l | 50.0 | | 16 | 10-200 | 0.6 | 30 | J |
| Phorate | 43.0 | 3.4 | 10 | ng/l | 50.0 | | 86 | 58-135 | 1 | 30 | |
| Ronnel | 49.3 | 3.6 | 10 | ng/l | 50.0 | | 99 | 63-129 | 8 | 30 | |
| Stirophos | 58.0 | 2.4 | 10 | ng/l | 50.0 | | 116 | 10-200 | 9 | 30 | |
| Tokuthion (Prothiofos) | 56.4 | 2.2 | 10 | ng/l | 50.0 | | 113 | 64-145 | 2 | 30 | |
| Trichloronate | 48.4 | 3.7 | 10 | ng/l | 50.0 | | 97 | 62-141 | 7 | 30 | |
| <i>Surrogate(s)</i> | | | | | | | | | | | |
| 1,3-Dimethyl-2-nitrobenzene | 387 | | | ng/l | 500 | | 77 | 50-141 | | | |
| Triphenyl phosphate | 580 | | | ng/l | 500 | | 116 | 63-200 | | | |

Notes and Definitions

| Item | Definition |
|------|--|
| J | Estimated conc. detected <MRL and >MDL. |
| %REC | Percent Recovery |
| Dil | Dilution |
| MDL | Method Detection Limit |
| MRL | The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) |
| ND | NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL. |
| RPD | Relative Percent Difference |

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

Reviewed by:



Ryan J. Gasio
Project Manager



ELAP-CA #1132 • EPA-UCMR #CA00211 • LACSD #10143

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

3127016

3127016

ICOC No:
570-334300

Containers

| <u>Count</u> | <u>Container Type</u> | <u>Preservative</u> |
|--------------|-----------------------------|---------------------|
| 3 | Voa Vial 40ml - unpreserved | None |

Subcontract Method Instructions

| Sample IDs | Method | Method Description | Method Comments |
|------------|-------------|-----------------------------|---------------------------------|
| 1 | SUBCONTRACT | SUB (VOCs-2CVE only (E624)) | Level IV package, MDL, EQUIS 5C |





WECK LABORATORIES, INC.

Sample Receipt Checklist

Week WKO: **3L27026**

Date/Time Received: **12/27/23 @ 09:40**

WKO Logged by: **Jerico Bolotano**

of Samples: **01**

Samples Checked by: **Jerico Bolotano**

Delivered by: **Fedex**

| Task | Yes | No | N/A | Comments |
|---|-------------------------------------|-------------------------------------|-------------------------------------|--|
| COC present at receipt? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| COC properly completed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| COC matches sample labels? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Project Manager notified about COC discrepancy? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Sample Temperature | | 1.1°C | | |
| Samples received on ice? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Ice Type (Blue/Wet) | | Wet | | |
| All samples intact? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Samples in proper containers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Sufficient sample volume? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Samples intact? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Received within holding time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Project Manager notified about receipt info? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Sample labels checked for correct preservation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| VOC Headspace: (No) none, If Yes (see comment) 524.2, 524.3, 624.1, 8260, 1666 P/T, LUFT | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <6mm/Pea Size? |
| pH verified upon receipt? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | pH paper Lot# |
| Metals <2; H2SO4 pres tests <2; 522<4; TOC <2; 508.1, 525.2<2, 6710B<2, 608.3 5-9 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> CI Test Strip Lot# 11032201 |
| Free Chlorine Tested <0.1 (Organics Analyses) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| O&G pH <2 verified? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | pH paper tot# |
| pH adjusted for O&G | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | pH Reading: |
| Project Manager notified about sample preservation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Acid Lot# |
| | | | | Amt added: |

PM Comments

Sample Receipt-Checklist Completed by:

Signature: *Jerico Bolotano*

Date: **12/27/23**



Chain of Custody Record



| | | | | | |
|---|--------------------------|---|---|------------------------------|---|
| Client Information (Sub Contract Lab) | | Sampler: | Lab P.M: | Carrier Tracking No(s): | COC No: |
| Client Contact: Shipping/Receiving | | Patel, Virendra | Patel, Virendra | 570-334300.1 | 570-334300.1 |
| Company: Weck Laboratories, Inc. | | E-Mail: Virendra.Patel@eurofins.com | State of Origin: California | Page: Page 1 of 1 | Job #: 570-165901-3 |
| Address: 14859 East Clark Avenue, City: City of Industry State, Zip: CA, 917451396 Phone: Email: | | Accreditations Required (See note): State - California, State Program - California | | | |
| Project Name: Boeing NPDES SSFL - Outfall 002 - Comp Site: | | Due Date Requested: 1/10/2024 TAT Requested (days): | Preservation Codes: A - HCL M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) Other: | | |
| PO #: | WO #: | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=wastefoil, BT=tissue, A=Air) |
| Project #: 57013187 SSOW#: | Sample Date: 12/22/23 | Sample Time: 07:45 Pacific | Sample Type: Water | Matrix: Water | Field Filtered Sample (Yes or No) |
| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type | Matrix | Perform MS/MSD (Yes or No) |
| Outfall002_20231222_Comp (570-165901-1) | 12/22/23 | 07:45 Pacific | Water | Water | Sub (MOCs-2CFE only (F2A)) |
| | | | | | Sub (Weck-525.2 - Diazinon and Chlorpyrifos (ug/L units)) |
| | | | | | Total Number of containers |
| | | | | | Special Instructions/Note: See Attached Instructions |

**EPA 624.1 (2CEVE) -
 Cancelled per client
 request on 12/27/2023.
 - Virendra (EC)**

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/reagents/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____
 Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: _____ Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: _____
 Δ Yes Δ No

CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | | | | | | | | ANALYSIS REQUIRED | | | | | | | | | | | | | | Comments | | | | | |
|---|--------------------------------|--------------------|---------------|-----------------|------------|--------------------------------|----------|--------|---|-----------------------------------|--|-------------------------------------|--|---------------------------------|-----------------------|-------------------|------------------|---|--|--|--|------------------------|----------|----------------------------|--|-----------------------------------|---|--|
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | | | | | | | | Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 002 Comp | | | | | | | | | | | | | | | | | | | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | | | | | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | | | | | | | | |
| Sampler: Mark Dominick | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Recoverable Metals: (E200.8): Zn (E200.8); Cu, Pb, Cd, Se | TCDD (and all congeners) (E1613B) | BOD5 (20 degrees C) (E405.1 (SM6510B_BODCalc)) | Surfactants (MBAS) (SM6540C/E425.1) | Cl-, SO4-, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2 (SM2540D)) | Ammonia-N (350.2) | alpha-BHC (E608) | 2,4,6 TCP, 2,4 Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E625) | Total Recoverable Metals: Mercury (C645-1) | Total Recoverable Metals: (E200.8): Mn, Fe | VOCs - 2CVI only (E624) West Labs in Hacienda Heights, CA | VOCs - A+A only (E624) | | | | | | |
| Outfall 002 | Outfall002_20231222_Comp | 12/22/2023 0745 | WM | 500 mL Poly | 1 | HNO ₃ | 90 | Yes | X | | | | | | | | | | | X | | | | Outfall 001 analyze for Fe | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | X | | | | | | | | | | | X | | | | | Outfall 011 analyze for Mn and Fe | | |
| | | | WM | 1L Poly | 1 | None | 115 | No | | | X | | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | X | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | X | | | | | | | | | | | | | | 48 hours Holding Time NO ₃ & NO ₂ | |
| | | | WM | 500 mL Poly | 1 | None | 150 | No | | | | | | X | | | | | | | | | | | | | 48 hours Holding Time for Turbidity | |
| | | | WM | 500 mL Poly | 1 | H ₂ SO ₄ | 160 | No | | | | | | | | | | X | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | | X | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | | X | | | | | | |
| | | | WM | 1L Poly | 1 | None | 185 | No | | | | | | | | | X | | | | | | | | | | | |
| 2 | Outfall002_20231222_Comp_Extra | 12/22/2023 0745 | WM | 40 mL VOA | 3 | None | 55 | No | | | | | | | | | | | | | X | | | | | | | |
| | | | WM | 40 mL VOA | 3 | None | 55 | No | | | | | | | | | | | | | | | X | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | | | H | | | | | | | | | | | | | | Hold | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | | H | | | | | | | | | | | | | Hold | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | H | | | | | | | | | | | | Hold | | |
| WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | | H | | | | | | | Hold | | | | |
| WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | H | | | | | | Hold | | | | |

Legend: C=Conditional, EP=Expert Panel, R=Routine

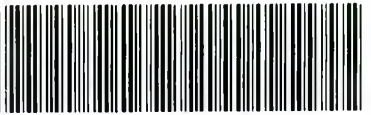
Relinquished By: *Mark Dominick* Date/Time: 12-22-2023/1252 Company: H&A

Relinquished By: *EC* Date/Time: 12/22/23 1730 Company: EC

Received By: *[Signature]* Date/Time: 12/22/23 1252 EC

Received By: *[Signature]* Date/Time: 12/22/23 1730

Turn-around time: (Check)
 24 Hour: _____ 72 Hour: _____ 10 Day: X
 48 Hour: _____ 5 Day: _____ Normal: _____



570-165901 Chain of Custody

2.0/2.4 1.2/1.6 1-8/2.2 5.0/4

CHAIN OF CUSTODY FORM

| Client Name/Address: | | Project: | | | | | | | ANALYSIS REQUIRED | | | | | | | | | | Comments | | |
|--|----------------------------|---|---------------|--------------------|------------|------------------|----------|--------|---|--------------------------------|--|---|--|---|---|---|--|---|--|--|--|
| Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 002 Comp | | | | | | | Total Dissolved Metals: (E200.8); Zn, Pb, Cd, Se Cyanide (SM4500-CN-E / E335.2) Gross Alpha (E900.0); Gross Beta (E900.0); Tritium (H-3) (E908.0); Sr-90 (E905.0); Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0); Uranium (E908.0); K-40; CS-137 (E901.0 or E901.1) Chronic Toxicity - Carcinogens (EPA-661-P-004-013); ABC Labs in Ventura, CA Total Dissolved Metals: Mercury (E245.1) Pesticides: Chlordane, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Dieldrin, Toxaphene + PCBs only (E808) Total Recoverable Metals: Hardness as CaCO3 Total Dissolved Metals: Hardness as CaCO3 Total Dissolved Metals: (E200.8); Mn, Fe Chlorpyrifos & Diazinon (E525.2) Weck Labs in Hacienda Heights, CA | | | | | | | | | | | | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs with Barical Services Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | | | | | | | | | | | | | | | | |
| Sampler: Mark Dominick | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Dissolved Metals: (E200.8); Zn, Pb, Cd, Se | Cyanide (SM4500-CN-E / E335.2) | Gross Alpha (E900.0); Gross Beta (E900.0); Tritium (H-3) (E908.0); Sr-90 (E905.0); Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0); Uranium (E908.0); K-40; CS-137 (E901.0 or E901.1) | Chronic Toxicity - Carcinogens (EPA-661-P-004-013); ABC Labs in Ventura, CA | Total Dissolved Metals: Mercury (E245.1) | Pesticides: Chlordane, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Dieldrin, Toxaphene + PCBs only (E808) | Total Recoverable Metals: Hardness as CaCO3 | Total Dissolved Metals: Hardness as CaCO3 | Total Dissolved Metals: (E200.8); Mn, Fe | Chlorpyrifos & Diazinon (E525.2) Weck Labs in Hacienda Heights, CA | Comments | | |
| Outfall 002 | Outfall002_20231222_Comp_F | 12/22/2023 10745 | WM | 1 L Poly | 1 | None | 190 | Yes | X | | | | | | | | | | Filter and preserve w/in 24hrs of receipt at lab | | |
| | | | WM | 500 mL Poly | 1 | HNO ₃ | 80 | No | | | | | | | | X | | | | | |
| | | | WM | 1L Poly | 1 | None | 200 | No | | X | | | | | | | | | | | Filter and preserve w/in 24hrs of receipt at lab. Outfall 001 analyze for Fe |
| | | | WM | 1 L Glass Amber | 2 | None | 250 | No | | | | | | | X | | | | | | Chlordane, DDD, DDE, DDT, dieldrin, PCBs, toxaphene at OF001, 002, 011, or 018 |
| | | | WM | borosilicate vials | 2 | None | 320 | No | | | | X | | | | | | | | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures |
| | Outfall002_20231222_Comp | 12/22/2023 10745 | WM | 500 mL Poly | 1 | NaOH | 220 | No | | X | | | | | | | | | | | |
| | | | WM | 2.5 Gal Cube | 1 | None | 225 | No | | | | X | | | | | | | | | Unfiltered and unpreserved analysis. Separate RAD onto another workorder. Analyze duplicate, not MS/MSD. |
| | | | WM | 1 L Glass Amber | 1 | None | 230 | No | | | | | | | | | | | | | Only test if first or second rain events of the year. Deliver to ABC Labs in Ventura, CA. |
| | | | WM | 1 Gal Cube | 1 | None | 235 | No | | | | | X | | | | | | | | |
| | | | WM | 1L Glass Amber | 2 | None | 250 | No | | | | | | | | | | | X | | Extract within 24-hours of sampling at Weck Labs |

Legend: C=Conditional, EP=Expert Panel, R=Routine, QRSW=Quarterly Receiving Water

| | | |
|---|---|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/2023 1252 Company: H.A | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/23 1730 Company: EC | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 | Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <input checked="" type="checkbox"/> |

Chain of Custody Record



Client Information (Sub Contract Lab)
 Client Contact: Patel, Virendra
 Shipping/Receiving: Virendra.Patel@eurofins.com
 Company: Eurofins Environment Testing Northern Ca
 Address: 880 Riverside Parkway
 City: West Sacramento
 State, Zip: CA, 95605
 Phone: 916-373-5600(Tel) 916-372-1059(Fax)
 Email:
 Project Name: Boeing NPDES SSFL Outfall 002 Comp
 Site: SSOW#:

Sampler: Patel, Virendra
Lab PM: Patel, Virendra
Phone: Virendra.Patel@eurofins.com
E-Mail:
Due Date Requested: 1/16/2024
TAT Requested (days):
PO #:
WO #:
Project #: 57013187
SSOW#:

State of Origin: California
Accreditations Required (See note): State California: State Program California

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (Water, Solid, Oil, Other) | Preservation Code: | Field Filtered Sample (Yes or No) | | Perform MS/MSD (Yes or No) | | Tota (Hold) | | Analysis Requested | | Special Instructions/Note: |
|---|-------------|---------------|------------------------------|-----------------------------------|--------------------|-----------------------------------|----------------|--|--|--------------------|--------------------|--------------------|--|--|
| | | | | | | Field Filtered | Perform MS/MSD | 1613B/1613B Sox Sep P (MOD) Standard List w/ | 1613B/1613B Sox Sep P (MOD) Standard List w/ | Analysis Requested | Analysis Requested | | | |
| Outfall002_20231222_Comp (570-165901-1) | 12/22/23 | 07:45 Pacific | Water | Water | | X | X | | | | | | | See QAS: Boeig_wiu to zero, ug/L, Use Boeig glassware. |
| Outfall002_20231222_Comp_Extra (570-165901-2) | 12/22/23 | 07:45 Pacific | Water | Water | | X | X | | | | | | | See QAS: Boeig_wiu to zero, ug/L, Use Boeig glassware. |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Preservation Codes:
 A HCL
 B NaOH
 C Zn Acetate
 D Nitric Acid
 E NaHSO4
 F MeOH
 G Anchlor
 H Ascorbic Acid
 I Ice
 J DI Water
 K EDTA
 L EDA
 Other:
 M Hexane
 N None
 O AsNaO2
 P Na2OAS
 Q Na2SO3
 R Na2SO4
 S H2SO4
 T TSP Dodecylhydrate
 U Acetone
 V MCAA
 W pH 4.5
 X Trizma
 Z other (specify)

Special Instructions/Note:
 1 See QAS: Boeig_wiu to zero, ug/L, Use Boeig glassware.
 2 See QAS: Boeig_wiu to zero, ug/L, Use Boeig glassware.

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2
 Empty Kit-Relinquished by: _____
 Relinquished by: [Signature]
 Relinquished by: _____
 Relinquished by: _____
 Custody Seals Intact: Custody Seal No.
 Δ Yes Δ No

Received by: _____
Date/Time: 12/26/23 1400
Company: [Signature]
 Received by: _____
Date/Time:
Company:
 Received by: _____
Date/Time:
Company:

Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record



- 1
2
3
4
5
6
7
8
9
10

Client Information (Sub Contract Lab), Client Contact, Shipping/Receiving, Company, Address, Due Date Requested, TAT Requested, Analysis Requested, Preservation Codes, Sample Identification - Client ID (Lab ID), Sample Date, Sample Time, Sample Type, Matrix, Field Filtered Sample, Perform MS/MSD, SUB (VOCs-2CVE only), SUB (Weck- 525.2 - Diazinon and Chlorpyrifos), Total Number of containers, Special Instructions/Note, Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. Possible Hazard Identification, Sample Disposal, Deliverable Requested, Primary Deliverable Rank, Empty Kit Relinquished by, Date, Time, Method of Shipment, Relinquished by, Date/Time, Company, Received by, Date/Time, Company, Custody Seals Intact, Custody Seal No., Cooler Temperature(s) °C and Other Remarks.

ICOC No:
570-334300

Containers

| <u>Count</u> | <u>Container Type</u> | <u>Preservative</u> |
|--------------|-----------------------------|---------------------|
| 3 | Voa Vial 40ml - unpreserved | None |

Subcontract Method Instructions

| Sample IDs | Method | Method Description | Method Comments |
|------------|-------------|-----------------------------|---------------------------------|
| 1 | SUBCONTRACT | SUB (VOCs-2CVE only (E624)) | Level IV package, MDL, EQUIS 5C |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165901-3

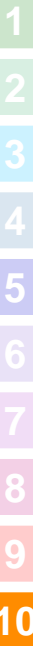
Login Number: 165901

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/28/2024 1:46:23 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 002 - Comp

JOB NUMBER

570-165901-4

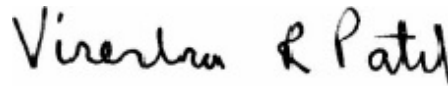
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Job Notes

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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Qualifiers

Rad

| Qualifier | Qualifier Description |
|-----------|--|
| G | The Sample MDC is greater than the requested RL. |
| U | Result is less than the sample detection limit. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Job ID: 570-165901-4

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Job Narrative 570-165901-4

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6° C, 2.2° C and 2.4° C.

Receipt Exceptions

The reference method requires samples to have a pH of <2. The following samples were received with a pH of 7 :

Outfall009_20231222_Comp (570-165899-1), Outfall009_20231222_Comp (570-165899-1[MS]), Outfall009_20231222_Comp (570-165899-1[MSD]), Outfall009_20231222_Comp_F (570-165899-2), Outfall009_20231222_Comp_F (570-165899-2[MS]), Outfall009_20231222_Comp_F (570-165899-2[MSD]), Outfall009_20231222_Comp_Extra (570-165899-3), Outfall002_20231222_Comp (570-165901-1), Outfall002_20231222_Comp (570-165901-1[MS]), Outfall002_20231222_Comp (570-165901-1[MSD]), Outfall002_20231222_Comp_Extra (570-165901-2), Outfall002_20231222_Comp_F (570-165901-3), Outfall002_20231222_Comp_F (570-165901-3[MS]), Outfall002_20231222_Comp_F (570-165901-3[MSD]), Outfall008_20231222_Comp (570-165909-1), Outfall008_20231222_Comp (570-165909-1[MS]), Outfall008_20231222_Comp (570-165909-1[MSD]), Outfall008_20231222_Comp_F (570-165909-2), Outfall008_20231222_Comp_F (570-165909-2[MS]), Outfall008_20231222_Comp_F (570-165909-2[MSD]), Outfall008_20231222_Comp_Extra (570-165909-3), Outfall001_20231222_Comp (570-165916-1), Outfall001_20231222_Comp (570-165916-1[MS]), Outfall001_20231222_Comp (570-165916-1[MSD]), Outfall001_20231222_Comp_Extra (570-165916-2), Outfall001_20231222_Comp_F (570-165916-3), Outfall001_20231222_Comp_F (570-165916-3[MS]) and Outfall001_20231222_Comp_F (570-165916-3[MSD]). The samples were adjusted to the appropriate pH in the laboratory.

RAD

Method 900.0: Gross Alpha/Beta Prep Batch 160-642792:

The gross alpha and/or beta detection goal was not met for the following sample due to a reduction of the sample size attributed to high residual mass: Outfall002_20231222_Comp (570-165901-1). Analytical results are reported with the detection limit achieved.

Method 901.1: Gamma Prep batch 160-642737

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

| Inferred from | Reported to Analyte |
|---------------|---------------------|
| Th-234 | Pa-234 |
| Th-234 | U-238 |
| Pb-210 | Po-210 |
| Pb-210 | Bi-210 |
| Cs-137 | Ba-137m |
| Pb-212 | Po-216 |
| Xe-131m | Xe-131 |
| Sb-125 | Te-125m |
| Ag-108m | Ag-108 |
| Rh-106 | Ru-106 |
| Pb-212 | Th-228 |
| Pb-212 | Ra-224 |
| U-235 | Th-231 |
| Ac-228 | Th-232 |
| Ac-228 | Ra-228 |
| Th-227 | Ra-223 |
| Th-227 | Ac-227 |
| Th-227 | Bi-211 |
| Th-227 | Pb-211 |
| Bi-214 | Ra-226 |

Outfall002_20231222_Comp (570-165901-1), (570-165650-AX-1-B) and (570-165650-AX-1-C DU)

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Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Job ID: 570-165901-4 (Continued)

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Method ExtChrom:

Method Fill_Geo-0:

Method PrecSep_0:

Method PrecSep-21:

Method PrecSep-7:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

No Detections.

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Client Sample ID: Outfall002_20231222_Comp

Date Collected: 12/22/23 07:45

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1

Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Gross Alpha | 8.88 | G | 4.03 | 4.16 | 3.00 | 5.26 | pCi/L | 01/03/24 10:29 | 01/15/24 14:43 | 1 |
| Gross Beta | 4.56 | | 1.34 | 1.41 | 4.00 | 1.62 | pCi/L | 01/03/24 10:29 | 01/15/24 14:43 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: EPA 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Client Sample ID: Outfall002_20231222_Comp
Date Collected: 12/22/23 07:45
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Cesium-137 | -3.58 | U | 9.21 | 9.22 | 20.0 | 11.0 | pCi/L | 01/02/24 14:27 | 01/09/24 06:27 | 1 |
| Potassium-40 | 10.6 | U | 99.1 | 99.1 | | 118 | pCi/L | 01/02/24 14:27 | 01/09/24 06:27 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: EPA 903.0 - Radium-226 (GFPC)

Client Sample ID: Outfall002_20231222_Comp
 Date Collected: 12/22/23 07:45
 Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1
 Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.0467 | U | 0.120 | 0.120 | 1.00 | 0.219 | pCi/L | 01/02/24 11:15 | 01/24/24 14:23 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 81.8 | | 30 - 110 | | | | | 01/02/24 11:15 | 01/24/24 14:23 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: EPA 904.0 - Radium-228 (GFPC)

Client Sample ID: Outfall002_20231222_Comp
Date Collected: 12/22/23 07:45
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.424 | U | 0.476 | 0.478 | 1.00 | 0.779 | pCi/L | 01/02/24 11:18 | 01/18/24 11:41 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 81.8 | | 30 - 110 | | | | | 01/02/24 11:18 | 01/18/24 11:41 | 1 |
| Y Carrier | 79.3 | | 30 - 110 | | | | | 01/02/24 11:18 | 01/18/24 11:41 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: EPA 905 - Strontium-90 (GFPC)

Client Sample ID: Outfall002_20231222_Comp
Date Collected: 12/22/23 07:45
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|---------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Strontium-90 | 0.00257 | U | 0.209 | 0.209 | 3.00 | 0.381 | pCi/L | 01/03/24 10:27 | 01/11/24 15:21 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Sr Carrier | 75.1 | | 30 - 110 | | | | | 01/03/24 10:27 | 01/11/24 15:21 | 1 |
| Y Carrier | 92.0 | | 30 - 110 | | | | | 01/03/24 10:27 | 01/11/24 15:21 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: EPA 906.0 - Tritium, Total (LSC)

Client Sample ID: Outfall002_20231222_Comp
 Date Collected: 12/22/23 07:45
 Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1
 Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----------------------------|-----------------------------|-----|-----|-------|----------------|----------------|---------|
| Tritium | -8.11 | U | 163 | 163 | 500 | 294 | pCi/L | 01/17/24 11:50 | 01/18/24 13:50 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: DOE A-01-R - Isotopic Uranium (Alpha Spectrometry)

Client Sample ID: Outfall002_20231222_Comp
Date Collected: 12/22/23 07:45
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165901-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------------|--------|-----------|-----------------------------|-----------------------------|----------------|---------|-------|----------------|----------------|---------|
| Total Uranium | 1.31 | | 0.526 | 0.532 | 1.00 | 0.289 | pCi/L | 01/09/24 08:25 | 01/22/24 10:08 | 1 |
| Tracer | %Yield | Qualifier | Limits | | | | | | | |
| Uranium-232 | 73.2 | | 30 - 110 | Prepared | Analyzed | Dil Fac | | | | |
| | | | | 01/09/24 08:25 | 01/22/24 10:08 | 1 | | | | |

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Tracer/Carrier Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Ba (30-110) | | | | | | | |
|--------------------|--------------------------|----------------|--|--|--|--|--|--|--|
| 570-165901-1 | Outfall002_20231222_Comp | 81.8 | | | | | | | |
| LCS 160-642708/2-A | Lab Control Sample | 81.3 | | | | | | | |
| MB 160-642708/1-A | Method Blank | 93.3 | | | | | | | |

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Ba (30-110) | Y (30-110) | | | | | | |
|--------------------|--------------------------|----------------|---------------|--|--|--|--|--|--|
| 570-165901-1 | Outfall002_20231222_Comp | 81.8 | 79.3 | | | | | | |
| LCS 160-642709/2-A | Lab Control Sample | 81.3 | 76.3 | | | | | | |
| MB 160-642709/1-A | Method Blank | 93.3 | 83.4 | | | | | | |

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Sr (30-110) | Y (30-110) | | | | | | |
|--------------------|--------------------------|----------------|---------------|--|--|--|--|--|--|
| 570-165901-1 | Outfall002_20231222_Comp | 75.1 | 92.0 | | | | | | |
| LCS 160-642791/2-A | Lab Control Sample | 82.1 | 89.0 | | | | | | |
| MB 160-642791/1-A | Method Blank | 77.1 | 89.7 | | | | | | |

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | U-232 (30-110) | | | | | | | |
|--------------------|--------------------------|-------------------|--|--|--|--|--|--|--|
| 570-165901-1 | Outfall002_20231222_Comp | 73.2 | | | | | | | |
| LCS 160-643475/2-A | Lab Control Sample | 77.5 | | | | | | | |
| MB 160-643475/1-A | Method Blank | 73.3 | | | | | | | |

Tracer/Carrier Legend

U-232 = Uranium-232

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-642792/1-A
 Matrix: Water
 Analysis Batch: 644396

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642792

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------|---------|-----------|-----------------|-----------------|------|-------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Gross Alpha | 0.09493 | U | 0.709 | 0.710 | 3.00 | 1.30 | pCi/L | 01/03/24 10:29 | 01/15/24 13:30 | 1 |
| Gross Beta | -0.1726 | U | 0.484 | 0.485 | 4.00 | 0.899 | pCi/L | 01/03/24 10:29 | 01/15/24 13:30 | 1 |

Lab Sample ID: LCS 160-642792/2-A
 Matrix: Water
 Analysis Batch: 644396

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642792

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|-------------|-------------|------------|----------|-----------------|------|------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Gross Alpha | 49.3 | 53.75 | | 7.98 | 3.00 | 2.71 | pCi/L | 109 | 75 - 125 |

Lab Sample ID: LCSB 160-642792/3-A
 Matrix: Water
 Analysis Batch: 644400

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642792

| Analyte | Spike Added | LCSB Result | LCSB Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|------------|-------------|-------------|-----------|-----------------|------|-------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Gross Beta | 72.1 | 71.21 | | 7.65 | 4.00 | 0.944 | pCi/L | 99 | 75 - 125 |

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-642737/1-A
 Matrix: Water
 Analysis Batch: 642931

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642737

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------|-----------------|------|------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Cesium-137 | 2.641 | U | 13.3 | 13.3 | 20.0 | 17.2 | pCi/L | 01/02/24 14:27 | 01/04/24 09:22 | 1 |
| Potassium-40 | 4.248 | U | 105 | 105 | | 201 | pCi/L | 01/02/24 14:27 | 01/04/24 09:22 | 1 |

Lab Sample ID: LCS 160-642737/2-A
 Matrix: Water
 Analysis Batch: 643039

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642737

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|---------------|-------------|------------|----------|-----------------|------|------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Americium-241 | 135000 | 143000 | | 17000 | | 444 | pCi/L | 106 | 75 - 125 |
| Cesium-137 | 40100 | 41770 | | 4980 | 20.0 | 107 | pCi/L | 104 | 75 - 125 |
| Cobalt-60 | 16100 | 16940 | | 2020 | | 66.3 | pCi/L | 105 | 75 - 125 |

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-642708/1-A
 Matrix: Water
 Analysis Batch: 645440

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642708

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|---------|-----------|-----------------|-----------------|------|-------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Radium-226 | 0.04628 | U | 0.0759 | 0.0760 | 1.00 | 0.132 | pCi/L | 01/02/24 11:15 | 01/24/24 14:22 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-642708/1-A
 Matrix: Water
 Analysis Batch: 645440

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642708

| Carrier | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------|--------------|-----------------|----------|----------------|----------------|---------|
| Ba Carrier | 93.3 | | 30 - 110 | 01/02/24 11:15 | 01/24/24 14:22 | 1 |

Lab Sample ID: LCS 160-642708/2-A
 Matrix: Water
 Analysis Batch: 645440

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642708

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|------------|----------------|---------------|-------------|-----------------------------|------|-------|-------|------|----------------|
| Radium-226 | 11.3 | 11.41 | | 1.22 | 1.00 | 0.130 | pCi/L | 101 | 75 - 125 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|---------------|------------------|----------|
| Ba Carrier | 81.3 | | 30 - 110 |

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-642709/1-A
 Matrix: Water
 Analysis Batch: 644834

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642709

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------------|-----------------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.07053 | U | 0.245 | 0.245 | 1.00 | 0.445 | pCi/L | 01/02/24 11:18 | 01/18/24 11:40 | 1 |

| Carrier | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------|--------------|-----------------|----------|----------------|----------------|---------|
| Ba Carrier | 93.3 | | 30 - 110 | 01/02/24 11:18 | 01/18/24 11:40 | 1 |
| Y Carrier | 83.4 | | 30 - 110 | 01/02/24 11:18 | 01/18/24 11:40 | 1 |

Lab Sample ID: LCS 160-642709/2-A
 Matrix: Water
 Analysis Batch: 644834

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642709

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|------------|----------------|---------------|-------------|-----------------------------|------|-------|-------|------|----------------|
| Radium-228 | 9.29 | 10.33 | | 1.44 | 1.00 | 0.583 | pCi/L | 111 | 75 - 125 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|---------------|------------------|----------|
| Ba Carrier | 81.3 | | 30 - 110 |
| Y Carrier | 76.3 | | 30 - 110 |

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-642791/1-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642791

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------------|-----------------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Strontium-90 | 0.2084 | U | 0.194 | 0.194 | 3.00 | 0.311 | pCi/L | 01/03/24 10:27 | 01/11/24 15:19 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: MB 160-642791/1-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642791

| Carrier | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|----------|----------------|----------------|---------|
| Sr Carrier | 77.1 | | 30 - 110 | 01/03/24 10:27 | 01/11/24 15:19 | 1 |
| Y Carrier | 89.7 | | 30 - 110 | 01/03/24 10:27 | 01/11/24 15:19 | 1 |

Lab Sample ID: LCS 160-642791/2-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642791

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|--------------|-------------|------------|----------|-----------------------|------|-------|-------|------|-------------|
| Strontium-90 | 7.21 | 7.723 | | 0.842 | 3.00 | 0.278 | pCi/L | 107 | 75 - 125 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|------------|---------------|----------|
| Sr Carrier | 82.1 | | 30 - 110 |
| Y Carrier | 89.0 | | 30 - 110 |

Method: 906.0 - Tritium, Total (LSC)

Lab Sample ID: MB 160-644673/1-A
 Matrix: Water
 Analysis Batch: 644941

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 644673

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-----------------------|-----------------------|-----|-----|-------|----------------|----------------|---------|
| Tritium | -77.93 | U | 158 | 159 | 500 | 301 | pCi/L | 01/17/24 11:50 | 01/18/24 07:26 | 1 |

Lab Sample ID: LCS 160-644673/2-A
 Matrix: Water
 Analysis Batch: 644941

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 644673

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|---------|-------------|------------|----------|-----------------------|-----|-----|-------|------|-------------|
| Tritium | 2000 | 1928 | | 368 | 500 | 323 | pCi/L | 96 | 75 - 125 |

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Lab Sample ID: MB 160-643475/1-A
 Matrix: Water
 Analysis Batch: 645111

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 643475

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------------|-----------|--------------|-----------------------|-----------------------|------|-------|-------|----------------|----------------|---------|
| Total Uranium | 0.08145 | U | 0.1267 | 0.1268 | 1.00 | 0.185 | pCi/L | 01/09/24 08:25 | 01/22/24 10:07 | 1 |

| Tracer | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------|-----------|--------------|----------|----------------|----------------|---------|
| Uranium-232 | 73.3 | | 30 - 110 | 01/09/24 08:25 | 01/22/24 10:07 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Lab Sample ID: LCS 160-643475/2-A
Matrix: Water
Analysis Batch: 645113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 643475

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|-------------|----------------|---------------|-------------|-----------------------------|------|-------|-------|------|----------------|
| Uranium-234 | 12.7 | 13.15 | | 1.58 | 1.00 | 0.139 | pCi/L | 103 | 75 - 125 |
| Uranium-238 | 13.0 | 14.59 | | 1.71 | 1.00 | 0.111 | pCi/L | 112 | 75 - 125 |

| Tracer | LCS %Yield | LCS Qualifier | Limits |
|-------------|---------------|------------------|----------|
| Uranium-232 | 77.5 | | 30 - 110 |



QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Rad

Prep Batch: 642708

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|------------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | PrecSep-21 | |
| MB 160-642708/1-A | Method Blank | Total/NA | Water | PrecSep-21 | |
| LCS 160-642708/2-A | Lab Control Sample | Total/NA | Water | PrecSep-21 | |

Prep Batch: 642709

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | PrecSep_0 | |
| MB 160-642709/1-A | Method Blank | Total/NA | Water | PrecSep_0 | |
| LCS 160-642709/2-A | Lab Control Sample | Total/NA | Water | PrecSep_0 | |

Prep Batch: 642737

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|------------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | Fill_Geo-0 | |
| MB 160-642737/1-A | Method Blank | Total/NA | Water | Fill_Geo-0 | |
| LCS 160-642737/2-A | Lab Control Sample | Total/NA | Water | Fill_Geo-0 | |

Prep Batch: 642791

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | PrecSep-7 | |
| MB 160-642791/1-A | Method Blank | Total/NA | Water | PrecSep-7 | |
| LCS 160-642791/2-A | Lab Control Sample | Total/NA | Water | PrecSep-7 | |

Prep Batch: 642792

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|-------------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | Evaporation | |
| MB 160-642792/1-A | Method Blank | Total/NA | Water | Evaporation | |
| LCS 160-642792/2-A | Lab Control Sample | Total/NA | Water | Evaporation | |
| LCSB 160-642792/3-A | Lab Control Sample | Total/NA | Water | Evaporation | |

Prep Batch: 643475

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | ExtChrom | |
| MB 160-643475/1-A | Method Blank | Total/NA | Water | ExtChrom | |
| LCS 160-643475/2-A | Lab Control Sample | Total/NA | Water | ExtChrom | |

Prep Batch: 644673

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|---------------|------------|
| 570-165901-1 | Outfall002_20231222_Comp | Total/NA | Water | LSC_Dist_Susp | |
| MB 160-644673/1-A | Method Blank | Total/NA | Water | LSC_Dist_Susp | |
| LCS 160-644673/2-A | Lab Control Sample | Total/NA | Water | LSC_Dist_Susp | |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Client Sample ID: Outfall002_20231222_Comp

Lab Sample ID: 570-165901-1

Date Collected: 12/22/23 07:45

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------------|------------|---------------|-----|------------|----------------|--------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | Evaporation | | | 123.99 mL | 1.0 g | 642792 | 01/03/24 10:29 | ASG | EET SL |
| Total/NA | Analysis | 900.0 | | 1 | | | 644329 | 01/15/24 14:43 | FLC | EET SL |
| Instrument ID: GFPCRED | | | | | | | | | | |
| Total/NA | Prep | Fill_Geo-0 | | | 1000 mL | 1.0 g | 642737 | 01/02/24 14:27 | AJP | EET SL |
| Total/NA | Analysis | 901.1 | | 1 | | | 643593 | 01/09/24 06:27 | CAH | EET SL |
| Instrument ID: GAMMAVISION | | | | | | | | | | |
| Total/NA | Prep | PrecSep-21 | | | 746.95 mL | 1.0 g | 642708 | 01/02/24 11:15 | KAC | EET SL |
| Total/NA | Analysis | 903.0 | | 1 | | | 645440 | 01/24/24 14:23 | FLC | EET SL |
| Instrument ID: GFPCBLUE | | | | | | | | | | |
| Total/NA | Prep | PrecSep_0 | | | 746.95 mL | 1.0 g | 642709 | 01/02/24 11:18 | KAC | EET SL |
| Total/NA | Analysis | 904.0 | | 1 | | | 644834 | 01/18/24 11:41 | FLC | EET SL |
| Instrument ID: GFPCORANGE | | | | | | | | | | |
| Total/NA | Prep | PrecSep-7 | | | 752.52 mL | 1.0 g | 642791 | 01/03/24 10:27 | KAC | EET SL |
| Total/NA | Analysis | 905 | | 1 | | | 643958 | 01/11/24 15:21 | CMM | EET SL |
| Instrument ID: GFPCORANGE | | | | | | | | | | |
| Total/NA | Prep | LSC_Dist_Susp | | | 100.00 mL | 1.0 g | 644673 | 01/17/24 11:50 | MST | EET SL |
| Total/NA | Analysis | 906.0 | | 1 | | | 644941 | 01/18/24 13:50 | MLK | EET SL |
| Instrument ID: LSCBROWN | | | | | | | | | | |
| Total/NA | Prep | ExtChrom | | | 250.24 mL | 1.0 mL | 643475 | 01/09/24 08:25 | MLT | EET SL |
| Total/NA | Analysis | A-01-R | | 1 | | | 645119 | 01/22/24 10:08 | FLC | EET SL |
| Instrument ID: ALPHAVISION | | | | | | | | | | |

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|--------------------------|---|----------------------------|-----------------|
| Alaska (UST) | State | 20-001 | 05-06-25 |
| ANAB | Dept. of Defense ELAP | L2305 | 04-06-25 |
| ANAB | Dept. of Energy | L2305.01 | 04-06-25 |
| ANAB | ISO/IEC 17025 | L2305 | 04-06-25 |
| Arizona | State | AZ0813 | 12-08-24 |
| California | Los Angeles County Sanitation Districts | 10259 | 06-30-22 * |
| California | State | 2886 | 06-30-24 |
| Connecticut | State | PH-0241 | 03-31-25 |
| Florida | NELAP | E87689 | 06-30-24 |
| HI - RadChem Recognition | State | n/a | 06-30-24 |
| Illinois | NELAP | 200023 | 11-30-24 |
| Iowa | State | 373 | 12-01-24 |
| Kansas | NELAP | E-10236 | 10-31-24 |
| Kentucky (DW) | State | KY90125 | 12-31-24 |
| Kentucky (WW) | State | KY90125 (Permit KY0004049) | 12-31-24 |
| Louisiana | NELAP | 04080 | 06-30-22 * |
| Louisiana (All) | NELAP | 04080 | 06-30-24 |
| Louisiana (DW) | State | LA011 | 12-31-24 |
| Maryland | State | 310 | 09-30-24 |
| Massachusetts | State | M-MO054 | 06-30-24 |
| MI - RadChem Recognition | State | 9005 | 06-30-24 |
| Missouri | State | 780 | 06-30-25 |
| Nevada | State | MO000542020-1 | 07-31-24 |
| New Jersey | NELAP | MO002 | 06-30-24 |
| New Mexico | State | MO00054 | 06-30-24 |
| New York | NELAP | 11616 | 03-31-24 |
| North Carolina (DW) | State | 29700 | 07-31-24 |
| North Dakota | State | R-207 | 06-30-24 |
| Oklahoma | NELAP | 9997 | 08-31-24 |
| Oregon | NELAP | 4157 | 09-01-24 |
| Pennsylvania | NELAP | 68-00540 | 02-28-24 |
| South Carolina | State | 85002001 | 06-30-24 |
| Texas | NELAP | T104704193 | 07-31-24 |
| US Fish & Wildlife | US Federal Programs | 058448 | 07-31-24 |
| USDA | US Federal Programs | P330-17-00028 | 05-18-26 |
| Utah | NELAP | MO000542021-14 | 07-31-24 |
| Virginia | NELAP | 10310 | 06-15-25 |
| Washington | State | C592 | 08-30-24 |
| West Virginia DEP | State | 381 | 01-31-24 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

| Method | Method Description | Protocol | Laboratory |
|---------------|--|----------|------------|
| 900.0 | Gross Alpha and Gross Beta Radioactivity | EPA | EET SL |
| 901.1 | Cesium 137 & Other Gamma Emitters (GS) | EPA | EET SL |
| 903.0 | Radium-226 (GFPC) | EPA | EET SL |
| 904.0 | Radium-228 (GFPC) | EPA | EET SL |
| 905 | Strontium-90 (GFPC) | EPA | EET SL |
| 906.0 | Tritium, Total (LSC) | EPA | EET SL |
| A-01-R | Isotopic Uranium (Alpha Spectrometry) | DOE | EET SL |
| Evaporation | Preparation, Evaporation | None | EET SL |
| ExtChrom | Preparation, Extraction Chromatography Resin Actinide Separation | None | EET SL |
| Fill_Geo-0 | Fill Geometry, No In-Growth | None | EET SL |
| LSC_Dist_Susp | Distillation and Suspension (LSC) | None | EET SL |
| PrecSep_0 | Preparation, Precipitate Separation | None | EET SL |
| PrecSep-21 | Preparation, Precipitate Separation (21-Day In-Growth) | None | EET SL |
| PrecSep-7 | Preparation, Precipitate Separation (7-Day In-Growth) | None | EET SL |

Protocol References:

DOE = U.S. Department of Energy
EPA = US Environmental Protection Agency
None = None

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-165901-4

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165901-1 | Outfall002_20231222_Comp | Water | 12/22/23 07:45 | 12/22/23 17:30 |

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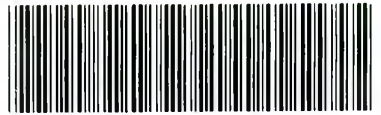
15

CHAIN OF CUSTODY FORM

| | | | | | | | | | | | | | | | | |
|---|---|---|-----------------------------------|--|-------------------------------------|--|---------------------------------|-----------------------|-------------------|------------------|---|--|---|--|------------------------|----------|
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall [001, 002, 011, 018] Outfall 002 Comp | ANALYSIS REQUIRED | | | | | | | | | | | | | | |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | Total Recoverable Metals: (E200.8): Zn (E200.8): Cu, Pb, Cd, Se | TCDD (and all congeners) (E1613B) | BOD5 (20 degrees C) (E405.1 (SM6210B, BODCalc)) | Surfactants (MBAS) (SM6540C/E425.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2 (SM2540D)) | Ammonia-N (350.2) | alpha-BHC (E608) | 2,4,6 TCP, 2,4 Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E625) | Total Recoverable Metals: Mercury (C645-1) | Total Recoverable Metals: (E200.8): Mn, Fe | VOCs - 2CVI only (E624) West Labs in Hacienda Heights, CA | VOCs - A+A only (E624) | Comments |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | | | | | | | | | | | | | | |
| Sampler: Mark Dominick | | | | | | | | | | | | | | | | |

| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Recoverable Metals: (E200.8): Zn (E200.8): Cu, Pb, Cd, Se | TCDD (and all congeners) (E1613B) | BOD5 (20 degrees C) (E405.1 (SM6210B, BODCalc)) | Surfactants (MBAS) (SM6540C/E425.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2 (SM2540D)) | Ammonia-N (350.2) | alpha-BHC (E608) | 2,4,6 TCP, 2,4 Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E625) | Total Recoverable Metals: Mercury (C645-1) | Total Recoverable Metals: (E200.8): Mn, Fe | VOCs - 2CVI only (E624) West Labs in Hacienda Heights, CA | VOCs - A+A only (E624) | Comments | | | | | |
|--------------------|--------------------------------|--------------------|---------------|-----------------|------------|--------------|----------|--------|---|-----------------------------------|--|-------------------------------------|--|---------------------------------|-----------------------|-------------------|------------------|---|--|---|--|------------------------|----------|---|--|------|-------------------------------------|--|
| Outfall 002 | Outfall002_20231222_Comp | 12/22/2023 0745 | WM | 500 mL Poly | 1 | HNO3 | 90 | Yes | X | | | | | | | | | | | X | X | | | Outfall 001 analyze for Fe Outfall 011 analyze for Mn and Fe | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | | X | | | | | | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 115 | No | | | | X | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | | X | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | X | | | | | | | | | | | | | 48 hours Holding Time NO3 & NO2 | |
| | | | WM | 500 mL Poly | 1 | None | 150 | No | | | | | | | X | | | | | | | | | | | | 48 hours Holding Time for Turbidity | |
| | | | WM | 500 mL Poly | 1 | H2SO4 | 160 | No | | | | | | | | | | X | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | | X | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | X | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 185 | No | | | | | | | | | X | | | | | | | | | | | |
| 2 | Outfall002_20231222_Comp_Extra | 12/22/2023 0745 | WM | 40 mL VOA | 3 | None | 55 | No | | | | | | | | | | | | | | X | | | | | | |
| | | | WM | 40 mL VOA | 3 | None | 55 | No | | | | | | | | | | | | | | | | X | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | | | H | | | | | | | | | | | | | | Hold | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | | H | | | | | | | | | | | | | Hold | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | H | | | | | | | | | | | | Hold | | |

Legend: C=Conditional, EP=Expert Panel, R=Routine

| | | |
|---|--|--|
| Relinquished By: <i>Mark Dominick</i> Date/Time: 12-22-2023/1252 Company: H&A | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1252 Company: EC | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <u>X</u> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/23 Company: EC | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 |  |
| Relinquished By: _____ Date/Time: _____ Company: _____ | Received By: _____ Date/Time: _____ | |

2.0/2.4 1.2/1.6 1-8/2.2 5.0/4

570-165901 Chain of Custody

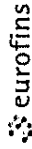
CHAIN OF CUSTODY FORM

| Client Name/Address: | | | | | | | | | ANALYSIS REQUIRED | | | | | | | | | | Comments |
|---|----------------------------|--------------------|---------------|--------------------|------------|------------------|----------|--------|--|--------------------------------|--|--|--|---|---|---|--|---|--|
| Eurofins Calscience Project Manager: Virendra Patel | | | | | | | | | Total Dissolved Metals: (E200.8); Zn, Pb, Cd, Se Cyanide (SM4500-CN-E / E335.2) Gross Alpha (E900.0); Gross Beta (E900.0); Tritium (H-3) (E908.0); Sr-90 (E905.0); Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0); Uranium (E908.0); K-40; CS-137 (E901.0 or E901.1) Chronic Toxicity - Carcinogens (EPA-661-P-04-013); ABC Labs in Ventura, CA Total Dissolved Metals: Mercury (E245.1) Pesticides: Chlordane, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Dieldrin, Toxaphene + PCBs only (E808) Total Recoverable Metals: Hardness as CaCO3 Total Dissolved Metals: Hardness as CaCO3 Total Dissolved Metals: (E200.8); Mn, Fe Chlorpyrifos & Diazinon (E525.2) Week Labs in Hacienda Heights, CA | | | | | | | | | | |
| Project: Boeing-SSFL NPDES Permit 2023 Quarterly Outfall (001, 002, 011, 018) Outfall 002 Comp Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | | | | | | | | |
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs with Binational Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. Sampler: Mark Dominick | | | | | | | | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Dissolved Metals: (E200.8); Zn, Pb, Cd, Se | Cyanide (SM4500-CN-E / E335.2) | Gross Alpha (E900.0); Gross Beta (E900.0); Tritium (H-3) (E908.0); Sr-90 (E905.0); Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0); Uranium (E908.0); K-40; CS-137 (E901.0 or E901.1) | Chronic Toxicity - Carcinogens (EPA-661-P-04-013); ABC Labs in Ventura, CA | Total Dissolved Metals: Mercury (E245.1) | Pesticides: Chlordane, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Dieldrin, Toxaphene + PCBs only (E808) | Total Recoverable Metals: Hardness as CaCO3 | Total Dissolved Metals: Hardness as CaCO3 | Total Dissolved Metals: (E200.8); Mn, Fe | Chlorpyrifos & Diazinon (E525.2) Week Labs in Hacienda Heights, CA | Comments |
| Outfall 002 | Outfall002_20231222_Comp_F | 12/22/2023 | WM | 1 L Poly | 1 | None | 190 | Yes | X | | | | | | | | | | |
| | | | WM | 500 mL Poly | 1 | HNO ₃ | 80 | No | | | | | | | X | | | | |
| | | | WM | 1L Poly | 1 | None | 200 | No | X | | | | | | | | | | Filter and preserve w/in 24hrs of receipt at lab. Outfall 001 analyze for Fe |
| | | | WM | 1 L Glass Amber | 2 | None | 250 | No | | | | | | X | | | | | Chlordane, DDD, DDE, DDT, dieldrin, PCBs, toxaphene at OF001, 002, 011, or 018 |
| | | | WM | borosilicate vials | 2 | None | 320 | No | | | | | X | | | | | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures |
| | Outfall002_20231222_Comp | 12/22/2023 | WM | 500 mL Poly | 1 | NaOH | 220 | No | | X | | | | | | | | | |
| | | | WM | 2.5 Gal Cube | 1 | None | 225 | No | | | X | | | | | | | | Unfiltered and unpreserved analysis. Separate RAD onto another workorder. Analyze duplicate, not MS/MSD. |
| | | | WM | 1 L Glass Amber | 1 | None | 230 | No | | | | | | | | | | | Only test if first or second rain events of the year. Deliver to ABC Labs in Ventura, CA. |
| | | | WM | 1 Gal Cube | 1 | None | 235 | No | | | | X | | | | | | | |
| | | | WM | 1L Glass Amber | 2 | None | 250 | No | | | | | | | | | | X | Extract within 24-hours of sampling at Week Labs |

Legend: C=Conditional, EP=Expert Panel, R=Routine, QRSW=Quarterly Receiving Water

| | | |
|---|--|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/2023 1252 Company: H.A | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> X 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/23 1730 Company: EC | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 | Sample Integrity: (Check) Intact: _____ On Ice: _____ |
| Relinquished By: _____ Date/Time: _____ Company: _____ | Received By: _____ Date/Time: _____ | Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <input checked="" type="checkbox"/> X |

Chain of Custody Record



Environmental Testing



| | | | | | |
|--|--|--|--|--|--|
| Client Information (Sub Contract Lab) | | Lab PM: Patel, Virendra | | Carrier Tracking No(s): 570-334294.1 | |
| Client Contact: Shipping/Receiving | | E-Mail: Virendra.Patel@eurofinsus.com | | Page: Page 1 of 1 | |
| Company: Eurofins Environment Testing Northern Ca | | State: California | | Job #: 570-165901-2 | |
| Address: 880 Riverside Parkway | | City: West Sacramento | | State of Origin: California | |
| State, Zip: CA, 95605 | | PO #: 916-373-5600(Tel) 916-372-1059(Fax) | | Preservation Codes: M Hexane N None O AsNaO2 P Na2OAS Q Na2SO3 R Na2SO4 S H2SO4 T TSP Dodecahydrate U Acetone V MCAA W pH 4-5 X EDTA Y Trizma Z other (specify) Other | |
| Project Name: Boeing NPDES SSFL Outfall 002 Comp | | Project #: 57013187 | | Total Number of Containers | |
| Site: 57013187 | | SSOW#: 57013187 | | Special Instructions/Note: | |
| Due Date Requested: 1/16/2024 | | TAT Requested (days): | | 2 | |
| Sample Date | | Sample Time | | 2 | |
| Sample Date: 12/22/23 | | Sample Time: 07:45 Pacific | | See QAS: Boeig_wiu to zero, ug/L, Use Boeig glassware. | |
| Sample Date: 12/22/23 | | Sample Time: 07:45 Pacific | | See QAS: Boeig_wiu to zero, ug/L, Use Boeig glassware. | |
| Sample Type (C=Comp, G=grab) | | Matrix (W=water, S=solid, O=water/oil, G=Thru, A=Air) | | | |
| Sample Type: C=Comp | | Matrix: Water | | | |
| Sample Type: G=grab | | Matrix: Water | | | |
| Field Filtered Sample (Yes or No) | | Perform MS/MSD (Yes or No) | | | |
| Field Filtered Sample: X | | Perform MS/MSD: X | | | |
| Totals | | Totals (Hold) | | | |
| 1613B/1613B Sox_Sep_P (MOD) Standard List w/ | | 1613B/1613B Sox_Sep_P (MOD) Standard List w/ | | | |
| Analysis Requested | | Special Instructions/Note | | | |
| Accreditations Required (See note): State California; State Program California | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | | | |
| | | Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months | | | |
| Special Instructions/QC Requirements: | | Method of Shipment | | | |
| Deliverable Requested: I II III IV Other (specify) | | Primary Deliverable Rank: 2 | | | |
| Empty Kit-Relinquished by: | | Date: | | | |
| Relinquished by: <i>[Signature]</i> | | Date/Time: 12/26/23 1400 | | Company: <i>[Signature]</i> | |
| Relinquished by: | | Date/Time: | | Company: | |
| Relinquished by: | | Date/Time: | | Company: | |
| Custody Seals Intact: Custody Seal No. | | Cooler Temperature(s) °C and Other Remarks: | | | |
| Δ Yes Δ No | | | | | |

ICOC No:
570-334300

Containers

| <u>Count</u> | <u>Container Type</u> | <u>Preservative</u> |
|--------------|-----------------------------|---------------------|
| 3 | Voa Vial 40ml - unpreserved | None |

Subcontract Method Instructions

| Sample IDs | Method | Method Description | Method Comments |
|------------|-------------|-----------------------------|---------------------------------|
| 1 | SUBCONTRACT | SUB (VOCs-2CVE only (E624)) | Level IV package, MDL, EQUIS 5C |

Chain of Custody Record



| Client Information (Sub Contract Lab) | | Sampler: Patel, Virendra | Carrier Tracking No(s): | GOC No: 570-334697.1 | | | | | | | | | | | |
|--|-------------|--|---|---------------------------------------|-----------------------------------|----------------------------|---|---------------------------------------|------------------------------------|-----------------------------|----------------------------|---------------------------------|------------------------------|----------------------------|----------------------------|
| Client Contact: Shipping/Receiving | | Phone: Virendra.Patel@et.eurofins.com | State of Origin: California | Page: Page 1 of 1 | | | | | | | | | | | |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - California; State Program - California | | | | | | | | | | | | | |
| Address: 13715 Rider Trail North, Earth City, MO 63045 | | Due Date Requested: 1/30/2024 | Job #: 570-165901-4 | | | | | | | | | | | | |
| Phone: 314-298-8566(Tel) 314-298-8757(Fax) | | TAT Requested (days): | Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: | | | | | | | | | | | | |
| Project Name: Boeing NPDES SSFL - Outfall 002 - Comp | | PO #: 57013187 | M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Y - Trizma Z - other (specify) | | | | | | | | | | | | |
| Site: | | SSOW#: | Special Instructions/Note: Boeing SSFL; DO NOT FILTER; use prep date from preservation | | | | | | | | | | | | |
| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (Water, Solid, Overhead, etc.) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 901.1, Cs/Fill, Geo, K-40 and Csium-137 | 401R, UEXtrChrom, Actin Total Uranium | 900.0/Evaporation Gross Alpha/Beta | 903.0/PreSep, 21 Radium-226 | 904.0/PreSep, 0 Radium-228 | 905.5r90/PreSep, 7 Strontium-90 | 906.0/SC, Dist, Susp Tritium | Total Number of Containers | Special Instructions/Note: |
| Outfall002_20231222_Comp (570-165901-1) | 12/22/23 | 07:45 Pacific | | Water | X | X | X | X | X | X | X | X | X | 2 | |

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by: Date: 12/28/23 1233
 Relinquished by: Richard Thornley
 Relinquished by: Date/Time: Company
 Relinquished by: Date/Time: Company
 Custody Seals Intact: Custody Seal No.:
 Δ Yes Δ No

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For Months
 Special Instructions/QC Requirements:
 Method of Shipment: Date: DEC 29 2023
 Received by: Richard Thornley
 Date/Time: Company
 Date/Time: Company
 Date/Time: Company
 Cooler Temperature(s) °C and Other Remarks:
 Ver: 06/08/2021



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165901-4

Login Number: 165901

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165901-4

Login Number: 165901

List Number: 3

Creator: Thornley, Richard W

List Source: Eurofins St. Louis

List Creation: 12/29/23 12:48 PM

| Question | Answer | Comment |
|--|--------|-----------------------------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | N/A | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | sample preserved on arrival |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/6/2024 10:48:18 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 002 - Grab

JOB NUMBER

570-166495-1

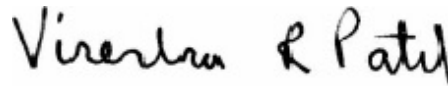
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

Qualifiers

General Chemistry

| Qualifier | Qualifier Description |
|-----------|--|
| BU | Analyzed out of holding time |
| BV | Sample received after holding time expired |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

Job ID: 570-166495-1

Eurofins Calscience

Job Narrative 570-166495-1

Receipt

The samples were received on 1/2/2024 4:51 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.6° C, 0.8° C and 1.1° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method SM 2540F: The following sample was received outside of holding time: Outfall002_20231230_Grab (570-166495-1).

Method SM 2540F: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with analytical batch 570-397721.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

Client Sample ID: Outfall002_20231230_Grab

Lab Sample ID: 570-166495-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|-----|----------|---------|---|----------|-----------|
| Specific Conductance | 1100 | | 1.0 | 1.0 | umhos/cm | 1 | | SM 2510B | Total/NA |

Client Sample ID: TB-20231230

Lab Sample ID: 570-166495-3

No Detections.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Client Sample ID: Outfall002_20231230_Grab

Date Collected: 12/30/23 07:20

Date Received: 01/02/24 16:51

Lab Sample ID: 570-166495-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | ND | | 0.50 | 0.33 | ug/L | | | 01/03/24 16:48 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.15 | ug/L | | | 01/03/24 16:48 | 1 |
| Trichloroethene | ND | | 0.50 | 0.17 | ug/L | | | 01/03/24 16:48 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 100 | | 60 - 140 | | | | | 01/03/24 16:48 | 1 |
| 4-Bromofluorobenzene (Surr) | 103 | | 60 - 140 | | | | | 01/03/24 16:48 | 1 |
| Dibromofluoromethane (Surr) | 103 | | 60 - 140 | | | | | 01/03/24 16:48 | 1 |
| Toluene-d8 (Surr) | 95 | | 60 - 140 | | | | | 01/03/24 16:48 | 1 |

Client Sample ID: TB-20231230

Date Collected: 12/30/23 07:20

Date Received: 01/02/24 16:51

Lab Sample ID: 570-166495-3

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | ND | | 0.50 | 0.33 | ug/L | | | 01/03/24 15:41 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.15 | ug/L | | | 01/03/24 15:41 | 1 |
| Trichloroethene | ND | | 0.50 | 0.17 | ug/L | | | 01/03/24 15:41 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 97 | | 60 - 140 | | | | | 01/03/24 15:41 | 1 |
| 4-Bromofluorobenzene (Surr) | 100 | | 60 - 140 | | | | | 01/03/24 15:41 | 1 |
| Dibromofluoromethane (Surr) | 102 | | 60 - 140 | | | | | 01/03/24 15:41 | 1 |
| Toluene-d8 (Surr) | 99 | | 60 - 140 | | | | | 01/03/24 15:41 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

General Chemistry

Client Sample ID: Outfall002_20231230_Grab

Date Collected: 12/30/23 07:20

Date Received: 01/02/24 16:51

Lab Sample ID: 570-166495-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|-------------|-----------|------|------|----------|---|----------------|----------------|---------|
| HEM (Oil & Grease) (1664A) | ND | | 0.97 | 0.50 | mg/L | | 01/03/24 09:11 | 01/03/24 11:33 | 1 |
| Specific Conductance (SM 2510B) | 1100 | | 1.0 | 1.0 | umhos/cm | | | 01/03/24 16:35 | 1 |
| Settleable Solids (SM 2540F) | ND | BU BV | 0.10 | 0.10 | mL/L | | | 01/02/24 19:49 | 1 |

Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | DCA | BFB | DBFM | TOL |
|---------------------|--------------------------|----------|----------|----------|----------|
| | | (60-140) | (60-140) | (60-140) | (60-140) |
| 570-166495-1 | Outfall002_20231230_Grab | 100 | 103 | 103 | 95 |
| 570-166495-3 | TB-20231230 | 97 | 100 | 102 | 99 |
| LCS 570-398068/1003 | Lab Control Sample | 105 | 99 | 99 | 101 |
| LCSD 570-398068/4 | Lab Control Sample Dup | 99 | 99 | 101 | 101 |
| MB 570-398068/6 | Method Blank | 104 | 102 | 106 | 98 |

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-398068/6
Matrix: Water
Analysis Batch: 398068

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|--------------|------|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | ND | | 0.50 | 0.33 | ug/L | | | 01/03/24 15:18 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.15 | ug/L | | | 01/03/24 15:18 | 1 |
| Trichloroethene | ND | | 0.50 | 0.17 | ug/L | | | 01/03/24 15:18 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104 | | 60 - 140 | | 01/03/24 15:18 | 1 |
| 4-Bromofluorobenzene (Surr) | 102 | | 60 - 140 | | 01/03/24 15:18 | 1 |
| Dibromofluoromethane (Surr) | 106 | | 60 - 140 | | 01/03/24 15:18 | 1 |
| Toluene-d8 (Surr) | 98 | | 60 - 140 | | 01/03/24 15:18 | 1 |

Lab Sample ID: LCS 570-398068/1003
Matrix: Water
Analysis Batch: 398068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|-------------|------------|---------------|------|---|------|-------------|
| 1,1-Dichloroethene | 10.0 | 10.2 | | ug/L | | 102 | 50 - 150 |
| 1,2-Dichloroethane | 10.0 | 10.4 | | ug/L | | 104 | 70 - 130 |
| Trichloroethene | 10.0 | 10.2 | | ug/L | | 102 | 65 - 135 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 105 | | 60 - 140 |
| 4-Bromofluorobenzene (Surr) | 99 | | 60 - 140 |
| Dibromofluoromethane (Surr) | 99 | | 60 - 140 |
| Toluene-d8 (Surr) | 101 | | 60 - 140 |

Lab Sample ID: LCSD 570-398068/4
Matrix: Water
Analysis Batch: 398068

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| 1,1-Dichloroethene | 10.0 | 9.76 | | ug/L | | 98 | 50 - 150 | 4 | 32 |
| 1,2-Dichloroethane | 10.0 | 10.3 | | ug/L | | 103 | 70 - 130 | 1 | 49 |
| Trichloroethene | 10.0 | 10.2 | | ug/L | | 102 | 65 - 135 | 0 | 48 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99 | | 60 - 140 |
| 4-Bromofluorobenzene (Surr) | 99 | | 60 - 140 |
| Dibromofluoromethane (Surr) | 101 | | 60 - 140 |
| Toluene-d8 (Surr) | 101 | | 60 - 140 |

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-397937/1-A
Matrix: Water
Analysis Batch: 398028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 397937

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| HEM (Oil & Grease) | ND | | 1.0 | 0.51 | mg/L | | 01/03/24 09:11 | 01/03/24 11:33 | 1 |

Eurofins Calscience

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: LCS 570-397937/2-A
Matrix: Water
Analysis Batch: 398028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 397937

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|-------------|------------|---------------|------|---|------|-------------|
| HEM (Oil & Grease) | 40.0 | 33.5 | | mg/L | | 84 | 78 - 114 |

Lab Sample ID: LCSD 570-397937/3-A
Matrix: Water
Analysis Batch: 398028

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 397937

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| HEM (Oil & Grease) | 40.0 | 33.3 | | mg/L | | 83 | 78 - 114 | 1 | 18 |

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 570-398206/10
Matrix: Water
Analysis Batch: 398206

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|-----------|--------------|-----|-----|----------|---|----------|----------------|---------|
| Specific Conductance | ND | | 1.0 | 1.0 | umhos/cm | | | 01/03/24 14:51 | 1 |

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

GC/MS VOA

Analysis Batch: 398068

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-166495-1 | Outfall002_20231230_Grab | Total/NA | Water | 624.1 | |
| 570-166495-3 | TB-20231230 | Total/NA | Water | 624.1 | |
| MB 570-398068/6 | Method Blank | Total/NA | Water | 624.1 | |
| LCS 570-398068/1003 | Lab Control Sample | Total/NA | Water | 624.1 | |
| LCSD 570-398068/4 | Lab Control Sample Dup | Total/NA | Water | 624.1 | |

General Chemistry

Analysis Batch: 397721

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|----------|------------|
| 570-166495-1 | Outfall002_20231230_Grab | Total/NA | Water | SM 2540F | |

Prep Batch: 397937

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-166495-1 | Outfall002_20231230_Grab | Total/NA | Water | 1664A | |
| MB 570-397937/1-A | Method Blank | Total/NA | Water | 1664A | |
| LCS 570-397937/2-A | Lab Control Sample | Total/NA | Water | 1664A | |
| LCSD 570-397937/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | |

Analysis Batch: 398028

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-166495-1 | Outfall002_20231230_Grab | Total/NA | Water | 1664A | 397937 |
| MB 570-397937/1-A | Method Blank | Total/NA | Water | 1664A | 397937 |
| LCS 570-397937/2-A | Lab Control Sample | Total/NA | Water | 1664A | 397937 |
| LCSD 570-397937/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | 397937 |

Analysis Batch: 398206

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------------|-----------|--------|----------|------------|
| 570-166495-1 | Outfall002_20231230_Grab | Total/NA | Water | SM 2510B | |
| MB 570-398206/10 | Method Blank | Total/NA | Water | SM 2510B | |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

Client Sample ID: Outfall002_20231230_Grab

Lab Sample ID: 570-166495-1

Date Collected: 12/30/23 07:20

Matrix: Water

Date Received: 01/02/24 16:51

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|------------------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Analysis | 624.1 | | 1 | 10 mL | 10 mL | 398068 | 01/03/24 16:48 | B7TT | EET CAL 4 |
| Instrument ID: GCMSJJ | | | | | | | | | | |
| Total/NA | Prep | 1664A | | | 1030 mL | 1000 mL | 397937 | 01/03/24 09:11 | UWEZ | EET CAL 4 |
| Total/NA | Analysis | 1664A | | 1 | | | 398028 | 01/03/24 11:33 | KH3Z | EET CAL 4 |
| Instrument ID: NO EQUIQ | | | | | | | | | | |
| Total/NA | Analysis | SM 2510B | | 1 | | | 398206 | 01/03/24 16:35 | ZL4M | EET CAL 4 |
| Instrument ID: ManSciMantech | | | | | | | | | | |
| Total/NA | Analysis | SM 2540F | | 1 | 1000 mL | 1 L | 397721 | 01/02/24 19:49 | TXA8 | EET CAL 4 |
| Instrument ID: NOEQUIP | | | | | | | | | | |

Client Sample ID: TB-20231230

Lab Sample ID: 570-166495-3

Date Collected: 12/30/23 07:20

Matrix: Water

Date Received: 01/02/24 16:51

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Analysis | 624.1 | | 1 | 10 mL | 10 mL | 398068 | 01/03/24 15:41 | B7TT | EET CAL 4 |
| Instrument ID: GCMSJJ | | | | | | | | | | |

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|------------|---|-----------------------|-----------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

| Method | Method Description | Protocol | Laboratory |
|----------|------------------------------------|----------|------------|
| 624.1 | Volatile Organic Compounds (GC/MS) | EPA | EET CAL 4 |
| 1664A | HEM and SGT-HEM | 1664A | EET CAL 4 |
| SM 2510B | Conductivity, Specific Conductance | SM | EET CAL 4 |
| SM 2540F | Solids, Settleable | SM | EET CAL 4 |
| 1664A | HEM and SGT-HEM (Aqueous) | 1664A | EET CAL 4 |

Protocol References:

- 1664A = EPA-821-98-002
- EPA = US Environmental Protection Agency
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

- EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Grab

Job ID: 570-166495-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-166495-1 | Outfall002_20231230_Grab | Water | 12/30/23 07:20 | 01/02/24 16:51 |
| 570-166495-3 | TB-20231230 | Water | 12/30/23 07:20 | 01/02/24 16:51 |

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166495

VU9Z

CHAIN OF CUSTODY FORM

R R R R

| Client Name /Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing SSFL NPDES Permit 2023 Routine Outfall [001, 002, 011, 018] Outfall 002 Grab | | | | ANALYSIS REQUIRED | | | | | | Field Readings Meter serial # 15RAZ | | | | | | | | | | |
|--|--------------------------|---|---------------|-----------------|----------|---------------------------|--|--------------------------------------|---------------------------------|-----------------------------------|--|--|---|--|--|--|--|--|--|--|------|------|
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8605, 520.904.6944 (cell) | | | | Oil & Grease (E1664A-HEM) | VOCs - only 1,1-DCE, 1,2-DCA, TCE (E624) | Settleable Solids (E160.5 (SM2540F)) | Conductivity (SM2510B / E120.1) | Field Readings: (Include units) | | | | | | | | | | | | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement #2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | Time of Readings: 0725 | | DO 8.03 mg/L | | | | | | | | | | |
| Sampler: Acrien Mobeka | | | | | | | | | | Checked by: <i>[Signature]</i> | | pH 8.11 pH unit | | | | | | | | | | |
| | | | | | | | | | | Temp 51.4 °F | | | | | | | | | | | | |
| | | | | | | | | | | Field readings QC | | | | | | | | | | | | |
| | | | | | | | | | | Date/Time: 12-30-2023/0725 | | | | | | | | | | | | |
| | | | | | | | | | | Comment: | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Con | Preservative | Bottle # | V/S/MSD | | | | | | | | | | | | | | |
| Outfall 002 | Outfall002_20231230_Grab | 12/30/2023 <i>10720</i> | WM | 1 L Glass Amber | 2 | HCl | 15 | No | X | | | | | | | | | | | | | |
| | | | WM | 40 mL VOA | 3 | HCl | 30 | No | | X | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 70 | No | | | | X | | | | | | | | | | |
| | | | WM | 500 mL Poly | 1 | None | 75 | No | | | | | X | | | | | | | | | |
| Outfall002_20231230_Grab_Extra | | 12/30/2023 <i>10720</i> | WM | 1 L Glass Amber | 2 | HCl | 15 | No | H | | | | | | | | | | | | Hold | |
| | | | WM | 40 mL VOA | 3 | HCl | 30 | No | | H | | | | | | | | | | | | Hold |
| | | | WM | 500 mL Poly | 1 | None | 75 | No | | | | H | | | | | | | | | | |
| Trip Blanks | TB-20231230 | 12/30/2023 <i>10720</i> | WQ | 40 mL VOA | 3 | HCl | 30 | No | | X | | | | | | | | | | | | |



570-166495 Chain of Custody

Legend: R=Routine

| | | | |
|--|---|---|---|
| Relinquished By: <i>[Signature]</i> 1-2-2024 Date/Time: 1-2-2024 Company: H: A | Received By: <i>[Signature]</i> 1/2/24 1300 Date/Time: 1/2/24 1300 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: _____ X _____ 48 Hour: _____ 5 Day: _____ Normal: _____ | |
| Relinquished By: <i>[Signature]</i> 1/2/24 10:51 Date/Time: 1/2/24 10:51 Company: EC | Received By: <i>[Signature]</i> 1/2/24 1657 Date/Time: 1/2/24 1657 | | Sample Integrity: (Check) Intact: _____ On Ice: _____ |
| Relinquished By: _____ Date/Time: _____ Company: _____ | Received By: _____ Date/Time: _____ | | Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: _____ X _____ |

0.9/1.1 0.6/0.8
0.4/0.6

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-166495-1

Login Number: 166495

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/15/2024 8:25:17 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 002 - Comp

JOB NUMBER

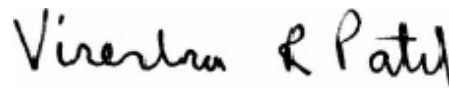
570-166496-1

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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1/15/2024 8:25:17 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Qualifiers

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|---|
| LG | LG=Surrogate recovery below the acceptance limits |

HPLC/IC

| Qualifier | Qualifier Description |
|-----------|--|
| BU | Analyzed out of holding time |
| BV | Sample received after holding time expired |

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| BU | Sample was prepped beyond the specified holding time |
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |

General Chemistry

| Qualifier | Qualifier Description |
|-----------|--|
| BU | Analyzed out of holding time |
| BU | Sample was prepped beyond the specified holding time |
| BV | Sample received after holding time expired |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Job ID: 570-166496-1

Eurofins Calscience

Job Narrative 570-166496-1

Receipt

The samples were received on 1/2/2024 4:51 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.6° C, 0.8° C and 1.1° C.

GC/MS Semi VOA

Method 625.1 SIM: Surrogate recovery for the following sample was outside control limits: Outfall002_20231231_Comp (570-166496-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC

Method 300.0: The following sample was received outside of holding time: Outfall002_20231231_Comp (570-166496-1).

Method 300.0: The following sample was diluted due to the nature of the sample matrix: Outfall002_20231231_Comp (570-166496-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method Filtration: The following samples were not filtered within 15 minutes of sample collection as required by the method: Outfall002_20231231_Comp_F (570-166496-3), Outfall002_20231231_Comp_F (570-166496-3[MS]) and Outfall002_20231231_Comp_F (570-166496-3[MSD]). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method SM 5540C: Sample result concentrations for methylene blue active substances (MBAS) are calculated as LAS, mol. wt. 320.

Method Kelada 01: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 570-398571 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method SM 2130B: The following sample was received outside of holding time: Outfall002_20231231_Comp (570-166496-1).

Method SM 5210B: The following sample was received outside of holding time: Outfall002_20231231_Comp (570-166496-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-398819. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 608LL

Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-398777. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 625.1_S.I.M

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Eurofins Calscience

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Client Sample ID: Outfall002_20231231_Comp

Lab Sample ID: 570-166496-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|------|------|------|---------|---|-----------|-------------------|
| Bis(2-ethylhexyl) phthalate | 12 | | 4.8 | 3.4 | ug/L | 1 | | 625.1 SIM | Total/NA |
| Chloride | 51 | | 2.0 | 0.72 | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate - DL | 280 | | 10 | 1.8 | mg/L | 10 | | 300.0 | Total/NA |
| Copper | 0.82 | J,DX | 2.0 | 0.32 | ug/L | 1 | | 200.8 | Total Recoverable |
| Turbidity | 1.8 | BU BV | 0.05 | 0.05 | NTU | 1 | | SM 2130B | Total/NA |
| Total Dissolved Solids | 780 | | 10 | 8.7 | mg/L | 1 | | SM 2540C | Total/NA |
| Total Suspended Solids | 2.1 | | 1.0 | 0.80 | mg/L | 1 | | SM 2540D | Total/NA |

Client Sample ID: Outfall002_20231231_Comp_F

Lab Sample ID: 570-166496-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| Copper | 0.72 | J,DX BU | 2.0 | 0.32 | ug/L | 1 | | 200.8 | Dissolved |
| Selenium | 0.68 | J,DX BU | 2.0 | 0.52 | ug/L | 1 | | 200.8 | Dissolved |

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Client Sample ID: Outfall002_20231231_Comp

Lab Sample ID: 570-166496-1

Date Collected: 12/31/23 07:25

Matrix: Water

Date Received: 01/02/24 16:51

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------------|-----------|-----------|------|------|------|---|----------------|----------------|---------|
| 2,4,6-Trichlorophenol | ND | | 0.96 | 0.13 | ug/L | | 01/05/24 12:37 | 01/08/24 19:11 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.19 | 0.11 | ug/L | | 01/05/24 12:37 | 01/08/24 19:11 | 1 |
| Bis(2-ethylhexyl) phthalate | 12 | | 4.8 | 3.4 | ug/L | | 01/05/24 12:37 | 01/08/24 19:11 | 1 |
| N-Nitrosodimethylamine | ND | | 0.19 | 0.18 | ug/L | | 01/05/24 12:37 | 01/08/24 19:11 | 1 |
| Pentachlorophenol | ND | | 0.96 | 0.81 | ug/L | | 01/05/24 12:37 | 01/08/24 19:11 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 28 | LG | 31 - 120 | 01/05/24 12:37 | 01/08/24 19:11 | 1 |
| Phenol-d6 (Surr) | 15 | | 10 - 120 | 01/05/24 12:37 | 01/08/24 19:11 | 1 |
| p-Terphenyl-d14 (Surr) | 58 | | 45 - 120 | 01/05/24 12:37 | 01/08/24 19:11 | 1 |
| 2,4,6-Tribromophenol | 50 | | 28 - 127 | 01/05/24 12:37 | 01/08/24 19:11 | 1 |
| 2-Fluorophenol | 22 | | 17 - 120 | 01/05/24 12:37 | 01/08/24 19:11 | 1 |
| Nitrobenzene-d5 | 29 | | 27 - 120 | 01/05/24 12:37 | 01/08/24 19:11 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: EPA 608.3 - Organochlorine Pesticides in Water - RA2

Client Sample ID: Outfall002_20231231_Comp

Date Collected: 12/31/23 07:25

Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------------------|-----------|-----------|----------|--------|------|---|----------------|----------------|---------|
| alpha-BHC | ND | | 0.0013 | 0.0012 | ug/L | | 01/05/24 14:44 | 01/12/24 11:50 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| <i>Tetrachloro-m-xylene</i> | 65 | | 20 - 139 | | | | 01/05/24 14:44 | 01/12/24 11:50 | 1 |
| <i>DCB Decachlorobiphenyl (Surr)</i> | 102 | | 20 - 154 | | | | 01/05/24 14:44 | 01/12/24 11:50 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: EPA 300.0 - Anions, Ion Chromatography

Client Sample ID: Outfall002_20231231_Comp

Date Collected: 12/31/23 07:25

Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 51 | | 2.0 | 0.72 | mg/L | | | 01/03/24 14:16 | 2 |
| Nitrite as N | ND | BU BV | 0.20 | 0.086 | mg/L | | | 01/03/24 14:16 | 2 |
| Nitrate as N | ND | BU BV | 0.20 | 0.039 | mg/L | | | 01/03/24 14:16 | 2 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: Outfall002_20231231_Comp

Date Collected: 12/31/23 07:25

Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|----|-----|------|---|----------|----------------|---------|
| Sulfate | 280 | | 10 | 1.8 | mg/L | | | 01/03/24 16:47 | 10 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: EPA 314.0 - Perchlorate (IC)

Client Sample ID: Outfall002_20231231_Comp
Date Collected: 12/31/23 07:25
Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Perchlorate | ND | | 2.0 | 0.91 | ug/L | | | 01/04/24 18:40 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: EPA NO2NO3 Calc - Nitrogen, Nitrate-Nitrite

Client Sample ID: Outfall002_20231231_Comp

Date Collected: 12/31/23 07:25

Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Nitrate Nitrite as N | ND | | 0.10 | 0.020 | mg/L | | | 01/03/24 14:16 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: Outfall002_20231231_Comp

Date Collected: 12/31/23 07:25

Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------|-------------|-------------|-----|------|------|---|----------------|----------------|---------|
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | 01/03/24 07:04 | 01/04/24 15:07 | 1 |
| Copper | 0.82 | J,DX | 2.0 | 0.32 | ug/L | | 01/03/24 07:04 | 01/04/24 15:07 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | 01/03/24 07:04 | 01/04/24 15:07 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | 01/03/24 07:04 | 01/04/24 15:07 | 1 |
| Zinc | ND | | 20 | 2.8 | ug/L | | 01/03/24 07:04 | 01/04/24 15:07 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: Outfall002_20231231_Comp_F
Date Collected: 12/31/23 07:25
Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-3
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|----------------|-----|------|------|---|----------|----------------|---------|
| Cadmium | ND | BU | 1.0 | 0.13 | ug/L | | | 01/04/24 17:25 | 1 |
| Copper | 0.72 | J,DX BU | 2.0 | 0.32 | ug/L | | | 01/04/24 17:25 | 1 |
| Lead | ND | BU | 1.0 | 0.12 | ug/L | | | 01/04/24 17:25 | 1 |
| Selenium | 0.68 | J,DX BU | 2.0 | 0.52 | ug/L | | | 01/04/24 17:25 | 1 |
| Zinc | ND | BU | 20 | 2.8 | ug/L | | | 01/04/24 17:25 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: Outfall002_20231231_Comp
Date Collected: 12/31/23 07:25
Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/10/24 13:26 | 01/12/24 12:31 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: EPA 245.1 - Mercury (CVAA) - Dissolved

Client Sample ID: Outfall002_20231231_Comp_F
Date Collected: 12/31/23 07:25
Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-3
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | BU | 0.20 | 0.12 | ug/L | | 01/09/24 15:13 | 01/10/24 13:44 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

General Chemistry

Client Sample ID: Outfall002_20231231_Comp

Date Collected: 12/31/23 07:25

Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|------------|--------------|-------|-------|------|---|----------------|----------------|---------|
| Ammonia (EPA 350.1) | ND | | 0.075 | 0.029 | mg/L | | 01/11/24 08:34 | 01/11/24 12:23 | 1 |
| Cyanide, Total (EPA Kelada 01) | ND | | 5.0 | 2.5 | ug/L | | | 01/04/24 16:56 | 1 |
| Turbidity (SM 2130B) | 1.8 | BU BV | 0.05 | 0.05 | NTU | | | 01/03/24 12:29 | 1 |
| Total Dissolved Solids (SM 2540C) | 780 | | 10 | 8.7 | mg/L | | | 01/03/24 16:32 | 1 |
| Total Suspended Solids (SM 2540D) | 2.1 | | 1.0 | 0.80 | mg/L | | | 01/05/24 13:58 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | ND | BU BV | 2.0 | 1.0 | mg/L | | 01/03/24 10:51 | 01/08/24 15:12 | 1 |
| MBAS (SM 5540C) | ND | BU BV | 0.20 | 0.050 | mg/L | | 01/05/24 16:04 | 01/05/24 16:34 | 1 |

Surrogate Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|---------------------|--------------------------|--|------------------|--------------------|-----------------|-----------------|-----------------|
| | | FBP (31-120) | PHL6 (10-120) | TPHd14 (45-120) | TBP (28-127) | 2FP (17-120) | NBZ (27-120) |
| 570-166496-1 | Outfall002_20231231_Comp | 28 LG | 15 | 58 | 50 | 22 | 29 |
| LCS 570-398777/2-A | Lab Control Sample | 61 | 41 | 68 | 73 | 63 | 54 |
| LCSD 570-398777/3-A | Lab Control Sample Dup | 67 | 37 | 70 | 80 | 57 | 60 |
| MB 570-398777/1-A | Method Blank | 32 | 19 | 57 | 47 | 28 | 37 |

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)
 TBP = 2,4,6-Tribromophenol
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | |
|---------------------|--------------------------|--|------------------|
| | | TCX1 (20-139) | DCB1 (20-154) |
| 570-166496-1 - RA2 | Outfall002_20231231_Comp | 65 | 102 |
| LCS 570-398819/2-A | Lab Control Sample | 76 | 85 |
| LCSD 570-398819/3-A | Lab Control Sample Dup | 83 | 94 |
| MB 570-398819/1-A | Method Blank | 85 | 87 |

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCB = DCB Decachlorobiphenyl (Surr)

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 570-398777/1-A
Matrix: Water
Analysis Batch: 399131

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 398777

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| 2,4,6-Trichlorophenol | ND | | 1.0 | 0.14 | ug/L | | 01/05/24 12:37 | 01/08/24 16:17 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.20 | 0.12 | ug/L | | 01/05/24 12:37 | 01/08/24 16:17 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 5.0 | 3.6 | ug/L | | 01/05/24 12:37 | 01/08/24 16:17 | 1 |
| N-Nitrosodimethylamine | ND | | 0.20 | 0.19 | ug/L | | 01/05/24 12:37 | 01/08/24 16:17 | 1 |
| Pentachlorophenol | ND | | 1.0 | 0.84 | ug/L | | 01/05/24 12:37 | 01/08/24 16:17 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 32 | | 31 - 120 | 01/05/24 12:37 | 01/08/24 16:17 | 1 |
| Phenol-d6 (Surr) | 19 | | 10 - 120 | 01/05/24 12:37 | 01/08/24 16:17 | 1 |
| p-Terphenyl-d14 (Surr) | 57 | | 45 - 120 | 01/05/24 12:37 | 01/08/24 16:17 | 1 |
| 2,4,6-Tribromophenol | 47 | | 28 - 127 | 01/05/24 12:37 | 01/08/24 16:17 | 1 |
| 2-Fluorophenol | 28 | | 17 - 120 | 01/05/24 12:37 | 01/08/24 16:17 | 1 |
| Nitrobenzene-d5 | 37 | | 27 - 120 | 01/05/24 12:37 | 01/08/24 16:17 | 1 |

Lab Sample ID: LCS 570-398777/2-A
Matrix: Water
Analysis Batch: 400279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 398777

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|-------------|
| 2,4,6-Trichlorophenol | 20.0 | 14.6 | | ug/L | | 73 | 52 - 129 |
| 2,4-Dinitrotoluene | 20.0 | 17.1 | | ug/L | | 86 | 48 - 127 |
| Bis(2-ethylhexyl) phthalate | 20.0 | 17.2 | | ug/L | | 86 | 29 - 137 |
| N-Nitrosodimethylamine | 20.0 | 17.6 | | ug/L | | 88 | 20 - 120 |
| Pentachlorophenol | 20.0 | 12.5 | | ug/L | | 62 | 38 - 152 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 61 | | 31 - 120 |
| Phenol-d6 (Surr) | 41 | | 10 - 120 |
| p-Terphenyl-d14 (Surr) | 68 | | 45 - 120 |
| 2,4,6-Tribromophenol | 73 | | 28 - 127 |
| 2-Fluorophenol | 63 | | 17 - 120 |
| Nitrobenzene-d5 | 54 | | 27 - 120 |

Lab Sample ID: LCSD 570-398777/3-A
Matrix: Water
Analysis Batch: 399131

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 398777

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| 2,4,6-Trichlorophenol | 20.0 | 16.6 | | ug/L | | 83 | 52 - 129 | NaN | 35 |
| 2,4-Dinitrotoluene | 20.0 | 16.9 | | ug/L | | 84 | 48 - 127 | NaN | 25 |
| Bis(2-ethylhexyl) phthalate | 20.0 | 17.4 | | ug/L | | 87 | 29 - 137 | NaN | 50 |
| N-Nitrosodimethylamine | 20.0 | 12.6 | | ug/L | | 63 | 20 - 120 | NaN | 21 |
| Pentachlorophenol | 20.0 | 19.9 | | ug/L | | 99 | 38 - 152 | NaN | 52 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|-------------------------|----------------|----------------|----------|
| 2-Fluorobiphenyl (Surr) | 67 | | 31 - 120 |
| Phenol-d6 (Surr) | 37 | | 10 - 120 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCSD 570-398777/3-A
Matrix: Water
Analysis Batch: 399131

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 398777

| Surrogate | LCS D %Recovery | LCS D Qualifier | Limits |
|------------------------|-----------------|-----------------|----------|
| p-Terphenyl-d14 (Surr) | 70 | | 45 - 120 |
| 2,4,6-Tribromophenol | 80 | | 28 - 127 |
| 2-Fluorophenol | 57 | | 17 - 120 |
| Nitrobenzene-d5 | 60 | | 27 - 120 |

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-398819/1-A
Matrix: Water
Analysis Batch: 400105

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 398819

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|-----------|--------------|--------|--------|------|---|----------------|----------------|---------|
| alpha-BHC | ND | | 0.0013 | 0.0012 | ug/L | | 01/05/24 14:44 | 01/11/24 10:52 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene | 85 | | 20 - 139 | 01/05/24 14:44 | 01/11/24 10:52 | 1 |
| DCB Decachlorobiphenyl (Surr) | 87 | | 20 - 154 | 01/05/24 14:44 | 01/11/24 10:52 | 1 |

Lab Sample ID: LCS 570-398819/2-A
Matrix: Water
Analysis Batch: 400105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 398819

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|------------|---------------|------|---|------|-------------|
| alpha-BHC | 0.0333 | 0.0192 | | ug/L | | 58 | 37 - 140 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-------------------------------|---------------|---------------|----------|
| Tetrachloro-m-xylene | 76 | | 20 - 139 |
| DCB Decachlorobiphenyl (Surr) | 85 | | 20 - 154 |

Lab Sample ID: LCSD 570-398819/3-A
Matrix: Water
Analysis Batch: 400105

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 398819

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| alpha-BHC | 0.0333 | 0.0201 | | ug/L | | 60 | 37 - 140 | 5 | 36 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|-------------------------------|----------------|----------------|----------|
| Tetrachloro-m-xylene | 83 | | 20 - 139 |
| DCB Decachlorobiphenyl (Surr) | 94 | | 20 - 154 |

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-397816/5
Matrix: Water
Analysis Batch: 397816

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Nitrite as N | ND | | 0.10 | 0.043 | mg/L | | | 01/03/24 05:46 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 570-397816/5
Matrix: Water
Analysis Batch: 397816

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Nitrate as N | ND | | 0.10 | 0.020 | mg/L | | | 01/03/24 05:46 | 1 |

Lab Sample ID: LCS 570-397816/6
Matrix: Water
Analysis Batch: 397816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------|-------------|------------|---------------|------|---|------|-------------|
| Nitrite as N | 2.50 | 2.64 | | mg/L | | 106 | 90 - 110 |
| Nitrate as N | 5.00 | 5.16 | | mg/L | | 103 | 90 - 110 |

Lab Sample ID: LCSD 570-397816/7
Matrix: Water
Analysis Batch: 397816

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Nitrite as N | 2.50 | 2.51 | | mg/L | | 100 | 90 - 110 | 5 | 15 |
| Nitrate as N | 5.00 | 5.01 | | mg/L | | 100 | 90 - 110 | 3 | 15 |

Lab Sample ID: MB 570-397818/5
Matrix: Water
Analysis Batch: 397818

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Chloride | ND | | 1.0 | 0.36 | mg/L | | | 01/03/24 05:46 | 1 |
| Sulfate | ND | | 1.0 | 0.18 | mg/L | | | 01/03/24 05:46 | 1 |

Lab Sample ID: LCS 570-397818/6
Matrix: Water
Analysis Batch: 397818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 50.0 | 51.1 | | mg/L | | 102 | 90 - 110 |
| Sulfate | 50.0 | 49.5 | | mg/L | | 99 | 90 - 110 |

Lab Sample ID: LCSD 570-397818/7
Matrix: Water
Analysis Batch: 397818

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Chloride | 50.0 | 51.3 | | mg/L | | 103 | 90 - 110 | 0 | 15 |
| Sulfate | 50.0 | 49.2 | | mg/L | | 98 | 90 - 110 | 0 | 15 |

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 570-398390/7
Matrix: Water
Analysis Batch: 398390

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Perchlorate | ND | | 2.0 | 0.91 | ug/L | | | 01/04/24 13:27 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: 314.0 - Perchlorate (IC) (Continued)

Lab Sample ID: LCS 570-398390/8
 Matrix: Water
 Analysis Batch: 398390

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------|-------------|------------|---------------|------|---|------|-------------|
| Perchlorate | 25.0 | 25.0 | | ug/L | | 100 | 85 - 115 |

Lab Sample ID: LCSD 570-398390/9
 Matrix: Water
 Analysis Batch: 398390

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Perchlorate | 25.0 | 25.3 | | ug/L | | 101 | 85 - 115 | 1 | 15 |

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-397881/1-A
 Matrix: Water
 Analysis Batch: 398530

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 397881

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | 01/03/24 07:04 | 01/04/24 14:54 | 1 |
| Copper | ND | | 2.0 | 0.32 | ug/L | | 01/03/24 07:04 | 01/04/24 14:54 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | 01/03/24 07:04 | 01/04/24 14:54 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | 01/03/24 07:04 | 01/04/24 14:54 | 1 |
| Zinc | ND | | 20 | 2.8 | ug/L | | 01/03/24 07:04 | 01/04/24 14:54 | 1 |

Lab Sample ID: LCS 570-397881/2-A
 Matrix: Water
 Analysis Batch: 398530

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 397881

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Cadmium | 80.0 | 82.1 | | ug/L | | 103 | 85 - 115 |
| Copper | 80.0 | 83.3 | | ug/L | | 104 | 85 - 115 |
| Lead | 80.0 | 80.8 | | ug/L | | 101 | 85 - 115 |
| Selenium | 80.0 | 81.0 | | ug/L | | 101 | 85 - 115 |
| Zinc | 80.0 | 78.0 | | ug/L | | 97 | 85 - 115 |

Lab Sample ID: LCSD 570-397881/3-A
 Matrix: Water
 Analysis Batch: 398530

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total Recoverable
 Prep Batch: 397881

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Cadmium | 80.0 | 81.2 | | ug/L | | 101 | 85 - 115 | 1 | 20 |
| Copper | 80.0 | 82.1 | | ug/L | | 103 | 85 - 115 | 1 | 20 |
| Lead | 80.0 | 78.4 | | ug/L | | 98 | 85 - 115 | 3 | 20 |
| Selenium | 80.0 | 76.9 | | ug/L | | 96 | 85 - 115 | 5 | 20 |
| Zinc | 80.0 | 77.1 | | ug/L | | 96 | 85 - 115 | 1 | 20 |

Lab Sample ID: 570-166496-1 MS
 Matrix: Water
 Analysis Batch: 398530

Client Sample ID: Outfall002_20231231_Comp
 Prep Type: Total Recoverable
 Prep Batch: 397881

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Cadmium | ND | | 80.0 | 77.9 | | ug/L | | 97 | 80 - 120 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 570-166496-1 MS
Matrix: Water
Analysis Batch: 398530

Client Sample ID: Outfall002_20231231_Comp
Prep Type: Total Recoverable
Prep Batch: 397881

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Copper | 0.82 | J,DX | 80.0 | 79.5 | | ug/L | | 98 | 80 - 120 |
| Lead | ND | | 80.0 | 75.8 | | ug/L | | 95 | 80 - 120 |
| Selenium | ND | | 80.0 | 76.5 | | ug/L | | 96 | 80 - 120 |
| Zinc | ND | | 80.0 | 75.3 | | ug/L | | 94 | 80 - 120 |

Lab Sample ID: 570-166496-1 MSD
Matrix: Water
Analysis Batch: 398530

Client Sample ID: Outfall002_20231231_Comp
Prep Type: Total Recoverable
Prep Batch: 397881

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Cadmium | ND | | 80.0 | 78.7 | | ug/L | | 98 | 80 - 120 | 1 | 20 |
| Copper | 0.82 | J,DX | 80.0 | 79.0 | | ug/L | | 98 | 80 - 120 | 1 | 20 |
| Lead | ND | | 80.0 | 76.1 | | ug/L | | 95 | 80 - 120 | 0 | 20 |
| Selenium | ND | | 80.0 | 77.5 | | ug/L | | 97 | 80 - 120 | 1 | 20 |
| Zinc | ND | | 80.0 | 75.8 | | ug/L | | 95 | 80 - 120 | 1 | 20 |

Lab Sample ID: MB 570-398325/1-A
Matrix: Water
Analysis Batch: 398572

Client Sample ID: Method Blank
Prep Type: Dissolved

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | | 01/04/24 16:50 | 1 |
| Copper | ND | | 2.0 | 0.32 | ug/L | | | 01/04/24 16:50 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | | 01/04/24 16:50 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | | 01/04/24 16:50 | 1 |
| Zinc | ND | | 20 | 2.8 | ug/L | | | 01/04/24 16:50 | 1 |

Lab Sample ID: LCS 570-398325/2-A
Matrix: Water
Analysis Batch: 398572

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Cadmium | 80.0 | 79.8 | | ug/L | | 100 | 85 - 115 |
| Copper | 80.0 | 80.1 | | ug/L | | 100 | 85 - 115 |
| Lead | 80.0 | 79.5 | | ug/L | | 99 | 85 - 115 |
| Selenium | 80.0 | 80.4 | | ug/L | | 101 | 85 - 115 |
| Zinc | 80.0 | 76.0 | | ug/L | | 95 | 85 - 115 |

Lab Sample ID: LCSD 570-398325/3-A
Matrix: Water
Analysis Batch: 398572

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Cadmium | 80.0 | 77.2 | | ug/L | | 97 | 85 - 115 | 3 | 20 |
| Copper | 80.0 | 80.0 | | ug/L | | 100 | 85 - 115 | 0 | 20 |
| Lead | 80.0 | 79.8 | | ug/L | | 100 | 85 - 115 | 0 | 20 |
| Selenium | 80.0 | 79.7 | | ug/L | | 100 | 85 - 115 | 1 | 20 |
| Zinc | 80.0 | 74.1 | | ug/L | | 93 | 85 - 115 | 3 | 20 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 570-166496-3 MS
Matrix: Water
Analysis Batch: 398572

Client Sample ID: Outfall002_20231231_Comp_F
Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Cadmium | ND | BU | 80.0 | 78.4 | BU | ug/L | | 98 | 80 - 120 |
| Copper | 0.72 | J,DX BU | 80.0 | 78.3 | BU | ug/L | | 97 | 80 - 120 |
| Lead | ND | BU | 80.0 | 79.5 | BU | ug/L | | 99 | 80 - 120 |
| Selenium | 0.68 | J,DX BU | 80.0 | 78.2 | BU | ug/L | | 97 | 80 - 120 |
| Zinc | ND | BU | 80.0 | 71.5 | BU | ug/L | | 89 | 80 - 120 |

Lab Sample ID: 570-166496-3 MSD
Matrix: Water
Analysis Batch: 398572

Client Sample ID: Outfall002_20231231_Comp_F
Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Cadmium | ND | BU | 80.0 | 77.3 | BU | ug/L | | 97 | 80 - 120 | 1 | 20 |
| Copper | 0.72 | J,DX BU | 80.0 | 78.3 | BU | ug/L | | 97 | 80 - 120 | 0 | 20 |
| Lead | ND | BU | 80.0 | 78.9 | BU | ug/L | | 99 | 80 - 120 | 1 | 20 |
| Selenium | 0.68 | J,DX BU | 80.0 | 80.3 | BU | ug/L | | 100 | 80 - 120 | 3 | 20 |
| Zinc | ND | BU | 80.0 | 73.0 | BU | ug/L | | 91 | 80 - 120 | 2 | 20 |

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 570-399987/1-A
Matrix: Water
Analysis Batch: 400677

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 399987

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/10/24 13:26 | 01/12/24 12:03 | 1 |

Lab Sample ID: LCS 570-399987/2-A
Matrix: Water
Analysis Batch: 400677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 399987

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Mercury | 8.00 | 6.98 | | ug/L | | 87 | 85 - 115 |

Lab Sample ID: LCSD 570-399987/3-A
Matrix: Water
Analysis Batch: 400677

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 399987

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Mercury | 8.00 | 7.29 | | ug/L | | 91 | 85 - 115 | 4 | 10 |

Lab Sample ID: 570-166496-1 MS
Matrix: Water
Analysis Batch: 400677

Client Sample ID: Outfall002_20231231_Comp
Prep Type: Total/NA
Prep Batch: 399987

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Mercury | ND | | 8.00 | 7.91 | | ug/L | | 99 | 85 - 115 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 570-166496-1 MSD
 Matrix: Water
 Analysis Batch: 400677

Client Sample ID: Outfall002_20231231_Comp
 Prep Type: Total/NA
 Prep Batch: 399987

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Mercury | ND | | 8.00 | 8.03 | | ug/L | | 100 | 85 - 115 | 1 | 10 |

Lab Sample ID: MB 570-399609/1-B
 Matrix: Water
 Analysis Batch: 399960

Client Sample ID: Method Blank
 Prep Type: Dissolved
 Prep Batch: 399656

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/09/24 15:13 | 01/10/24 13:22 | 1 |

Lab Sample ID: LCS 570-399609/2-B
 Matrix: Water
 Analysis Batch: 399960

Client Sample ID: Lab Control Sample
 Prep Type: Dissolved
 Prep Batch: 399656

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Mercury | 8.00 | 8.16 | | ug/L | | 102 | 85 - 115 |

Lab Sample ID: LCSD 570-399609/3-B
 Matrix: Water
 Analysis Batch: 399960

Client Sample ID: Lab Control Sample Dup
 Prep Type: Dissolved
 Prep Batch: 399656

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Mercury | 8.00 | 8.25 | | ug/L | | 103 | 85 - 115 | 1 | 10 |

Lab Sample ID: 570-166496-3 MS
 Matrix: Water
 Analysis Batch: 399960

Client Sample ID: Outfall002_20231231_Comp_F
 Prep Type: Dissolved
 Prep Batch: 399656

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Mercury | ND | BU | 8.00 | 7.69 | BU | ug/L | | 96 | 85 - 115 |

Lab Sample ID: 570-166496-3 MSD
 Matrix: Water
 Analysis Batch: 399960

Client Sample ID: Outfall002_20231231_Comp_F
 Prep Type: Dissolved
 Prep Batch: 399656

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Mercury | ND | BU | 8.00 | 7.71 | BU | ug/L | | 96 | 85 - 115 | 0 | 10 |

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 570-400021/5-A
 Matrix: Water
 Analysis Batch: 400382

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 400021

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-------|-------|------|---|----------------|----------------|---------|
| Ammonia | ND | | 0.075 | 0.029 | mg/L | | 01/11/24 08:34 | 01/11/24 10:45 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 570-400021/6-A
 Matrix: Water
 Analysis Batch: 400382

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 400021

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Ammonia | 0.500 | 0.478 | | mg/L | | 96 | 90 - 110 |

Lab Sample ID: LCSD 570-400021/7-A
 Matrix: Water
 Analysis Batch: 400382

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 400021

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Ammonia | 0.500 | 0.468 | | mg/L | | 94 | 90 - 110 | 2 | 20 |

Method: Kelada 01 - Cyanide, Total, Acid Dissociable and Thiocyanate

Lab Sample ID: MB 570-398571/11
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Cyanide, Total | ND | | 5.0 | 2.5 | ug/L | | | 01/04/24 14:13 | 1 |

Lab Sample ID: LCS 570-398571/12
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|------------|---------------|------|---|------|-------------|
| Cyanide, Total | 250 | 245 | | ug/L | | 98 | 90 - 110 |

Lab Sample ID: LCSD 570-398571/13
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Cyanide, Total | 250 | 246 | | ug/L | | 98 | 90 - 110 | 0 | 20 |

Lab Sample ID: MRL 570-398571/10
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|------------|---------------|------|---|------|-------------|
| Cyanide, Total | 5.00 | 5.48 | | ug/L | | 110 | 50 - 150 |

Method: SM 2130B - Turbidity

Lab Sample ID: LCSSRM 570-398050/1
 Matrix: Water
 Analysis Batch: 398050

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|---------------|------------------|------|---|-------|--------------|
| Turbidity | 800 | 800 | | NTU | | 100.1 | 95.0 - 105.0 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: SM 2130B - Turbidity (Continued)

Lab Sample ID: LCSSRM 570-398050/2
 Matrix: Water
 Analysis Batch: 398050

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|---------------|------------------|------|---|-------|--------------|
| Turbidity | 20.0 | 20 | | NTU | | 100.0 | 95.0 - 105.0 |

Lab Sample ID: LCSSRM 570-398050/3
 Matrix: Water
 Analysis Batch: 398050

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|---------------|------------------|------|---|-------|-------------|
| Turbidity | 0.0200 | ND | | NTU | | 100.0 | 0.0 - 200.0 |

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-398152/1
 Matrix: Water
 Analysis Batch: 398152

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|----|-----|------|---|----------|----------------|---------|
| Total Dissolved Solids | ND | | 10 | 8.7 | mg/L | | | 01/03/24 16:32 | 1 |

Lab Sample ID: LCS 570-398152/2
 Matrix: Water
 Analysis Batch: 398152

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Dissolved Solids | 1000 | 1040 | | mg/L | | 104 | 84 - 108 |

Lab Sample ID: LCSD 570-398152/3
 Matrix: Water
 Analysis Batch: 398152

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Total Dissolved Solids | 1000 | 1030 | | mg/L | | 103 | 84 - 108 | 0 | 10 |

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-398798/1
 Matrix: Water
 Analysis Batch: 398798

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Suspended Solids | ND | | 1.0 | 0.80 | mg/L | | | 01/05/24 13:58 | 1 |

Lab Sample ID: LCS 570-398798/2
 Matrix: Water
 Analysis Batch: 398798

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Suspended Solids | 100 | 99.0 | | mg/L | | 99 | 77 - 116 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCSD 570-398798/3
 Matrix: Water
 Analysis Batch: 398798

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Total Suspended Solids | 100 | 106 | | mg/L | | 106 | 77 - 116 | 7 | 10 |

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 570-398002/1-A
 Matrix: Water
 Analysis Batch: 399293

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 398002

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|------------|---------------|-----------|-----------|------|---|----------------|----------------|---------|
| Biochemical Oxygen Demand | 0.120 | | 0.0000020 | 0.0000010 | mg/L | | 01/03/24 10:51 | 01/08/24 14:04 | 1 |

Lab Sample ID: LCS 570-398002/3-A
 Matrix: Water
 Analysis Batch: 399293

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 398002

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------------|-------------|------------|---------------|------|---|------|--------------|
| Biochemical Oxygen Demand | 199 | 198 | | mg/L | | 100 | 84.6 - 115.4 |

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 570-398843/5-A
 Matrix: Water
 Analysis Batch: 398861

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 398843

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| MBAS | ND | | 0.20 | 0.050 | mg/L | | 01/05/24 16:04 | 01/05/24 16:26 | 1 |

Lab Sample ID: LCS 570-398843/6-A
 Matrix: Water
 Analysis Batch: 398861

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 398843

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| MBAS | 0.500 | 0.496 | | mg/L | | 99 | 83 - 122 |

Lab Sample ID: LCSD 570-398843/7-A
 Matrix: Water
 Analysis Batch: 398861

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 398843

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| MBAS | 0.500 | 0.504 | | mg/L | | 101 | 83 - 122 | 2 | 10 |

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

GC/MS Semi VOA

Prep Batch: 398777

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 625 | |
| MB 570-398777/1-A | Method Blank | Total/NA | Water | 625 | |
| LCS 570-398777/2-A | Lab Control Sample | Total/NA | Water | 625 | |
| LCS 570-398777/3-A | Lab Control Sample Dup | Total/NA | Water | 625 | |

Analysis Batch: 399131

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 625.1 SIM | 398777 |
| MB 570-398777/1-A | Method Blank | Total/NA | Water | 625.1 SIM | 398777 |
| LCS 570-398777/3-A | Lab Control Sample Dup | Total/NA | Water | 625.1 SIM | 398777 |

Analysis Batch: 400279

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|-----------|------------|
| LCS 570-398777/2-A | Lab Control Sample | Total/NA | Water | 625.1 SIM | 398777 |

GC Semi VOA

Prep Batch: 398819

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 - RA2 | Outfall002_20231231_Comp | Total/NA | Water | 608 | |
| MB 570-398819/1-A | Method Blank | Total/NA | Water | 608 | |
| LCS 570-398819/2-A | Lab Control Sample | Total/NA | Water | 608 | |
| LCS 570-398819/3-A | Lab Control Sample Dup | Total/NA | Water | 608 | |

Analysis Batch: 400105

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| MB 570-398819/1-A | Method Blank | Total/NA | Water | 608.3 | 398819 |
| LCS 570-398819/2-A | Lab Control Sample | Total/NA | Water | 608.3 | 398819 |
| LCS 570-398819/3-A | Lab Control Sample Dup | Total/NA | Water | 608.3 | 398819 |

Analysis Batch: 400464

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 - RA2 | Outfall002_20231231_Comp | Total/NA | Water | 608.3 | 398819 |

HPLC/IC

Analysis Batch: 397816

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 300.0 | |
| MB 570-397816/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-397816/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCS 570-397816/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |

Analysis Batch: 397818

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 300.0 | |
| 570-166496-1 - DL | Outfall002_20231231_Comp | Total/NA | Water | 300.0 | |
| MB 570-397818/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-397818/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCS 570-397818/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |

QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

HPLC/IC

Analysis Batch: 398390

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 314.0 | |
| MB 570-398390/7 | Method Blank | Total/NA | Water | 314.0 | |
| LCS 570-398390/8 | Lab Control Sample | Total/NA | Water | 314.0 | |
| LCSD 570-398390/9 | Lab Control Sample Dup | Total/NA | Water | 314.0 | |

Analysis Batch: 400782

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|-------------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | NO2NO3 Calc | |

Metals

Prep Batch: 397881

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-------------------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total Recoverable | Water | 200.8 | |
| MB 570-397881/1-A | Method Blank | Total Recoverable | Water | 200.8 | |
| LCS 570-397881/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 | |
| LCSD 570-397881/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 | |
| 570-166496-1 MS | Outfall002_20231231_Comp | Total Recoverable | Water | 200.8 | |
| 570-166496-1 MSD | Outfall002_20231231_Comp | Total Recoverable | Water | 200.8 | |

Filtration Batch: 398325

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|------------|------------|
| 570-166496-3 | Outfall002_20231231_Comp_F | Dissolved | Water | Filtration | |
| MB 570-398325/1-A | Method Blank | Dissolved | Water | Filtration | |
| LCS 570-398325/2-A | Lab Control Sample | Dissolved | Water | Filtration | |
| LCSD 570-398325/3-A | Lab Control Sample Dup | Dissolved | Water | Filtration | |
| 570-166496-3 MS | Outfall002_20231231_Comp_F | Dissolved | Water | Filtration | |
| 570-166496-3 MSD | Outfall002_20231231_Comp_F | Dissolved | Water | Filtration | |

Analysis Batch: 398530

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-------------------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total Recoverable | Water | 200.8 | 397881 |
| MB 570-397881/1-A | Method Blank | Total Recoverable | Water | 200.8 | 397881 |
| LCS 570-397881/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 | 397881 |
| LCSD 570-397881/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 | 397881 |
| 570-166496-1 MS | Outfall002_20231231_Comp | Total Recoverable | Water | 200.8 | 397881 |
| 570-166496-1 MSD | Outfall002_20231231_Comp | Total Recoverable | Water | 200.8 | 397881 |

Analysis Batch: 398572

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-166496-3 | Outfall002_20231231_Comp_F | Dissolved | Water | 200.8 | 398325 |
| MB 570-398325/1-A | Method Blank | Dissolved | Water | 200.8 | 398325 |
| LCS 570-398325/2-A | Lab Control Sample | Dissolved | Water | 200.8 | 398325 |
| LCSD 570-398325/3-A | Lab Control Sample Dup | Dissolved | Water | 200.8 | 398325 |
| 570-166496-3 MS | Outfall002_20231231_Comp_F | Dissolved | Water | 200.8 | 398325 |
| 570-166496-3 MSD | Outfall002_20231231_Comp_F | Dissolved | Water | 200.8 | 398325 |

Filtration Batch: 399609

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|----------------------------|-----------|--------|------------|------------|
| 570-166496-3 | Outfall002_20231231_Comp_F | Dissolved | Water | Filtration | |
| MB 570-399609/1-B | Method Blank | Dissolved | Water | Filtration | |

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QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Metals (Continued)

Filtration Batch: 399609 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|------------|------------|
| LCS 570-399609/2-B | Lab Control Sample | Dissolved | Water | Filtration | |
| LCSD 570-399609/3-B | Lab Control Sample Dup | Dissolved | Water | Filtration | |
| 570-166496-3 MS | Outfall002_20231231_Comp_F | Dissolved | Water | Filtration | |
| 570-166496-3 MSD | Outfall002_20231231_Comp_F | Dissolved | Water | Filtration | |

Prep Batch: 399656

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-166496-3 | Outfall002_20231231_Comp_F | Dissolved | Water | 245.1 | 399609 |
| MB 570-399609/1-B | Method Blank | Dissolved | Water | 245.1 | 399609 |
| LCS 570-399609/2-B | Lab Control Sample | Dissolved | Water | 245.1 | 399609 |
| LCSD 570-399609/3-B | Lab Control Sample Dup | Dissolved | Water | 245.1 | 399609 |
| 570-166496-3 MS | Outfall002_20231231_Comp_F | Dissolved | Water | 245.1 | 399609 |
| 570-166496-3 MSD | Outfall002_20231231_Comp_F | Dissolved | Water | 245.1 | 399609 |

Analysis Batch: 399960

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-166496-3 | Outfall002_20231231_Comp_F | Dissolved | Water | 245.1 | 399656 |
| MB 570-399609/1-B | Method Blank | Dissolved | Water | 245.1 | 399656 |
| LCS 570-399609/2-B | Lab Control Sample | Dissolved | Water | 245.1 | 399656 |
| LCSD 570-399609/3-B | Lab Control Sample Dup | Dissolved | Water | 245.1 | 399656 |
| 570-166496-3 MS | Outfall002_20231231_Comp_F | Dissolved | Water | 245.1 | 399656 |
| 570-166496-3 MSD | Outfall002_20231231_Comp_F | Dissolved | Water | 245.1 | 399656 |

Prep Batch: 399987

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 245.1 | |
| MB 570-399987/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 570-399987/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 570-399987/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 570-166496-1 MS | Outfall002_20231231_Comp | Total/NA | Water | 245.1 | |
| 570-166496-1 MSD | Outfall002_20231231_Comp | Total/NA | Water | 245.1 | |

Analysis Batch: 400677

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 245.1 | 399987 |
| MB 570-399987/1-A | Method Blank | Total/NA | Water | 245.1 | 399987 |
| LCS 570-399987/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 399987 |
| LCSD 570-399987/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 399987 |
| 570-166496-1 MS | Outfall002_20231231_Comp | Total/NA | Water | 245.1 | 399987 |
| 570-166496-1 MSD | Outfall002_20231231_Comp | Total/NA | Water | 245.1 | 399987 |

General Chemistry

Prep Batch: 398002

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | BOD Prep | |
| USB 570-398002/1-A | Method Blank | Total/NA | Water | BOD Prep | |
| LCS 570-398002/3-A | Lab Control Sample | Total/NA | Water | BOD Prep | |

QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

General Chemistry

Analysis Batch: 398050

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | SM 2130B | |
| LCSSRM 570-398050/1 | Lab Control Sample | Total/NA | Water | SM 2130B | |
| LCSSRM 570-398050/2 | Lab Control Sample | Total/NA | Water | SM 2130B | |
| LCSSRM 570-398050/3 | Lab Control Sample | Total/NA | Water | SM 2130B | |

Analysis Batch: 398152

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | SM 2540C | |
| MB 570-398152/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 570-398152/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 570-398152/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |

Analysis Batch: 398571

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | Kelada 01 | |
| MB 570-398571/11 | Method Blank | Total/NA | Water | Kelada 01 | |
| LCS 570-398571/12 | Lab Control Sample | Total/NA | Water | Kelada 01 | |
| LCSD 570-398571/13 | Lab Control Sample Dup | Total/NA | Water | Kelada 01 | |
| MRL 570-398571/10 | Lab Control Sample | Total/NA | Water | Kelada 01 | |

Analysis Batch: 398798

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | SM 2540D | |
| MB 570-398798/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 570-398798/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 570-398798/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

Prep Batch: 398843

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | SM 5540C | |
| MB 570-398843/5-A | Method Blank | Total/NA | Water | SM 5540C | |
| LCS 570-398843/6-A | Lab Control Sample | Total/NA | Water | SM 5540C | |
| LCSD 570-398843/7-A | Lab Control Sample Dup | Total/NA | Water | SM 5540C | |

Analysis Batch: 398861

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | SM 5540C | 398843 |
| MB 570-398843/5-A | Method Blank | Total/NA | Water | SM 5540C | 398843 |
| LCS 570-398843/6-A | Lab Control Sample | Total/NA | Water | SM 5540C | 398843 |
| LCSD 570-398843/7-A | Lab Control Sample Dup | Total/NA | Water | SM 5540C | 398843 |

Analysis Batch: 399293

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | SM 5210B | 398002 |
| USB 570-398002/1-A | Method Blank | Total/NA | Water | SM 5210B | 398002 |
| LCS 570-398002/3-A | Lab Control Sample | Total/NA | Water | SM 5210B | 398002 |

Prep Batch: 400021

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|-----------------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | Distill/Ammonia | |
| MB 570-400021/5-A | Method Blank | Total/NA | Water | Distill/Ammonia | |

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QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

General Chemistry (Continued)

Prep Batch: 400021 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|-----------------|------------|
| LCS 570-400021/6-A | Lab Control Sample | Total/NA | Water | Distill/Ammonia | |
| LCSD 570-400021/7-A | Lab Control Sample Dup | Total/NA | Water | Distill/Ammonia | |

Analysis Batch: 400382

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 350.1 | 400021 |
| MB 570-400021/5-A | Method Blank | Total/NA | Water | 350.1 | 400021 |
| LCS 570-400021/6-A | Lab Control Sample | Total/NA | Water | 350.1 | 400021 |
| LCSD 570-400021/7-A | Lab Control Sample Dup | Total/NA | Water | 350.1 | 400021 |

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- 14
- 15

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Client Sample ID: Outfall002_20231231_Comp

Lab Sample ID: 570-166496-1

Date Collected: 12/31/23 07:25

Matrix: Water

Date Received: 01/02/24 16:51

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------------|------------|-----------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Prep | 625 | | | 1045 mL | 2 mL | 398777 | 01/05/24 12:37 | BP | EET CAL 4 |
| Total/NA | Analysis | 625.1 SIM | | 1 | 1 mL | 1 mL | 399131 | 01/08/24 19:11 | ULLI | EET CAL 4 |
| Instrument ID: GCMSEEE | | | | | | | | | | |
| Total/NA | Prep | 608 | RA2 | | 1500 mL | 1 mL | 398819 | 01/05/24 14:44 | OAJ3 | EET CAL 4 |
| Total/NA | Analysis | 608.3 | RA2 | 1 | 1 mL | 1 mL | 400464 | 01/12/24 11:50 | N5Y3 | EET CAL 4 |
| Instrument ID: GC52A | | | | | | | | | | |
| Total/NA | Analysis | 300.0 | | 2 | 4 mL | 4 mL | 397816 | 01/03/24 14:16 | YO8L | EET CAL 4 |
| Instrument ID: IC7 | | | | | | | | | | |
| Total/NA | Analysis | 300.0 | | 2 | 4 mL | 4 mL | 397818 | 01/03/24 14:16 | YO8L | EET CAL 4 |
| Instrument ID: IC7 | | | | | | | | | | |
| Total/NA | Analysis | 300.0 | DL | 10 | 4 mL | 4 mL | 397818 | 01/03/24 16:47 | YO8L | EET CAL 4 |
| Instrument ID: IC7 | | | | | | | | | | |
| Total/NA | Analysis | 314.0 | | 1 | 4 mL | 4 mL | 398390 | 01/04/24 18:40 | M5Z3 | EET CAL 4 |
| Instrument ID: IC13 | | | | | | | | | | |
| Total/NA | Analysis | NO2NO3 Calc | | 1 | | | 400782 | 01/03/24 14:16 | U3RS | EET CAL 4 |
| Instrument ID: IC7 | | | | | | | | | | |
| Total Recoverable | Prep | 200.8 | | | 50 mL | 50 mL | 397881 | 01/03/24 07:04 | JP8N | EET CAL 4 |
| Total Recoverable | Analysis | 200.8 | | 1 | | | 398530 | 01/04/24 15:07 | P1R | EET CAL 4 |
| Instrument ID: ICPMS10 | | | | | | | | | | |
| Total/NA | Prep | 245.1 | | | 25 g | 50 mL | 399987 | 01/10/24 13:26 | ECX6 | EET CAL 4 |
| Total/NA | Analysis | 245.1 | | 1 | | | 400677 | 01/12/24 12:31 | RL6Q | EET CAL 4 |
| Instrument ID: HG8 | | | | | | | | | | |
| Total/NA | Prep | Distill/Ammonia | | | 5 mL | 5 mL | 400021 | 01/11/24 08:34 | UXCH | EET CAL 4 |
| Total/NA | Analysis | 350.1 | | 1 | 5 mL | 5 mL | 400382 | 01/11/24 12:23 | UXCH | EET CAL 4 |
| Instrument ID: ACA2 | | | | | | | | | | |
| Total/NA | Analysis | Kelada 01 | | 1 | 8 mL | 8 mL | 398571 | 01/04/24 16:56 | GG0B | EET CAL 4 |
| Instrument ID: LACHAT01 | | | | | | | | | | |
| Total/NA | Analysis | SM 2130B | | 1 | | | 398050 | 01/03/24 12:29 | ZVB7 | EET CAL 4 |
| Instrument ID: TUR5 | | | | | | | | | | |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 1000 mL | 398152 | 01/03/24 16:32 | ZL7L | EET CAL 4 |
| Instrument ID: BAL100 | | | | | | | | | | |
| Total/NA | Analysis | SM 2540D | | 1 | 1000 mL | 1000 mL | 398798 | 01/05/24 13:58 | JB | EET CAL 4 |
| Instrument ID: NOEQUIP | | | | | | | | | | |
| Total/NA | Prep | BOD Prep | | | | | 398002 | 01/03/24 10:51 | U7UR | EET CAL 4 |
| Total/NA | Analysis | SM 5210B | | 1 | 300 mL | 300 mL | 399293 | 01/08/24 15:12 | U7UR | EET CAL 4 |
| Instrument ID: BOD3 | | | | | | | | | | |
| Total/NA | Prep | SM 5540C | | | 100 mL | 100 mL | 398843 | 01/05/24 16:04 | TXA8 | EET CAL 4 |
| Total/NA | Analysis | SM 5540C | | 1 | 100 mL | 100 mL | 398861 | 01/05/24 16:34 | TXA8 | EET CAL 4 |
| Instrument ID: UV8 | | | | | | | | | | |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Client Sample ID: Outfall002_20231231_Comp_F

Lab Sample ID: 570-166496-3

Date Collected: 12/31/23 07:25

Matrix: Water

Date Received: 01/02/24 16:51

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|------------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Dissolved | Filtration | Filtration | | | 50 mL | 50 mL | 398325 | 01/04/24 08:56 | JP8N | EET CAL 4 |
| Dissolved | Analysis | 200.8 | | 1 | | | 398572 | 01/04/24 17:25 | P1R | EET CAL 4 |
| Instrument ID: ICPMS09 | | | | | | | | | | |
| Dissolved | Filtration | Filtration | | | 25 mL | 25 mL | 399609 | 01/09/24 13:29 | JP8N | EET CAL 4 |
| Dissolved | Prep | 245.1 | | | 25 mL | 50 mL | 399656 | 01/09/24 15:13 | EV3M | EET CAL 4 |
| Dissolved | Analysis | 245.1 | | 1 | | | 399960 | 01/10/24 13:44 | ECX6 | EET CAL 4 |
| Instrument ID: HG9 | | | | | | | | | | |

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| <u>Authority</u> | <u>Program</u> | <u>Identification Number</u> | <u>Expiration Date</u> |
|------------------|--|------------------------------|------------------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

Method Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

| Method | Method Description | Protocol | Laboratory |
|-----------------|--|----------|------------|
| 625.1 SIM | Semivolatile Organic Compounds GC/MS (SIM) | EPA | EET CAL 4 |
| 608.3 | Organochlorine Pesticides in Water | EPA | EET CAL 4 |
| 300.0 | Anions, Ion Chromatography | EPA | EET CAL 4 |
| 314.0 | Perchlorate (IC) | EPA | EET CAL 4 |
| NO2NO3 Calc | Nitrogen, Nitrate-Nitrite | EPA | EET CAL 4 |
| 200.8 | Metals (ICP/MS) | EPA | EET CAL 4 |
| 245.1 | Mercury (CVAA) | EPA | EET CAL 4 |
| 350.1 | Nitrogen, Ammonia | EPA | EET CAL 4 |
| Kelada 01 | Cyanide, Total, Acid Dissociable and Thiocyanate | EPA | EET CAL 4 |
| SM 2130B | Turbidity | SM | EET CAL 4 |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET CAL 4 |
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET CAL 4 |
| SM 5210B | BOD, 5-Day | SM | EET CAL 4 |
| SM 5540C | Methylene Blue Active Substances (MBAS) | SM | EET CAL 4 |
| 200.8 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 245.1 | Preparation, Mercury | EPA | EET CAL 4 |
| 608 | Liquid-Liquid Extraction (Separatory Funnel) | EPA | EET CAL 4 |
| 625 | Liquid-Liquid Extraction | EPA | EET CAL 4 |
| BOD Prep | Preparation, BOD | SM | EET CAL 4 |
| Distill/Ammonia | Distillation, Ammonia | None | EET CAL 4 |
| Filtration | Sample Filtration | None | EET CAL 4 |
| SM 5540C | Preparation, Methylene Blue Active Substances (MBAS) | SM | EET CAL 4 |

Protocol References:

- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|----------------------------|--------|----------------|----------------|
| 570-166496-1 | Outfall002_20231231_Comp | Water | 12/31/23 07:25 | 01/02/24 16:51 |
| 570-166496-3 | Outfall002_20231231_Comp_F | Water | 12/31/23 07:25 | 01/02/24 16:51 |

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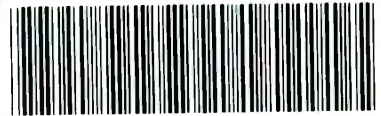
15

CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall (001, 002, 011, 018) Outfall 002 Comp | | | | | | ANALYSIS REQUIRED | | | | | | | | | | | | | | | | |
|---|--------------------------------|---------------------|---|-----------------|------------|--------------|----------|--------|---|--------------------------------------|---|-------------------------------------|--|---------------------------------|-----------------------|------------------|------------------|--|---|---|----------|--|------|---------------------------------|------------------------------------|
| Eurofins Calscience Project Manager: Videndra Patel 2341 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | | Project Manager: Katherine Miller 520.289.8406, 520.904.6944 (cell) Field Manager: Mark Dominick 978.234.5433, 818.599.0702 (cell) | | | | | | Comments | | | | | | | | | | | | | | | | |
| Eurofins Calscience's services under this COC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | Sampler: Adren Mobeka | | | | | | Total Recoverable Metals: (E200.8): Zn (E200.8): Cu, Pb, Cd, Se TOC (total all temperature) (E10100) BOD5 (20 degrees C) (E405.1)(SM210B_BODCalc) Surfactants (MBAS) (SM5540C/E425.1) Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) Turbidity, TDS (SM2540C/E180.1) TSS (160.2 (SM2540D)) Ammonia-N (50.2) alpha-BHC (E608) 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E626) Total Recoverable Metals: Mercury (E2045.1) Total Recoverable Metals: (E200.8): Mn, Fe | | | | | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Recoverable Metals: (E200.8): Zn (E200.8): Cu, Pb, Cd, Se | TOC (total all temperature) (E10100) | BOD5 (20 degrees C) (E405.1)(SM210B_BODCalc) | Surfactants (MBAS) (SM5540C/E425.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2 (SM2540D)) | Ammonia-N (50.2) | alpha-BHC (E608) | 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E626) | Total Recoverable Metals: Mercury (E2045.1) | Total Recoverable Metals: (E200.8): Mn, Fe | Comments | | | | |
| Outfall 002 | Outfall002_20231231_Comp | 12/31/2023 10725 | WM | 500 mL Poly | 1 | HNO3 | 90 | Yes | X | | | | | | | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | | X | | | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 115 | No | | | | X | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | | X | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | X | | | | | | | | | | 48 hours Holding Time NO2 & NO3 | |
| | | | WM | 500 mL Poly | 1 | None | 150 | No | | | | | | | X | | | | | | | | | | 48 hour holding time for turbidity |
| | | | WM | 500 mL Poly | 1 | H2SO4 | 160 | No | | | | | | | | | X | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | X | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | X | | | | |
| | | | WM | 1L Poly | 1 | None | 185 | No | | | | | | | | | X | | | | | | | | |
| 2 | Outfall002_20231231_Comp_Extra | 12/31/2023 10725 | WM | 1 L Glass Amber | 2 | None | 110 | No | | | | | | | | | | | | | | | Hold | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | | H | | | | | | | | | | | Hold | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | H | | | | | | | | | | Hold | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | H | | | | | Hold | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | H | | | | Hold | |

Legend: C=Conditional, R=Routine

| | | |
|---|---|--|
| Relinquished By: <i>Mark Dominick</i> Date/Time: 1-2-24 Company: H.A | Received By: <i>Am</i> Date/Time: 1/2/24 1300 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <u>X</u> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>je</i> Date/Time: 1/2/24 16:51 Company: <i>ec</i> | Received By: <i>Mark Dominick</i> Date/Time: 1/2/24 1651 | Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <u>X</u> |



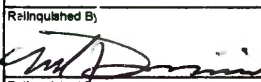

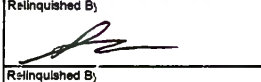

570-166496 Chain of Custody

0.7/1.1 0.6/0.8
0.4/0.6 SC14

CHAIN OF CUSTODY FORM

| Client Name/Address: | | | | | | | | | | Project: | | | | | | | | | | ANALYSIS REQUIRED | | | | | | | | | |
|---|----------------------------|---------------------|---------------|---------------------------------|------------|--------------|------------|----------|--|--|--|--|--|--|--|--|--|---|--|-------------------|--|--|--|--|--|--|--|--|--|
| Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | | | | | | | | | Boeing-SSFL NPDES Permit 2023 Routine Outfall [001, 002, 011, 018] Outfall 002 Comp | | | | | | | | | | R R R R R C | | | | | | | | | |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | | | | | | | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (c ell) Field Manager: Mark Dominik 978.234.5033, 818.599.0702 (c ell) | | | | | | | | | | Comments | | | | | | | | | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2023-2-2--Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | | | | | | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (c ell) Field Manager: Mark Dominik 978.234.5033, 818.599.0702 (c ell) | | | | | | | | | | Comments | | | | | | | | | |
| Sampler: Adrien Mobeka | | | | | | | | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (c ell) Field Manager: Mark Dominik 978.234.5033, 818.599.0702 (c ell) | | | | | | | | | | Comments | | | | | | | | | |
| Sample Description | Sample ID | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Dissolved Metals: (E200.8): Cu, Pb, Cd, Se | Cyanide (SM4500-CN-E / E335.2) | Gross Alpha (E900.0), Gross Beta (E900.0), Tritium (H-3) (E908.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, Cs-137 (E901.0 or E901.1) | Total Dissolved Metals: Mercury (E245.1) | Total Dissolved Metals: (E200.8): Mn, Fe | | | | | | | | | | | | | | | | |
| Outfall 002 | Outfall002_20231231_Comp_F | 12/31/2023 10725 | WM1 | 1L Poly | 1 | None | 200 | Yes | X | | | | | | | | | | | | | | | | | | | | |
| | | | WM1 | borosilicate vials | 2 | None | 320 | No | | | | X | | | | | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. | | | | | | | | | | | |
| | Outfall002_20231231_Comp | 12/31/2023 10725 | WM1 | 500 mL Poly | 1 | NaOH | 220 | No | | X | | | | | | | | | | | | | | | | | | | |
| | | | WM1 | 2.5 Gal Cube 1 L Glass Amber | 1 1 | None None | 225 230 | No No | | | | X | | | | | | Unfiltered and unpreserved analysis. Separate RAD onto another work order. Analyze duplicate, not MS/MSD. | | | | | | | | | | | |

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi Annual

| | |
|--|---|
| Relinquished By:  Date/Time: 1-2-2024 12:30 Company: H&A | Received By:  Date/Time: 1/2/24 1300 |
| Relinquished By:  Date/Time: 1/2/24 16:51 Company: EC | Received By:  Date/Time: 1/2/24 1651 |

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-166496-1

Login Number: 166496

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 2/7/2024 12:02:09 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 002 - Comp

JOB NUMBER

570-166496-2

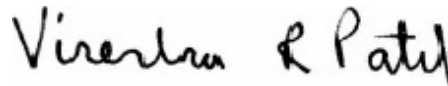
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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2/7/2024 12:02:09 PM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Qualifiers

Dioxin

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| MB | Analyte present in the method blank |
| q | The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| ♠ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Job ID: 570-166496-2

Eurofins Calscience

Job Narrative 570-166496-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 1/2/2024 4:51 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.6°C, 0.8°C and 1.1°C

Dioxin

Method 1613B: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD associated with the following samples run on instrument 11D2 exceeded this criteria: (CCV 320-738395/2) and (MB 320-735185/1-A). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Calscience

Detection Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Client Sample ID: Outfall002_20231231_Comp

Lab Sample ID: 570-166496-1

| Analyte | Result | Qualifier | RL | EDL | Unit | Dil Fac | D | Method | Prep Type |
|---------------------|-----------|-----------|----------|-----------|------|---------|---|--------|-----------|
| 1,2,3,4,7,8-HxCDD | 0.0000056 | J,DX MB | 0.000048 | 0.0000016 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,6,7,8-HxCDD | 0.0000052 | J,DX MB | 0.000048 | 0.0000017 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,7,8,9-HxCDD | 0.0000058 | J,DX MB | 0.000048 | 0.0000016 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,6,7,8-HxCDF | 0.0000032 | J,DX q MB | 0.000048 | 0.0000010 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,7,8,9-HxCDF | 0.0000036 | J,DX q MB | 0.000048 | 0.0000010 | ug/L | 1 | | 1613B | Total/NA |
| 2,3,4,6,7,8-HxCDF | 0.0000034 | J,DX q MB | 0.000048 | 0.0000009 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,4,6,7,8-HpCDD | 0.0000088 | J,DX MB | 0.000048 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,4,6,7,8-HpCDF | 0.0000071 | J,DX MB | 0.000048 | 0.0000015 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,4,7,8,9-HpCDF | 0.0000064 | J,DX q MB | 0.000048 | 0.0000016 | ug/L | 1 | | 1613B | Total/NA |
| OCDD | 0.000054 | J,DX MB | 0.000097 | 0.0000026 | ug/L | 1 | | 1613B | Total/NA |
| OCDF | 0.000015 | J,DX MB | 0.000097 | 0.0000017 | ug/L | 1 | | 1613B | Total/NA |
| Total HxCDD | 0.000017 | J,DX MB | 0.000048 | 0.0000016 | ug/L | 1 | | 1613B | Total/NA |
| Total HxCDF | 0.000010 | J,DX q MB | 0.000048 | 0.0000009 | ug/L | 1 | | 1613B | Total/NA |
| Total HpCDD | 0.000012 | J,DX MB | 0.000048 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| Total HpCDF | 0.000014 | J,DX q MB | 0.000048 | 0.0000015 | ug/L | 1 | | 1613B | Total/NA |

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS)

Client Sample ID: Outfall002_20231231_Comp

Lab Sample ID: 570-166496-1

Date Collected: 12/31/23 07:25

Matrix: Water

Date Received: 01/02/24 16:51

| Analyte | Result | Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------|------------------|------------------|---------------|----------|------|---|-----------------|-----------------|----------------|
| 2,3,7,8-TCDD | ND | | 0.000097 | 0.000011 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 2,3,7,8-TCDF | ND | | 0.000097 | 0.000001 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,7,8-PeCDD | ND | | 0.000048 | 0.000014 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,7,8-PeCDF | ND | | 0.000048 | 0.000008 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 2,3,4,7,8-PeCDF | ND | | 0.000048 | 0.000009 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,4,7,8-HxCDD | 0.000056 | J,DX MB | 0.000048 | 0.000016 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,6,7,8-HxCDD | 0.000052 | J,DX MB | 0.000048 | 0.000017 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,7,8,9-HxCDD | 0.000058 | J,DX MB | 0.000048 | 0.000016 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,4,7,8-HxCDF | ND | | 0.000048 | 0.000012 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,6,7,8-HxCDF | 0.000032 | J,DX q MB | 0.000048 | 0.000010 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,7,8,9-HxCDF | 0.000036 | J,DX q MB | 0.000048 | 0.000010 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 2,3,4,6,7,8-HxCDF | 0.000034 | J,DX q MB | 0.000048 | 0.000009 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,4,6,7,8-HpCDD | 0.000088 | J,DX MB | 0.000048 | 0.000003 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,4,6,7,8-HpCDF | 0.000071 | J,DX MB | 0.000048 | 0.000015 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 1,2,3,4,7,8,9-HpCDF | 0.000064 | J,DX q MB | 0.000048 | 0.000016 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| OCDD | 0.000054 | J,DX MB | 0.000097 | 0.000026 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| OCDF | 0.000015 | J,DX MB | 0.000097 | 0.000017 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| Total TCDD | ND | | 0.000097 | 0.000011 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| Total TCDF | ND | | 0.000097 | 0.000001 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| Total PeCDD | ND | | 0.000048 | 0.000014 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| Total PeCDF | ND | | 0.000048 | 0.000008 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| Total HxCDD | 0.000017 | J,DX MB | 0.000048 | 0.000016 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| Total HxCDF | 0.000010 | J,DX q MB | 0.000048 | 0.000009 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| Total HpCDD | 0.000012 | J,DX MB | 0.000048 | 0.000003 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| Total HpCDF | 0.000014 | J,DX q MB | 0.000048 | 0.000015 | ug/L | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| Isotope Dilution | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 13C-2,3,7,8-TCDD | 37 | | 25 - 164 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-2,3,7,8-TCDF | 37 | | 24 - 169 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-1,2,3,7,8-PeCDD | 39 | | 25 - 181 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-1,2,3,7,8-PeCDF | 38 | | 24 - 185 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-2,3,4,7,8-PeCDF | 38 | | 21 - 178 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-1,2,3,4,7,8-HxCDD | 36 | | 32 - 141 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-1,2,3,6,7,8-HxCDD | 34 | | 28 - 130 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-1,2,3,4,7,8-HxCDF | 33 | | 26 - 152 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-1,2,3,6,7,8-HxCDF | 34 | | 26 - 123 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-1,2,3,7,8,9-HxCDF | 35 | | 29 - 147 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-2,3,4,6,7,8-HxCDF | 36 | | 28 - 136 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDD | 41 | | 23 - 140 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDF | 35 | | 28 - 143 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-1,2,3,4,7,8,9-HpCDF | 42 | | 26 - 138 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-OCDD | 38 | | 17 - 157 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |
| 13C-OCDF | 41 | | 17 - 157 | | | | 01/22/24 08:24 | 02/02/24 04:22 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

| <u>Surrogate</u> | <u>%Recovery</u> | <u>Qualifier</u> | <u>Limits</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Dil Fac</u> |
|--------------------|------------------|------------------|---------------|-----------------|-----------------|----------------|
| 37Cl4-2,3,7,8-TCDD | 70 | | 35 - 197 | 01/22/24 08:24 | 02/02/24 04:22 | 1 |

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Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | 37TCDD (35-197) |
|------------------------|--------------------------|--------------------|
| 570-166496-1 | Outfall002_20231231_Comp | 70 |
| MB 320-735185/1-A | Method Blank | 79 |
| MB 320-735185/1-A - RA | Method Blank | 95 |

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | 37TCDD (31-191) |
|---------------------|------------------------|--------------------|
| LCS 320-735185/2-A | Lab Control Sample | 65 |
| LCSD 320-735185/3-A | Lab Control Sample Dup | 75 |

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCDD (25-164) | TCDF (24-169) | PeCDD (25-181) | PeCDF (24-185) | PeCF (21-178) | HxCDD (32-141) | HxDD (28-130) | HxCDF (26-152) |
|------------------------|--------------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| 570-166496-1 | Outfall002_20231231_Comp | 37 | 37 | 39 | 38 | 38 | 36 | 34 | 33 |
| MB 320-735185/1-A | Method Blank | 49 | 48 | 57 | 53 | 53 | 54 | 51 | 52 |
| MB 320-735185/1-A - RA | Method Blank | | 39 | | | | | | |

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | HxCDF (26-123) | HxCF (29-147) | 13CHxCF (28-136) | HpCDD (23-140) | HpCDF (28-143) | HpCDF2 (26-138) | OCDD (17-157) | OCDF (17-157) |
|------------------------|--------------------------|-------------------|------------------|---------------------|-------------------|-------------------|--------------------|------------------|------------------|
| 570-166496-1 | Outfall002_20231231_Comp | 34 | 35 | 36 | 41 | 35 | 42 | 38 | 41 |
| MB 320-735185/1-A | Method Blank | 54 | 53 | 53 | 63 | 54 | 63 | 61 | 62 |
| MB 320-735185/1-A - RA | Method Blank | | | | | | | | |

Surrogate Legend

- TCDD = 13C-2,3,7,8-TCDD
- TCDF = 13C-2,3,7,8-TCDF
- PeCDD = 13C-1,2,3,7,8-PeCDD
- PeCDF = 13C-1,2,3,7,8-PeCDF
- PeCF = 13C-2,3,4,7,8-PeCDF
- HxCDD = 13C-1,2,3,4,7,8-HxCDD
- HxDD = 13C-1,2,3,6,7,8-HxCDD
- HxCDF = 13C-1,2,3,4,7,8-HxCDF
- HxCDF = 13C-1,2,3,6,7,8-HxCDF
- HxCF = 13C-1,2,3,7,8,9-HxCDF
- 13CHxCF = 13C-2,3,4,6,7,8-HxCDF
- HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
- HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
- HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
- OCDD = 13C-OCDD
- OCDF = 13C-OCDF

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCDD (20-175) | TCDF (22-152) | PeCDD (21-227) | PeCDF (21-192) | PeCF (13-328) | HxCDD (21-193) | HxDD (25-163) | HxCDF (19-202) |
|---------------------|------------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| LCS 320-735185/2-A | Lab Control Sample | 45 | 44 | 49 | 46 | 48 | 45 | 43 | 42 |
| LCSD 320-735185/3-A | Lab Control Sample Dup | 45 | 43 | 50 | 47 | 48 | 46 | 45 | 44 |

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | HxCDF (21-159) | HxCF (17-205) | 13CHxCF (22-176) | HpCDD (26-166) | HpCDF (21-158) | HpCDF2 (20-186) | OCDD (13-199) | OCDF (13-199) |
|---------------------|------------------------|-------------------|------------------|---------------------|-------------------|-------------------|--------------------|------------------|------------------|
| LCS 320-735185/2-A | Lab Control Sample | 44 | 44 | 45 | 54 | 46 | 55 | 53 | 55 |
| LCSD 320-735185/3-A | Lab Control Sample Dup | 45 | 44 | 46 | 53 | 46 | 52 | 48 | 51 |

Surrogate Legend

- TCDD = 13C-2,3,7,8-TCDD
- TCDF = 13C-2,3,7,8-TCDF
- PeCDD = 13C-1,2,3,7,8-PeCDD
- PeCDF = 13C-1,2,3,7,8-PeCDF
- PeCF = 13C-2,3,4,7,8-PeCDF
- HxCDD = 13C-1,2,3,4,7,8-HxCDD
- HxDD = 13C-1,2,3,6,7,8-HxCDD

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Isotope Dilution Summary

Client: Haley & Aldrich, Inc.

Job ID: 570-166496-2

Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

HxCDF = 13C-1,2,3,4,7,8-HxCDF

HxDF = 13C-1,2,3,6,7,8-HxCDF

HxCF = 13C-1,2,3,7,8,9-HxCDF

13CHxCF = 13C-2,3,4,6,7,8-HxCDF

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD

HpCDF = 13C-1,2,3,4,6,7,8-HpCDF

HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF

OCDD = 13C-OCDD

OCDF = 13C-OCDF

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-735185/1-A
Matrix: Water
Analysis Batch: 737902

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735185

| Analyte | MB | MB | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|------------|-----------|----------|-----------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| 2,3,7,8-TCDD | ND | | 0.000010 | 0.0000010 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 1,2,3,7,8-PeCDD | 0.00000332 | J,DX | 0.000050 | 0.0000013 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 1,2,3,7,8-PeCDF | 0.00000346 | J,DX | 0.000050 | 0.0000007 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| | | | | 7 | | | | | |
| 2,3,4,7,8-PeCDF | 0.00000310 | J,DX | 0.000050 | 0.0000008 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| | | | | 7 | | | | | |
| 1,2,3,4,7,8-HxCDD | 0.00000667 | J,DX | 0.000050 | 0.0000012 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 1,2,3,6,7,8-HxCDD | 0.00000555 | J,DX | 0.000050 | 0.0000013 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 1,2,3,7,8,9-HxCDD | 0.00000760 | J,DX | 0.000050 | 0.0000012 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 1,2,3,4,7,8-HxCDF | 0.00000542 | J,DX | 0.000050 | 0.0000016 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 1,2,3,6,7,8-HxCDF | 0.00000380 | J,DX | 0.000050 | 0.0000015 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 1,2,3,7,8,9-HxCDF | 0.00000632 | J,DX | 0.000050 | 0.0000015 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 2,3,4,6,7,8-HxCDF | 0.00000446 | J,DX | 0.000050 | 0.0000014 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 1,2,3,4,6,7,8-HpCDD | 0.00000938 | J,DX | 0.000050 | 0.0000009 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| | | | | 3 | | | | | |
| 1,2,3,4,6,7,8-HpCDF | 0.0000160 | J,DX | 0.000050 | 0.0000014 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 1,2,3,4,7,8,9-HpCDF | 0.00000769 | J,DX | 0.000050 | 0.0000015 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| OCDD | 0.0000342 | J,DX | 0.00010 | 0.0000023 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| OCDF | 0.0000200 | J,DX | 0.00010 | 0.0000019 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| Total TCDD | 0.00000559 | J,DX q | 0.000010 | 0.0000010 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| Total TCDF | 0.00000194 | J,DX | 0.000010 | 0.0000002 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| | | | | 5 | | | | | |
| Total PeCDD | 0.00000554 | J,DX q | 0.000050 | 0.0000013 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| Total PeCDF | 0.00000656 | J,DX | 0.000050 | 0.0000007 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| | | | | 7 | | | | | |
| Total HxCDD | 0.0000198 | J,DX | 0.000050 | 0.0000012 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| Total HxCDF | 0.0000200 | J,DX | 0.000050 | 0.0000014 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| Total HpCDD | 0.0000126 | J,DX | 0.000050 | 0.0000009 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| | | | | 3 | | | | | |
| Total HpCDF | 0.0000237 | J,DX | 0.000050 | 0.0000014 | ug/L | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| | | | | 3 | | | | | |
| | | | | 3 | | | | | |
| Isotope Dilution | MB | MB | Limits | | | | Prepared | Analyzed | Dil Fac |
| 13C-2,3,7,8-TCDD | 49 | | 25 - 164 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-2,3,7,8-TCDF | 48 | | 24 - 169 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-1,2,3,7,8-PeCDD | 57 | | 25 - 181 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-1,2,3,7,8-PeCDF | 53 | | 24 - 185 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-2,3,4,7,8-PeCDF | 53 | | 21 - 178 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-1,2,3,4,7,8-HxCDD | 54 | | 32 - 141 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-1,2,3,6,7,8-HxCDD | 51 | | 28 - 130 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-1,2,3,4,7,8-HxCDF | 52 | | 26 - 152 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-1,2,3,6,7,8-HxCDF | 54 | | 26 - 123 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-1,2,3,7,8,9-HxCDF | 53 | | 29 - 147 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-2,3,4,6,7,8-HxCDF | 53 | | 28 - 136 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDD | 63 | | 23 - 140 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDF | 54 | | 28 - 143 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-1,2,3,4,7,8,9-HpCDF | 63 | | 26 - 138 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-OCDD | 61 | | 17 - 157 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |
| 13C-OCDF | 62 | | 17 - 157 | | | | 01/22/24 08:24 | 02/02/24 01:58 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-735185/1-A
Matrix: Water
Analysis Batch: 737902

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735185

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 37Cl4-2,3,7,8-TCDD | 79 | | 35 - 197 | 01/22/24 08:24 | 02/02/24 01:58 | 1 |

Lab Sample ID: LCS 320-735185/2-A
Matrix: Water
Analysis Batch: 737902

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735185

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | Limits | %Rec |
|---------------------|-------------|------------|---------------|------|---|------|----------|------|
| | | | | | | | | |
| 2,3,7,8-TCDD | 0.000200 | 0.000208 | | ug/L | | 104 | 67 - 158 | |
| 2,3,7,8-TCDF | 0.000200 | 0.000218 | | ug/L | | 109 | 75 - 158 | |
| 1,2,3,7,8-PeCDD | 0.00100 | 0.000996 | | ug/L | | 100 | 70 - 142 | |
| 1,2,3,7,8-PeCDF | 0.00100 | 0.00100 | | ug/L | | 100 | 80 - 134 | |
| 2,3,4,7,8-PeCDF | 0.00100 | 0.000996 | | ug/L | | 100 | 68 - 160 | |
| 1,2,3,4,7,8-HxCDD | 0.00100 | 0.000973 | | ug/L | | 97 | 70 - 164 | |
| 1,2,3,6,7,8-HxCDD | 0.00100 | 0.00104 | | ug/L | | 104 | 76 - 134 | |
| 1,2,3,7,8,9-HxCDD | 0.00100 | 0.00102 | | ug/L | | 102 | 64 - 162 | |
| 1,2,3,4,7,8-HxCDF | 0.00100 | 0.000974 | | ug/L | | 97 | 72 - 134 | |
| 1,2,3,6,7,8-HxCDF | 0.00100 | 0.000962 | | ug/L | | 96 | 84 - 130 | |
| 1,2,3,7,8,9-HxCDF | 0.00100 | 0.000948 | | ug/L | | 95 | 78 - 130 | |
| 2,3,4,6,7,8-HxCDF | 0.00100 | 0.000939 | | ug/L | | 94 | 70 - 156 | |
| 1,2,3,4,6,7,8-HpCDD | 0.00100 | 0.000934 | | ug/L | | 93 | 70 - 140 | |
| 1,2,3,4,6,7,8-HpCDF | 0.00100 | 0.00103 | | ug/L | | 103 | 82 - 122 | |
| 1,2,3,4,7,8,9-HpCDF | 0.00100 | 0.000964 | | ug/L | | 96 | 78 - 138 | |
| OCDD | 0.00200 | 0.00199 | | ug/L | | 100 | 78 - 144 | |
| OCDF | 0.00200 | 0.00185 | | ug/L | | 93 | 63 - 170 | |

| Isotope Dilution | LCS LCS | | Limits |
|-------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-2,3,7,8-TCDD | 45 | | 20 - 175 |
| 13C-2,3,7,8-TCDF | 44 | | 22 - 152 |
| 13C-1,2,3,7,8-PeCDD | 49 | | 21 - 227 |
| 13C-1,2,3,7,8-PeCDF | 46 | | 21 - 192 |
| 13C-2,3,4,7,8-PeCDF | 48 | | 13 - 328 |
| 13C-1,2,3,4,7,8-HxCDD | 45 | | 21 - 193 |
| 13C-1,2,3,6,7,8-HxCDD | 43 | | 25 - 163 |
| 13C-1,2,3,4,7,8-HxCDF | 42 | | 19 - 202 |
| 13C-1,2,3,6,7,8-HxCDF | 44 | | 21 - 159 |
| 13C-1,2,3,7,8,9-HxCDF | 44 | | 17 - 205 |
| 13C-2,3,4,6,7,8-HxCDF | 45 | | 22 - 176 |
| 13C-1,2,3,4,6,7,8-HpCDD | 54 | | 26 - 166 |
| 13C-1,2,3,4,6,7,8-HpCDF | 46 | | 21 - 158 |
| 13C-1,2,3,4,7,8,9-HpCDF | 55 | | 20 - 186 |
| 13C-OCDD | 53 | | 13 - 199 |
| 13C-OCDF | 55 | | 13 - 199 |

| Surrogate | LCS LCS | | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 37Cl4-2,3,7,8-TCDD | 65 | | 31 - 191 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-735185/3-A
Matrix: Water
Analysis Batch: 737902

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 735185

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| | | | | | | | | | |
| 2,3,7,8-TCDD | 0.000200 | 0.000211 | | ug/L | | 105 | 67 - 158 | 1 | 50 |
| 2,3,7,8-TCDF | 0.000200 | 0.000216 | | ug/L | | 108 | 75 - 158 | 1 | 50 |
| 1,2,3,7,8-PeCDD | 0.00100 | 0.00101 | | ug/L | | 101 | 70 - 142 | 1 | 50 |
| 1,2,3,7,8-PeCDF | 0.00100 | 0.00101 | | ug/L | | 101 | 80 - 134 | 1 | 50 |
| 2,3,4,7,8-PeCDF | 0.00100 | 0.00102 | | ug/L | | 102 | 68 - 160 | 2 | 50 |
| 1,2,3,4,7,8-HxCDD | 0.00100 | 0.000971 | | ug/L | | 97 | 70 - 164 | 0 | 50 |
| 1,2,3,6,7,8-HxCDD | 0.00100 | 0.00105 | | ug/L | | 105 | 76 - 134 | 1 | 50 |
| 1,2,3,7,8,9-HxCDD | 0.00100 | 0.00101 | | ug/L | | 101 | 64 - 162 | 1 | 50 |
| 1,2,3,4,7,8-HxCDF | 0.00100 | 0.000962 | | ug/L | | 96 | 72 - 134 | 1 | 50 |
| 1,2,3,6,7,8-HxCDF | 0.00100 | 0.000955 | | ug/L | | 96 | 84 - 130 | 1 | 50 |
| 1,2,3,7,8,9-HxCDF | 0.00100 | 0.000952 | | ug/L | | 95 | 78 - 130 | 0 | 50 |
| 2,3,4,6,7,8-HxCDF | 0.00100 | 0.000947 | | ug/L | | 95 | 70 - 156 | 1 | 50 |
| 1,2,3,4,6,7,8-HpCDD | 0.00100 | 0.000949 | | ug/L | | 95 | 70 - 140 | 2 | 50 |
| 1,2,3,4,6,7,8-HpCDF | 0.00100 | 0.00104 | | ug/L | | 104 | 82 - 122 | 1 | 50 |
| 1,2,3,4,7,8,9-HpCDF | 0.00100 | 0.000996 | | ug/L | | 100 | 78 - 138 | 3 | 50 |
| OCDD | 0.00200 | 0.00212 | | ug/L | | 106 | 78 - 144 | 6 | 50 |
| OCDF | 0.00200 | 0.00191 | | ug/L | | 95 | 63 - 170 | 3 | 50 |

| Isotope Dilution | LCSD LCSD | | Limits |
|-------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-2,3,7,8-TCDD | 45 | | 20 - 175 |
| 13C-2,3,7,8-TCDF | 43 | | 22 - 152 |
| 13C-1,2,3,7,8-PeCDD | 50 | | 21 - 227 |
| 13C-1,2,3,7,8-PeCDF | 47 | | 21 - 192 |
| 13C-2,3,4,7,8-PeCDF | 48 | | 13 - 328 |
| 13C-1,2,3,4,7,8-HxCDD | 46 | | 21 - 193 |
| 13C-1,2,3,6,7,8-HxCDD | 45 | | 25 - 163 |
| 13C-1,2,3,4,7,8-HxCDF | 44 | | 19 - 202 |
| 13C-1,2,3,6,7,8-HxCDF | 45 | | 21 - 159 |
| 13C-1,2,3,7,8,9-HxCDF | 44 | | 17 - 205 |
| 13C-2,3,4,6,7,8-HxCDF | 46 | | 22 - 176 |
| 13C-1,2,3,4,6,7,8-HpCDD | 53 | | 26 - 166 |
| 13C-1,2,3,4,6,7,8-HpCDF | 46 | | 21 - 158 |
| 13C-1,2,3,4,7,8,9-HpCDF | 52 | | 20 - 186 |
| 13C-OCDD | 48 | | 13 - 199 |
| 13C-OCDF | 51 | | 13 - 199 |

| Surrogate | LCSD LCSD | | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 37Cl4-2,3,7,8-TCDD | 75 | | 31 - 191 |

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Lab Sample ID: MB 320-735185/1-A
Matrix: Water
Analysis Batch: 738395

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735185

| Analyte | MB MB | | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|----------|-----------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| 2,3,7,8-TCDF - RA | ND | | 0.000010 | 0.0000005 | ug/L | | 01/22/24 08:24 | 02/05/24 13:03 | 1 |

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Eurofins Calscience

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA (Continued)

| <i>Isotope Dilution</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|-------------------------|------------------|------------------|---------------|-----------------|-----------------|----------------|
| 13C-2,3,7,8-TCDF - RA | 39 | | 24 - 169 | 01/22/24 08:24 | 02/05/24 13:03 | 1 |
| | | | | | | |
| <i>Surrogate</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
| 37Cl4-2,3,7,8-TCDD - RA | 95 | | 35 - 197 | 01/22/24 08:24 | 02/05/24 13:03 | 1 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Specialty Organics

Prep Batch: 735185

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 1613B | |
| MB 320-735185/1-A - RA | Method Blank | Total/NA | Water | 1613B | |
| MB 320-735185/1-A | Method Blank | Total/NA | Water | 1613B | |
| LCS 320-735185/2-A | Lab Control Sample | Total/NA | Water | 1613B | |
| LCSD 320-735185/3-A | Lab Control Sample Dup | Total/NA | Water | 1613B | |

Analysis Batch: 737902

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 1613B | 735185 |
| MB 320-735185/1-A | Method Blank | Total/NA | Water | 1613B | 735185 |
| LCS 320-735185/2-A | Lab Control Sample | Total/NA | Water | 1613B | 735185 |
| LCSD 320-735185/3-A | Lab Control Sample Dup | Total/NA | Water | 1613B | 735185 |

Analysis Batch: 738395

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------------|------------------|-----------|--------|--------|------------|
| MB 320-735185/1-A - RA | Method Blank | Total/NA | Water | 1613B | 735185 |

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Client Sample ID: Outfall002_20231231_Comp

Lab Sample ID: 570-166496-1

Date Collected: 12/31/23 07:25

Matrix: Water

Date Received: 01/02/24 16:51

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 1613B | | | 1033.8 mL | 20.0 uL | 735185 | 01/22/24 08:24 | GSH | EET SAC |
| Total/NA | Analysis | 1613B | | 1 | 1 Sample | 1 Sample | 737902 | 02/02/24 04:22 | KSS | EET SAC |

Instrument ID: DFS 1

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|--------------------|-----------------------|-----------------------|-----------------|
| Alaska (UST) | State | 17-020 | 02-20-24 |
| ANAB | Dept. of Defense ELAP | L2468 | 01-20-27 |
| ANAB | Dept. of Energy | L2468.01 | 01-20-27 |
| ANAB | ISO/IEC 17025 | L2468 | 01-20-27 |
| Arizona | State | AZ0708 | 08-11-24 |
| Arkansas DEQ | State | 88-0691 | 05-18-24 |
| California | State | 2897 | 01-31-26 |
| Colorado | State | CA00044 | 08-31-24 |
| Florida | NELAP | E87570 | 06-30-24 |
| Georgia | State | 4040 | 01-29-25 |
| Hawaii | State | <cert No.> | 01-29-24 * |
| Illinois | NELAP | 200060 | 03-17-24 |
| Kansas | NELAP | E-10375 | 10-31-24 |
| Louisiana | NELAP | 01944 | 06-30-24 |
| Louisiana (All) | NELAP | 01944 | 06-30-24 |
| Maine | State | CA00004 | 04-14-24 |
| Michigan | State | 9947 | 01-31-24 * |
| Nevada | State | CA00044 | 07-31-24 |
| New Hampshire | NELAP | 2997 | 04-18-24 |
| New Jersey | NELAP | CA005 | 06-30-24 |
| New York | NELAP | 11666 | 04-01-24 |
| Ohio | State | 41252 | 01-29-25 |
| Oregon | NELAP | 4040 | 01-29-25 |
| Texas | NELAP | T104704399-23-17 | 05-31-24 |
| US Fish & Wildlife | US Federal Programs | 58448 | 04-30-24 |
| USDA | US Federal Programs | P330-18-00239 | 02-28-26 |
| Utah | NELAP | CA000442023-16 | 02-29-24 |
| Virginia | NELAP | 460278 | 03-14-24 |
| Washington | State | C581 | 05-05-24 |
| West Virginia (DW) | State | 9930C | 01-31-25 |
| Wisconsin | State | 998204680 | 08-31-24 |
| Wyoming | State Program | 8TMS-L | 01-28-19 * |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

| Method | Method Description | Protocol | Laboratory |
|--------|---|----------|------------|
| 1613B | Dioxins and Furans (HRGC/HRMS) | EPA | EET SAC |
| 1613B | Separatory Funnel (L/L) Extraction with Soxhlet Extraction of Dioxin and Furans | EPA | EET SAC |

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-166496-1 | Outfall002_20231231_Comp | Water | 12/31/23 07:25 | 01/02/24 16:51 |

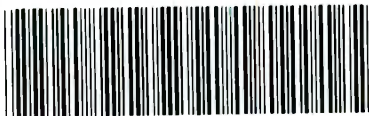
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CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall (001, 002, 011, 018) Outfall 002 Comp | | | | | | | ANALYSIS REQUIRED | | | | | | | | | | | | | | | | |
|--|--------------------------------|---|---------------|-----------------|------------|--------------|----------|--------|--|--------------------------------------|--|------------------------------------|--|---------------------------------|-----------------------|------------------|------------------|--|--|---|----------|--|------|---------------------------------|------------------------------------|
| Eurofins Calscience Project Manager: Vidra Patel 2341 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8406, 520.904.6944 (cell) Field Manager: Mark Dominick 978.234.5433, 818.599.0702 (cell) | | | | | | | Comments | | | | | | | | | | | | | | | | |
| Eurofins Calscience's services under this COC shall be performed in accordance with the T&Cs within Blanket Service Agreement #2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | | | | | | | Total Recoverable Metals: (E200.8): Zn (E200.8): Cu, Pb, Cd, Se TOC (total organic carbon) (E101.02) BOD5 (20 degrees C) (E405.1) (SM210B_BODCalc) Surfactants (MBAS) (SM5540C/E25.1) Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) Turbidity, TDS (SM2540C/E180.1) TSS (160.2 (SM2540D)) Ammonia-N (50.2) alpha-BHC (E608) 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E626) Total Recoverable Metals: Mercury (E245.4) Total Recoverable Metals: (E200.8): Mn, Fe | | | | | | | | | | | | | | | | |
| Sampler: Adren Mobeka | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Recoverable Metals: (E200.8): Zn (E200.8): Cu, Pb, Cd, Se | TOC (total organic carbon) (E101.02) | BOD5 (20 degrees C) (E405.1) (SM210B_BODCalc) | Surfactants (MBAS) (SM5540C/E25.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2 (SM2540D)) | Ammonia-N (50.2) | alpha-BHC (E608) | 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E626) | Total Recoverable Metals: Mercury (E245.4) | Total Recoverable Metals: (E200.8): Mn, Fe | Comments | | | | |
| Outfall 002 | Outfall002_20231231_Comp | 12/31/2023 10725 | WM | 500 mL Poly | 1 | HNO3 | 90 | Yes | X | | | | | | | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | X | | | | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 115 | No | | | X | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | | X | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | X | | | | | | | | | | 48 hours Holding Time NO2 & NO3 | |
| | | | WM | 500 mL Poly | 1 | None | 150 | No | | | | | | | X | | | | | | | | | | 48 hour holding time for turbidity |
| | | | WM | 500 mL Poly | 1 | H2SO4 | 160 | No | | | | | | | | | X | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | X | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | X | | | | |
| | | | WM | 1L Poly | 1 | None | 185 | No | | | | | | | | | X | | | | | | | | |
| 2 | Outfall002_20231231_Comp_Extra | 12/31/2023 10725 | WM | 1 L Glass Amber | 2 | None | 110 | No | | | | | | | | | | | | | | | Hold | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | | H | | | | | | | | | | | Hold | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | H | | | | | | | | | | Hold | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | H | | | | | Hold | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | H | | | | Hold | |

Legend: C=Conditional, R=Routine





| | | |
|---|--|--|
| Relinquished By: <i>Mark Dominick</i> Date/Time: 1-2-24 Company: H.A | Received By: <i>Am</i> Date/Time: 1/2/24 1300 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <u>X</u> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>Am</i> Date/Time: 1/2/24 16:51 Company: <i>EC</i> | Received By: <i>Am</i> Date/Time: 1/2/24 1651 | Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <u>X</u> |



570-166496 Chain of Custody

0.7/1.1 0.6/0.8
0.4/0.6 5.0/4

CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall [001, 002, 011, 018] Outfall 002 Comp | | | | | R R R R R C ANALYSIS REQUIRED | | | | | | | | | |
|--|----------------------------|--|---------------|---------------------------------|---|--------------|---|----------|---|--------------------------------|--|--|---|---|--|--|
| Eurofins CalScience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (c ell) | | | | | Total Dissolved Metals: (E200.8): Cu, Pb, Cd, Se Cyanide (SM4500-CN-E / E335.2) Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E908.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | | | | | | | | | |
| Eurofins CalScience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#202-2-2--Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins CalScience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (c ell) | | | | | | | | | | | | | | |
| Sampler: Adrien Mobeka | | | | | | | | | | | | | | | | |
| Sample Description | Sample ID | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Dissolved Metals: (E200.8): Cu, Pb, Cd, Se | Cyanide (SM4500-CN-E / E335.2) | Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E908.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | Total Dissolved Metals: Mercury (E245.1) | Total Dissolved Metals: (E200.8): Mn, Fe | Comments | | |
| Outfall 002 | Outfall002_20231231_Comp_F | 12/31/2023 10725 | WM1 | 1L Poly | 1 | None | 200 | Yes | X | | | | | | | |
| | | | WM1 | borosilicate vials | 2 | None | 320 | No | | | | X | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. | | |
| | Outfall002_20231231_Comp | 12/31/2023 10725 | WM1 | 500 mL Poly | 1 | NaOH | 220 | No | | X | | | | | | |
| | | | WM1 | 2.5 Gal Cube 1 L Glass Amber | 1 1 | None None | 225 230 | No No | | | X | | | Unfiltered and unpreserved analysis. Separate RAD onto another work order. Analyze duplicate, not MS/MSD. | | |
| Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi Annual | | | | | | | | | | | | | | | | |
| Relinquished By:  Date/Time: 1-2-2024 12:30 Company: H&A | | | | | Received By:  Date/Time: 1/2/24 1300 | | | | | | | | | | | |
| Relinquished By:  Date/Time: 1/2/24 16:51 Company: EC | | | | | Received By:  Date/Time: 1/2/24 1651 | | | | | | | | | | | |
| Relinquished By: _____ Date/Time: _____ Company: _____ | | | | | Received By: _____ Date/Time: _____ | | | | | | | | | | | |

Chain of Custody Record



| | | | | | |
|--|--|--|--|--|--|
| Client Information (Sub Contract Lab) | | Lab PM: Patel, Virendra | | Carrier Tracking No(s): 570-335774.1 | |
| Client Contact: Shipping/Receiving | | E-Mail: Virendra.Patel@eurofins.com | | Page: Page 1 of 1 | |
| Company: Eurofins Environment Testing Northern Ca | | Accreditations Required (See note): State California, State Program California | | Job #: 570-166496-2 | |
| Address: 880 Riverside Parkway | | Due Date Requested: 1/22/2024 | | Preservation Codes: | |
| City: West Sacramento | | TAT Requested (days): | | M Hexane N None O AcNaO2 P Na2OHS Q Na2SO3 R Na2SO4 S H2SO4 T TSP Dodecahydrate U Acetone V MCAA W PH 4-5 Y Trizma Z other (specify) | |
| State, Zip: CA, 95605 | | PO #: | | A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other | |
| Phone: 916-373-5600(Tel) 916-372-1059(Fax) | | WO #: | | | |
| Email: | | Project #: | | | |
| Boeing NPDES SSFL Outfall 002 Comp | | 57013187 | | | |
| Site: | | SSOW#: | | | |
| Sample Identification Client ID (Lab ID) | | Sample Date | | Sample Time | |
| Outfall002_20231231_Comp (570-166496-1) | | 12/31/23 | | 07:25 Pacific | |
| Matrix | | Sample Type | | Preservation Code | |
| Water | | C=Comp, G=grab | | Water | |
| Field Filtered Sample (Yes or No) | | Perform MS/MSD (Yes or No) | | Total Number of Containers | |
| X | | X | | 2 | |
| Special Instructions/Note: | | | | | |
| See OAS, Boiling_w/1 to zero, ug/L, Use Boiling glassware. | | | | | |

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by: [Signature] Date: 1/10/24 11:00 AM Company: VRE
 Relinquished by: [Signature] Date/Time: 1/10/24 9:45 Company: Eurofins
 Relinquished by: [Signature] Date/Time: [] Company: []
 Relinquished by: [Signature] Date/Time: [] Company: []
 Custody Seals Intact: Δ Yes Δ No Custody Seal No. 0-92
 Cooler Temperature (e) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-166496-2

Login Number: 166496

List Source: Eurofins Calscience

List Number: 1

Creator: Patel, Virendra

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-166496-2

Login Number: 166496

List Number: 3

Creator: Simmons, Jason C

List Source: Eurofins Sacramento

List Creation: 01/04/24 01:46 PM

| Question | Answer | Comment |
|--|--------|------------------------------------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 0.9c |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-166496-2

Login Number: 166496

List Number: 5

Creator: Simmons, Jason C

List Source: Eurofins Sacramento

List Creation: 01/17/24 12:00 PM

| Question | Answer | Comment |
|--|--------|------------------------------------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 2.8c 3.9c |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/31/2024 3:20:04 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 002 - Comp

JOB NUMBER

570-166496-3

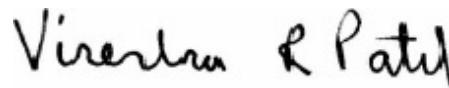
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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1/31/2024 3:20:04 PM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Qualifiers

Rad

| Qualifier | Qualifier Description |
|-----------|--|
| F1 | MS and/or MSD recovery exceeds control limits. |
| G | The Sample MDC is greater than the requested RL. |
| U | Result is less than the sample detection limit. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Job ID: 570-166496-3

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Job Narrative 570-166496-3

Receipt

The samples were received on 1/2/2024 4:51 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.6° C, 0.8° C and 1.1° C.

Receipt Exceptions

The reference method requires samples to have a pH of <2. The following samples were received with a pH of >7: Outfall002_20231231_Comp (570-166496-1), Outfall002_20231231_Comp (570-166496-1[DUJ]), Outfall002_20231231_Comp (570-166496-1[MSJ]), Outfall002_20231231_Comp (570-166496-1[MSD]), Outfall002_20231231_Comp_Extra (570-166496-2), Outfall002_20231231_Comp_F (570-166496-3), Outfall002_20231231_Comp_F (570-166496-3[MSJ]), Outfall002_20231231_Comp_F (570-166496-3[MSD]), INF002_20240102_Grab (570-166524-1), TB-INF002_20240102-1 (570-166524-2), TB-INF002_20240102-2 (570-166524-3), INF002_20240102_Grab_F (570-166524-4), EB-INF002-20240102 (570-166524-5), FB-INF002-20240102 (570-166524-6) and TB-INF002_20240102-4 (570-166524-7). The samples were adjusted to the appropriate pH in the laboratory.

RAD

Method 900.0: Gross Alpha Beta prep batch 160-643190:

The detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: Outfall002_20231231_Comp (570-166496-1) and Outfall002_20231231_Comp (570-166496-1[DUJ]). Analytical results are reported with the detection limit achieved.

Method 900.0: Gross Alpha Beta prep batch 160-643190:

The matrix spike (MS) recoveries for preparation batch 160-643190 and analytical batch 160-644966 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. (570-166496-R-1-L MS)

Method 901.1: Gamma Prep batch 160-643217

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

| Inferred from | Reported to Analyte |
|---------------|---------------------|
| Th-234 | Pa-234 |
| Th-234 | U-238 |
| Pb-210 | Po-210 |
| Pb-210 | Bi-210 |
| Cs-137 | Ba-137m |
| Pb-212 | Po-216 |
| Xe-131m | Xe-131 |
| Sb-125 | Te-125m |
| Ag-108m | Ag-108 |
| Rh-106 | Ru-106 |
| Pb-212 | Th-228 |
| Pb-212 | Ra-224 |
| U-235 | Th-231 |
| Ac-228 | Th-232 |
| Ac-228 | Ra-228 |
| Th-227 | Ra-223 |
| Th-227 | Ac-227 |
| Th-227 | Bi-211 |
| Th-227 | Pb-211 |
| Bi-214 | Ra-226 |

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Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Job ID: 570-166496-3 (Continued)

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Outfall002_20231231_Comp (570-166496-1) and Outfall002_20231231_Comp (570-166496-1[DU])

Method 906.0:

Method Evaporation: GAB Prep Batch 160-643190

The following samples had a final mass above the 100 mg limit: Outfall002_20231231_Comp (570-166496-1), Outfall002_20231231_Comp (570-166496-1[DU]), (570-166496-R-1 MS) and (570-166496-R-1 MSBT). The according dilution is noted in the notes section of the prep worksheet and is reflected in the initial amount field.

Method PrecSep_0:

Method PrecSep-21:

Method PrecSep-7:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Client Sample ID: Outfall002_20231231_Comp

Lab Sample ID: 570-166496-1

No Detections.

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Client Sample ID: Outfall002_20231231_Comp
Date Collected: 12/31/23 07:25
Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Gross Alpha | 2.56 | U G | 3.72 | 3.73 | 3.00 | 6.28 | pCi/L | 01/05/24 09:39 | 01/19/24 16:44 | 1 |
| Gross Beta | 1.62 | U | 1.30 | 1.31 | 4.00 | 2.04 | pCi/L | 01/05/24 09:39 | 01/19/24 16:44 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: EPA 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Client Sample ID: Outfall002_20231231_Comp
Date Collected: 12/31/23 07:25
Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Cesium-137 | -1.36 | U | 9.51 | 9.51 | 20.0 | 11.7 | pCi/L | 01/05/24 11:19 | 01/12/24 23:51 | 1 |
| Potassium-40 | -7.15 | U | 121 | 121 | | 135 | pCi/L | 01/05/24 11:19 | 01/12/24 23:51 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: EPA 903.0 - Radium-226 (GFPC)

Client Sample ID: Outfall002_20231231_Comp
 Date Collected: 12/31/23 07:25
 Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1
 Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.102 | U | 0.0800 | 0.0805 | 1.00 | 0.110 | pCi/L | 01/05/24 10:24 | 01/29/24 14:40 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 77.6 | | 30 - 110 | | | | | 01/05/24 10:24 | 01/29/24 14:40 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: EPA 904.0 - Radium-228 (GFPC)

Client Sample ID: Outfall002_20231231_Comp
 Date Collected: 12/31/23 07:25
 Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1
 Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 1.14 | | 0.483 | 0.495 | 1.00 | 0.629 | pCi/L | 01/05/24 10:30 | 01/23/24 12:06 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 77.6 | | 30 - 110 | | | | | 01/05/24 10:30 | 01/23/24 12:06 | 1 |
| Y Carrier | 78.9 | | 30 - 110 | | | | | 01/05/24 10:30 | 01/23/24 12:06 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: EPA 905 - Strontium-90 (GFPC)

Client Sample ID: Outfall002_20231231_Comp
Date Collected: 12/31/23 07:25
Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Strontium-90 | 0.302 | U | 0.225 | 0.226 | 3.00 | 0.352 | pCi/L | 01/05/24 10:35 | 01/15/24 15:30 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Sr Carrier | 72.8 | | 30 - 110 | | | | | 01/05/24 10:35 | 01/15/24 15:30 | 1 |
| Y Carrier | 87.5 | | 30 - 110 | | | | | 01/05/24 10:35 | 01/15/24 15:30 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: EPA 906.0 - Tritium, Total (LSC)

Client Sample ID: Outfall002_20231231_Comp
Date Collected: 12/31/23 07:25
Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----------------------------|-----------------------------|-----|-----|-------|----------------|----------------|---------|
| Tritium | 116 | U | 121 | 121 | 500 | 198 | pCi/L | 01/19/24 09:31 | 01/20/24 08:06 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: DOE A-01-R - Isotopic Uranium (Alpha Spectrometry)

Client Sample ID: Outfall002_20231231_Comp
Date Collected: 12/31/23 07:25
Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------------|--------|-----------|-----------------------------|-----------------------------|----------------|---------|-------|----------------|----------------|---------|
| Total Uranium | 1.94 | | 0.439 | 0.454 | 1.00 | 0.199 | pCi/L | 01/09/24 08:25 | 01/22/24 10:10 | 1 |
| Tracer | %Yield | Qualifier | Limits | | | | | | | |
| Uranium-232 | 81.9 | | 30 - 110 | Prepared | Analyzed | Dil Fac | | | | |
| | | | | 01/09/24 08:25 | 01/22/24 10:10 | 1 | | | | |

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Tracer/Carrier Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|------------------------------|--------------------------|-----------------------------------|--|
| Lab Sample ID | Client Sample ID | Ba (30-110) | |
| 570-166496-1 | Outfall002_20231231_Comp | 77.6 | |
| 570-166496-1 DU | Outfall002_20231231_Comp | 86.3 | |
| LCS 160-643193/2-A | Lab Control Sample | 91.8 | |
| MB 160-643193/1-A | Method Blank | 92.8 | |
| Tracer/Carrier Legend | | | |
| Ba = Ba Carrier | | | |

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|------------------------------|--------------------------|-----------------------------------|---------------|
| Lab Sample ID | Client Sample ID | Ba (30-110) | Y (30-110) |
| 570-166496-1 | Outfall002_20231231_Comp | 77.6 | 78.9 |
| 570-166496-1 DU | Outfall002_20231231_Comp | 86.3 | 80.4 |
| LCS 160-643201/2-A | Lab Control Sample | 91.8 | 78.5 |
| MB 160-643201/1-A | Method Blank | 92.8 | 79.3 |
| Tracer/Carrier Legend | | | |
| Ba = Ba Carrier | | | |
| Y = Y Carrier | | | |

Method: 905 - Strontium-90 (GFPC)

Matrix: Water

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|------------------------------|--------------------------|-----------------------------------|---------------|
| Lab Sample ID | Client Sample ID | Sr (30-110) | Y (30-110) |
| 570-166496-1 | Outfall002_20231231_Comp | 72.8 | 87.5 |
| 570-166496-1 DU | Outfall002_20231231_Comp | 71.1 | 87.9 |
| LCS 160-643206/2-A | Lab Control Sample | 80.1 | 94.6 |
| MB 160-643206/1-A | Method Blank | 67.2 | 91.6 |
| Tracer/Carrier Legend | | | |
| Sr = Sr Carrier | | | |
| Y = Y Carrier | | | |

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Water

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|------------------------------|--------------------------|-----------------------------------|--|
| Lab Sample ID | Client Sample ID | U-232 (30-110) | |
| 570-166496-1 | Outfall002_20231231_Comp | 81.9 | |
| 570-166496-1 DU | Outfall002_20231231_Comp | 78.1 | |
| LCS 160-643475/2-A | Lab Control Sample | 77.5 | |
| MB 160-643475/1-A | Method Blank | 73.3 | |
| Tracer/Carrier Legend | | | |
| U-232 = Uranium-232 | | | |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-643190/1-A
Matrix: Water
Analysis Batch: 644841

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 643190

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|--------------------|--------------------|------|-------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Gross Alpha | 0.4670 | U | 0.549 | 0.552 | 3.00 | 0.900 | pCi/L | 01/05/24 09:39 | 01/19/24 16:27 | 1 |
| Gross Beta | 0.7710 | U | 0.543 | 0.548 | 4.00 | 0.827 | pCi/L | 01/05/24 09:39 | 01/19/24 16:27 | 1 |

Lab Sample ID: LCS 160-643190/2-A
Matrix: Water
Analysis Batch: 646012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 643190

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec Limits |
|-------------|----------------|---------------|-------------|--------------------|------|------|-------|------|----------------|
| | | | | Uncert. (2σ+/-) | | | | | |
| Gross Alpha | 49.3 | 53.49 | | 7.71 | 3.00 | 1.93 | pCi/L | 109 | 75 - 125 |

Lab Sample ID: LCSB 160-643190/3-A
Matrix: Water
Analysis Batch: 646012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 643190

| Analyte | Spike Added | LCSB Result | LCSB Qual | Total | RL | MDC | Unit | %Rec | %Rec Limits |
|------------|----------------|----------------|--------------|--------------------|------|-------|-------|------|----------------|
| | | | | Uncert. (2σ+/-) | | | | | |
| Gross Beta | 72.0 | 71.27 | | 7.66 | 4.00 | 0.780 | pCi/L | 99 | 75 - 125 |

Lab Sample ID: 570-166496-1 MS
Matrix: Water
Analysis Batch: 644966

Client Sample ID: Outfall002_20231231_Comp
Prep Type: Total/NA
Prep Batch: 643190

| Analyte | Sample Result | Sample Qual | Spike Added | MS Result | MS Qual | Total | RL | MDC | Unit | %Rec | %Rec Limits |
|-------------|------------------|----------------|----------------|--------------|------------|--------------------|------|------|-------|------|----------------|
| | | | | | | Uncert. (2σ+/-) | | | | | |
| Gross Alpha | 2.56 | U G | 49.3 | 24.76 | F1 | 6.71 | 3.00 | 6.09 | pCi/L | 45 | 60 - 140 |

Lab Sample ID: 570-166496-1 MSBT
Matrix: Water
Analysis Batch: 644966

Client Sample ID: Outfall002_20231231_Comp
Prep Type: Total/NA
Prep Batch: 643190

| Analyte | Sample Result | Sample Qual | Spike Added | MSBT Result | MSBT Qual | Total | RL | MDC | Unit | %Rec | %Rec Limits |
|------------|------------------|----------------|----------------|----------------|--------------|--------------------|------|------|-------|------|----------------|
| | | | | | | Uncert. (2σ+/-) | | | | | |
| Gross Beta | 1.62 | U | 72.0 | 61.25 | | 7.29 | 4.00 | 2.00 | pCi/L | 83 | 60 - 140 |

Lab Sample ID: 570-166496-1 DU
Matrix: Water
Analysis Batch: 644966

Client Sample ID: Outfall002_20231231_Comp
Prep Type: Total/NA
Prep Batch: 643190

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total | RL | MDC | Unit | RER | RER Limit |
|-------------|------------------|----------------|--------------|------------|--------------------|------|------|-------|------|--------------|
| | | | | | Uncert. (2σ+/-) | | | | | |
| Gross Alpha | 2.56 | U G | 4.112 | U G | 3.71 | 3.00 | 5.76 | pCi/L | 0.21 | 1 |
| Gross Beta | 1.62 | U | 3.215 | | 1.40 | 4.00 | 1.87 | pCi/L | 0.59 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-643217/1-A
Matrix: Water
Analysis Batch: 644118

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 643217

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|---------|-----------|-----------------|-----------------|------|------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Cesium-137 | -0.9422 | U | 10.8 | 10.8 | 20.0 | 13.8 | pCi/L | 01/05/24 11:19 | 01/12/24 15:11 | 1 |
| Potassium-40 | 37.27 | U | 65.1 | 65.3 | | 108 | pCi/L | 01/05/24 11:19 | 01/12/24 15:11 | 1 |

Lab Sample ID: LCS 160-643217/2-A
Matrix: Water
Analysis Batch: 644077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 643217

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|---------------|-------------|------------|----------|-----------------|------|------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Americium-241 | 135000 | 142000 | | 16900 | | 530 | pCi/L | 105 | 75 - 125 |
| Cesium-137 | 40100 | 39570 | | 4720 | 20.0 | 151 | pCi/L | 99 | 75 - 125 |
| Cobalt-60 | 16000 | 15850 | | 1900 | | 80.5 | pCi/L | 99 | 75 - 125 |

Lab Sample ID: 570-166496-1 DU
Matrix: Water
Analysis Batch: 644419

Client Sample ID: Outfall002_20231231_Comp
Prep Type: Total/NA
Prep Batch: 643217

| Analyte | Sample Sample | | DU | DU | Total | RL | MDC | Unit | RER | RER |
|--------------|---------------|------|---------|------|-----------------|------|------|-------|-----|-------|
| | Result | Qual | Result | Qual | Uncert. (2σ+/-) | | | | | Limit |
| Cesium-137 | -1.36 | U | -0.1884 | U | 9.63 | 20.0 | 12.5 | pCi/L | | 0.06 |
| Potassium-40 | -7.15 | U | -29.28 | U | 134 | | 174 | pCi/L | | 0.09 |

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-643193/1-A
Matrix: Water
Analysis Batch: 646007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 643193

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|-----------------|-----------------|------|----------------|----------------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Radium-226 | 0.03064 | U | 0.0642 | 0.0643 | 1.00 | 0.117 | pCi/L | 01/05/24 10:24 | 01/29/24 14:38 | 1 |
| Carrier | MB %Yield | MB Qualifier | Limits | | | Prepared | Analyzed | Dil Fac | | |
| Ba Carrier | 92.8 | | 30 - 110 | | | 01/05/24 10:24 | 01/29/24 14:38 | 1 | | |

Lab Sample ID: LCS 160-643193/2-A
Matrix: Water
Analysis Batch: 646007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 643193

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|------------|-------------|---------------|----------|-----------------|------|-------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Radium-226 | 11.3 | 10.34 | | 1.10 | 1.00 | 0.134 | pCi/L | 91 | 75 - 125 |
| Carrier | LCS %Yield | LCS Qualifier | Limits | | | | | | |
| Ba Carrier | 91.8 | | 30 - 110 | | | | | | |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 570-166496-1 DU
 Matrix: Water
 Analysis Batch: 646007

Client Sample ID: Outfall002_20231231_Comp
 Prep Type: Total/NA
 Prep Batch: 643193

| Analyte | Sample | Sample | DU | | Total Uncert. (2σ+/-) | RL | MDC | Unit | RER | RER Limit |
|----------------|---------------|------------------|---------------|------|-----------------------------|------|-------|-------|------|--------------|
| | Result | Qual | Result | Qual | | | | | | |
| Radium-226 | 0.102 | U | 0.1551 | | 0.0988 | 1.00 | 0.131 | pCi/L | 0.29 | 1 |
| DU DU | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Ba Carrier | 86.3 | | 30 - 110 | | | | | | | |

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-643201/1-A
 Matrix: Water
 Analysis Batch: 645165

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 643201

| Analyte | MB | MB | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|----------------|---------------|------------------|-----------------------------|-----------------------------|------|-------|-----------------|----------------|-----------------|---------|
| | Result | Qualifier | | | | | | | | |
| Radium-228 | 0.6470 | | 0.378 | 0.383 | 1.00 | 0.547 | pCi/L | 01/05/24 10:30 | 01/23/24 12:04 | 1 |
| MB MB | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | Prepared | | Analyzed | |
| Ba Carrier | 92.8 | | 30 - 110 | | | | 01/05/24 10:30 | | 01/23/24 12:04 | |
| Y Carrier | 79.3 | | 30 - 110 | | | | 01/05/24 10:30 | | 01/23/24 12:04 | |

Lab Sample ID: LCS 160-643201/2-A
 Matrix: Water
 Analysis Batch: 645255

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 643201

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|----------------|----------------|------------------|---------------|-----------------------------|----|-----|------|------|----------------|
| | | | | | | | | | |
| LCS LCS | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | |
| Ba Carrier | 91.8 | | 30 - 110 | | | | | | |
| Y Carrier | 78.5 | | 30 - 110 | | | | | | |

Lab Sample ID: 570-166496-1 DU
 Matrix: Water
 Analysis Batch: 645165

Client Sample ID: Outfall002_20231231_Comp
 Prep Type: Total/NA
 Prep Batch: 643201

| Analyte | Sample | Sample | DU | | Total Uncert. (2σ+/-) | RL | MDC | Unit | RER | RER Limit |
|----------------|---------------|------------------|---------------|------|-----------------------------|------|-------|-------|------|--------------|
| | Result | Qual | Result | Qual | | | | | | |
| Radium-228 | 1.14 | | 0.7393 | | 0.394 | 1.00 | 0.535 | pCi/L | 0.45 | 1 |
| DU DU | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Ba Carrier | 86.3 | | 30 - 110 | | | | | | | |
| Y Carrier | 80.4 | | 30 - 110 | | | | | | | |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-643206/1-A
Matrix: Water
Analysis Batch: 644329

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 643206

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------|-----------------|------|-------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Strontium-90 | 0.1468 | U | 0.202 | 0.202 | 3.00 | 0.338 | pCi/L | 01/05/24 10:35 | 01/15/24 15:16 | 1 |
| Carrier | MB MB | | Limits | | | | | Prepared | Analyzed | Dil Fac |
| | %Yield | Qualifier | | | | | | | | |
| Sr Carrier | 67.2 | | 30 - 110 | | | | | 01/05/24 10:35 | 01/15/24 15:16 | 1 |
| Y Carrier | 91.6 | | 30 - 110 | | | | | 01/05/24 10:35 | 01/15/24 15:16 | 1 |

Lab Sample ID: LCS 160-643206/2-A
Matrix: Water
Analysis Batch: 644329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 643206

| Analyte | | Spike Added | LCS | LCS | Total | RL | MDC | Unit | %Rec | %Rec Limits |
|--------------|---------|-------------|----------|------|-----------------|------|-------|-------|------|-------------|
| | | | Result | Qual | Uncert. (2σ+/-) | | | | | |
| Strontium-90 | | 7.21 | 7.188 | | 0.796 | 3.00 | 0.274 | pCi/L | 100 | 75 - 125 |
| Carrier | LCS LCS | | Limits | | | | | | | |
| | %Yield | Qualifier | | | | | | | | |
| Sr Carrier | 80.1 | | 30 - 110 | | | | | | | |
| Y Carrier | 94.6 | | 30 - 110 | | | | | | | |

Lab Sample ID: 570-166496-1 DU
Matrix: Water
Analysis Batch: 644399

Client Sample ID: Outfall002_20231231_Comp
Prep Type: Total/NA
Prep Batch: 643206

| Analyte | Sample Sample | | DU | DU | Total | RL | MDC | Unit | RER | RER Limit |
|--------------|---------------|-----------|----------|------|-----------------|------|-------|-------|------|-----------|
| | Result | Qual | Result | Qual | Uncert. (2σ+/-) | | | | | |
| Strontium-90 | 0.302 | U | 0.04568 | U | 0.197 | 3.00 | 0.348 | pCi/L | 0.61 | 1 |
| Carrier | DU DU | | Limits | | | | | | | |
| | %Yield | Qualifier | | | | | | | | |
| Sr Carrier | 71.1 | | 30 - 110 | | | | | | | |
| Y Carrier | 87.9 | | 30 - 110 | | | | | | | |

Method: 906.0 - Tritium, Total (LSC)

Lab Sample ID: MB 160-644916/1-A
Matrix: Water
Analysis Batch: 645148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644916

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----------------|-----------------|-----|-----|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Tritium | 63.51 | U | 116 | 117 | 500 | 200 | pCi/L | 01/19/24 09:31 | 01/20/24 03:38 | 1 |

Lab Sample ID: LCS 160-644916/2-A
Matrix: Water
Analysis Batch: 645148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644916

| Analyte | | Spike Added | LCS | LCS | Total | RL | MDC | Unit | %Rec | %Rec Limits |
|---------|--|-------------|--------|------|-----------------|-----|-----|-------|------|-------------|
| | | | Result | Qual | Uncert. (2σ+/-) | | | | | |
| Tritium | | 2000 | 1841 | | 288 | 500 | 199 | pCi/L | 92 | 75 - 125 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Method: 906.0 - Tritium, Total (LSC) (Continued)

Lab Sample ID: 570-166496-1 MS
 Matrix: Water
 Analysis Batch: 645148

Client Sample ID: Outfall002_20231231_Comp
 Prep Type: Total/NA
 Prep Batch: 644916

| Analyte | Sample Result | Sample Qual | Spike Added | MS | | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|---------|---------------|-------------|-------------|--------|------|-----------------------|-----|-----|-------|------|-------------|
| | | | | Result | Qual | | | | | | |
| Tritium | 116 | U | 2000 | 2080 | | 316 | 500 | 209 | pCi/L | 98 | 60 - 140 |

Lab Sample ID: 570-166496-1 DU
 Matrix: Water
 Analysis Batch: 645275

Client Sample ID: Outfall002_20231231_Comp
 Prep Type: Total/NA
 Prep Batch: 644916

| Analyte | Sample Result | Sample Qual | DU | | Total Uncert. (2σ+/-) | RL | MDC | Unit | RER | RER Limit |
|---------|---------------|-------------|--------|------|-----------------------|-----|-----|-------|------|-----------|
| | | | Result | Qual | | | | | | |
| Tritium | 116 | U | 30.63 | U | 133 | 500 | 236 | pCi/L | 0.34 | 1 |

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Lab Sample ID: MB 160-643475/1-A
 Matrix: Water
 Analysis Batch: 645111

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 643475

| Analyte | MB | | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------------|-----------|--------------|-----------------------|-----------------------|----------------|----------------|---------|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | | |
| Total Uranium | 0.08145 | U | 0.1267 | 0.1268 | 1.00 | 0.185 | pCi/L | 01/09/24 08:25 | 01/22/24 10:07 | 1 |
| Tracer | MB %Yield | MB Qualifier | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Uranium-232 | 73.3 | | 30 - 110 | | 01/09/24 08:25 | 01/22/24 10:07 | 1 | | | |

Lab Sample ID: LCS 160-643475/2-A
 Matrix: Water
 Analysis Batch: 645113

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 643475

| Analyte | Spike Added | LCS | | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|-------------|-------------|---------------|----------|-----------------------|------|-------|-------|------|-------------|
| | | Result | Qual | | | | | | |
| Uranium-234 | 12.7 | 13.15 | | 1.58 | 1.00 | 0.139 | pCi/L | 103 | 75 - 125 |
| Uranium-238 | 13.0 | 14.59 | | 1.71 | 1.00 | 0.111 | pCi/L | 112 | 75 - 125 |
| Tracer | LCS %Yield | LCS Qualifier | Limits | | | | | | |
| Uranium-232 | 77.5 | | 30 - 110 | | | | | | |

Lab Sample ID: 570-166496-1 DU
 Matrix: Water
 Analysis Batch: 645055

Client Sample ID: Outfall002_20231231_Comp
 Prep Type: Total/NA
 Prep Batch: 643475

| Analyte | Sample Result | Sample Qual | DU | | Total Uncert. (2σ+/-) | RL | MDC | Unit | RER | RER Limit |
|---------------|---------------|--------------|----------|------|-----------------------|------|-------|-------|------|-----------|
| | | | Result | Qual | | | | | | |
| Total Uranium | 1.94 | | 2.080 | | 0.473 | 1.00 | 0.166 | pCi/L | 0.15 | 1 |
| Tracer | DU %Yield | DU Qualifier | Limits | | | | | | | |
| Uranium-232 | 78.1 | | 30 - 110 | | | | | | | |

QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

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Prep Batch: 643190

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|-------------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | Evaporation | |
| MB 160-643190/1-A | Method Blank | Total/NA | Water | Evaporation | |
| LCS 160-643190/2-A | Lab Control Sample | Total/NA | Water | Evaporation | |
| LCSB 160-643190/3-A | Lab Control Sample | Total/NA | Water | Evaporation | |
| 570-166496-1 MS | Outfall002_20231231_Comp | Total/NA | Water | Evaporation | |
| 570-166496-1 MSBT | Outfall002_20231231_Comp | Total/NA | Water | Evaporation | |
| 570-166496-1 DU | Outfall002_20231231_Comp | Total/NA | Water | Evaporation | |

Prep Batch: 643193

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|------------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | PrecSep-21 | |
| MB 160-643193/1-A | Method Blank | Total/NA | Water | PrecSep-21 | |
| LCS 160-643193/2-A | Lab Control Sample | Total/NA | Water | PrecSep-21 | |
| 570-166496-1 DU | Outfall002_20231231_Comp | Total/NA | Water | PrecSep-21 | |

Prep Batch: 643201

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | PrecSep_0 | |
| MB 160-643201/1-A | Method Blank | Total/NA | Water | PrecSep_0 | |
| LCS 160-643201/2-A | Lab Control Sample | Total/NA | Water | PrecSep_0 | |
| 570-166496-1 DU | Outfall002_20231231_Comp | Total/NA | Water | PrecSep_0 | |

Prep Batch: 643206

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | PrecSep-7 | |
| MB 160-643206/1-A | Method Blank | Total/NA | Water | PrecSep-7 | |
| LCS 160-643206/2-A | Lab Control Sample | Total/NA | Water | PrecSep-7 | |
| 570-166496-1 DU | Outfall002_20231231_Comp | Total/NA | Water | PrecSep-7 | |

Prep Batch: 643217

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|------------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | Fill_Geo-0 | |
| MB 160-643217/1-A | Method Blank | Total/NA | Water | Fill_Geo-0 | |
| LCS 160-643217/2-A | Lab Control Sample | Total/NA | Water | Fill_Geo-0 | |
| 570-166496-1 DU | Outfall002_20231231_Comp | Total/NA | Water | Fill_Geo-0 | |

Prep Batch: 643475

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | ExtChrom | |
| MB 160-643475/1-A | Method Blank | Total/NA | Water | ExtChrom | |
| LCS 160-643475/2-A | Lab Control Sample | Total/NA | Water | ExtChrom | |
| 570-166496-1 DU | Outfall002_20231231_Comp | Total/NA | Water | ExtChrom | |

Prep Batch: 644916

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|---------------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | LSC_Dist_Susp | |
| MB 160-644916/1-A | Method Blank | Total/NA | Water | LSC_Dist_Susp | |
| LCS 160-644916/2-A | Lab Control Sample | Total/NA | Water | LSC_Dist_Susp | |
| 570-166496-1 MS | Outfall002_20231231_Comp | Total/NA | Water | LSC_Dist_Susp | |
| 570-166496-1 DU | Outfall002_20231231_Comp | Total/NA | Water | LSC_Dist_Susp | |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Client Sample ID: Outfall002_20231231_Comp

Lab Sample ID: 570-166496-1

Date Collected: 12/31/23 07:25

Matrix: Water

Date Received: 01/02/24 16:51

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------------|------------|---------------|-----|------------|----------------|--------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | Evaporation | | | 99.99 mL | 1.0 g | 643190 | 01/05/24 09:39 | ASG | EET SL |
| Total/NA | Analysis | 900.0 | | 1 | 1.0 mL | 1.0 mL | 644966 | 01/19/24 16:44 | FLC | EET SL |
| Instrument ID: GFPCPURPLE | | | | | | | | | | |
| Total/NA | Prep | Fill_Geo-0 | | | 1000 mL | 1.0 g | 643217 | 01/05/24 11:19 | SAC | EET SL |
| Total/NA | Analysis | 901.1 | | 1 | | | 644116 | 01/12/24 23:51 | CAH | EET SL |
| Instrument ID: GAMMAVISION | | | | | | | | | | |
| Total/NA | Prep | PrecSep-21 | | | 997.97 mL | 1.0 g | 643193 | 01/05/24 10:24 | KAC | EET SL |
| Total/NA | Analysis | 903.0 | | 1 | | | 646007 | 01/29/24 14:40 | SCB | EET SL |
| Instrument ID: GFPCRED | | | | | | | | | | |
| Total/NA | Prep | PrecSep_0 | | | 997.97 mL | 1.0 g | 643201 | 01/05/24 10:30 | KAC | EET SL |
| Total/NA | Analysis | 904.0 | | 1 | 1.0 mL | 1.0 mL | 645165 | 01/23/24 12:06 | FLC | EET SL |
| Instrument ID: GFPCRED | | | | | | | | | | |
| Total/NA | Prep | PrecSep-7 | | | 991.59 mL | 1.0 g | 643206 | 01/05/24 10:35 | KAC | EET SL |
| Total/NA | Analysis | 905 | | 1 | | | 644399 | 01/15/24 15:30 | FLC | EET SL |
| Instrument ID: GFPCORANGE | | | | | | | | | | |
| Total/NA | Prep | LSC_Dist_Susp | | | 100.04 mL | 1.0 g | 644916 | 01/19/24 09:31 | MST | EET SL |
| Total/NA | Analysis | 906.0 | | 1 | | | 645148 | 01/20/24 08:06 | MLK | EET SL |
| Instrument ID: LSCBROWN | | | | | | | | | | |
| Total/NA | Prep | ExtChrom | | | 500.15 mL | 1.0 mL | 643475 | 01/09/24 08:25 | MLT | EET SL |
| Total/NA | Analysis | A-01-R | | 1 | | | 645050 | 01/22/24 10:10 | FLC | EET SL |
| Instrument ID: ALPHAVISION | | | | | | | | | | |

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|--------------------------|---|----------------------------|-----------------|
| Alaska (UST) | State | 20-001 | 05-06-25 |
| ANAB | Dept. of Defense ELAP | L2305 | 04-06-25 |
| ANAB | Dept. of Energy | L2305.01 | 04-06-25 |
| ANAB | ISO/IEC 17025 | L2305 | 04-06-25 |
| Arizona | State | AZ0813 | 12-08-24 |
| California | Los Angeles County Sanitation Districts | 10259 | 06-30-22 * |
| California | State | 2886 | 06-30-24 |
| Connecticut | State | PH-0241 | 03-31-25 |
| Florida | NELAP | E87689 | 06-30-24 |
| HI - RadChem Recognition | State | n/a | 06-30-24 |
| Illinois | NELAP | 200023 | 11-30-24 |
| Iowa | State | 373 | 12-01-24 |
| Kansas | NELAP | E-10236 | 10-31-24 |
| Kentucky (DW) | State | KY90125 | 12-31-24 |
| Kentucky (WW) | State | KY90125 (Permit KY0004049) | 12-31-24 |
| Louisiana | NELAP | 04080 | 06-30-22 * |
| Louisiana (All) | NELAP | 04080 | 06-30-24 |
| Louisiana (DW) | State | LA011 | 12-31-24 |
| Maryland | State | 310 | 09-30-24 |
| Massachusetts | State | M-MO054 | 06-30-24 |
| MI - RadChem Recognition | State | 9005 | 06-30-24 |
| Missouri | State | 780 | 06-30-25 |
| Nevada | State | MO00054 | 07-31-24 |
| New Jersey | NELAP | MO002 | 06-30-24 |
| New Mexico | State | MO00054 | 06-30-24 |
| New York | NELAP | 11616 | 03-31-24 |
| North Carolina (DW) | State | 29700 | 07-31-24 |
| North Dakota | State | R-207 | 06-30-24 |
| Oklahoma | NELAP | 9997 | 08-31-24 |
| Oregon | NELAP | 4157 | 09-01-24 |
| Pennsylvania | NELAP | 68-00540 | 02-28-24 |
| South Carolina | State | 85002001 | 06-30-24 |
| Texas | NELAP | T104704193 | 07-31-24 |
| US Fish & Wildlife | US Federal Programs | 058448 | 07-31-24 |
| USDA | US Federal Programs | P330-17-00028 | 05-18-26 |
| Utah | NELAP | MO00054 | 07-31-24 |
| Virginia | NELAP | 10310 | 06-15-25 |
| Washington | State | C592 | 08-30-24 |
| West Virginia DEP | State | 381 | 01-31-24 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

| Method | Method Description | Protocol | Laboratory |
|---------------|--|----------|------------|
| 900.0 | Gross Alpha and Gross Beta Radioactivity | EPA | EET SL |
| 901.1 | Cesium 137 & Other Gamma Emitters (GS) | EPA | EET SL |
| 903.0 | Radium-226 (GFPC) | EPA | EET SL |
| 904.0 | Radium-228 (GFPC) | EPA | EET SL |
| 905 | Strontium-90 (GFPC) | EPA | EET SL |
| 906.0 | Tritium, Total (LSC) | EPA | EET SL |
| A-01-R | Isotopic Uranium (Alpha Spectrometry) | DOE | EET SL |
| Evaporation | Preparation, Evaporation | None | EET SL |
| ExtChrom | Preparation, Extraction Chromatography Resin Actinide Separation | None | EET SL |
| Fill_Geo-0 | Fill Geometry, No In-Growth | None | EET SL |
| LSC_Dist_Susp | Distillation and Suspension (LSC) | None | EET SL |
| PrecSep_0 | Preparation, Precipitate Separation | None | EET SL |
| PrecSep-21 | Preparation, Precipitate Separation (21-Day In-Growth) | None | EET SL |
| PrecSep-7 | Preparation, Precipitate Separation (7-Day In-Growth) | None | EET SL |

Protocol References:

DOE = U.S. Department of Energy
EPA = US Environmental Protection Agency
None = None

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-3

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-166496-1 | Outfall002_20231231_Comp | Water | 12/31/23 07:25 | 01/02/24 16:51 |

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CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall (001, 002, 011, 018) Outfall 002 Comp | | | | | | | ANALYSIS REQUIRED | | | | | | | | | | | | | | | | |
|--|--------------------------------|---|---------------|-----------------|------------|--------------|----------|--------|--|------------------------|--|-------------------------------------|---|---------------------------------|------------------------|------------------|------------------|--|---|---|----------|--|------|---------------------------------|------------------------------------|
| Eurofins Calscience Project Manager: Videndra Patel 2341 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8406, 520.904.6944 (cell) Field Manager: Mark Dominick 978.234.5433, 818.599.0702 (cell) | | | | | | | Comments | | | | | | | | | | | | | | | | |
| Eurofins Calscience's services under this COC shall be performed in accordance with the T&Cs within Blanket Service Agreement #2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | | | | | | | Total Recoverable Metals: (E200.8): Zn (E200.8): Cu, Pb, Cd, Se TSS (160.2) (SM2540D1) BOD5 (20 degrees C) (E405.1) (SM210B_BODCalc) Surfactants (MBAS) (SM5540C/E425.1) Cl-, SO4-, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) Turbidity, TDS (SM2540C/E180.1) TSS (160.2) (SM2540D1) Ammonia-N (50.2) alpha-BHC (E608) 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E626) Total Recoverable Metals: Mercury (E2045.1) Total Recoverable Metals: (E200.8): Mn, Fe | | | | | | | | | | | | | | | | |
| Sampler: Adren Mobeka | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Recoverable Metals: (E200.8): Zn (E200.8): Cu, Pb, Cd, Se | TSS (160.2) (SM2540D1) | BOD5 (20 degrees C) (E405.1) (SM210B_BODCalc) | Surfactants (MBAS) (SM5540C/E425.1) | Cl-, SO4-, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2) (SM2540D1) | Ammonia-N (50.2) | alpha-BHC (E608) | 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E626) | Total Recoverable Metals: Mercury (E2045.1) | Total Recoverable Metals: (E200.8): Mn, Fe | Comments | | | | |
| Outfall 002 | Outfall002_20231231_Comp | 12/31/2023 10725 | WM | 500 mL Poly | 1 | HNO3 | 90 | Yes | X | | | | | | | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | X | | | | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 115 | No | | | X | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | | X | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | X | | | | | | | | | | 48 hours Holding Time NO2 & NO3 | |
| | | | WM | 500 mL Poly | 1 | None | 150 | No | | | | | | | X | | | | | | | | | | 48 hour holding time for turbidity |
| | | | WM | 500 mL Poly | 1 | H2SO4 | 160 | No | | | | | | | | | X | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | X | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | X | | | | |
| | | | WM | 1L Poly | 1 | None | 185 | No | | | | | | | | | X | | | | | | | | |
| 2 | Outfall002_20231231_Comp_Extra | 12/31/2023 10725 | WM | 1 L Glass Amber | 2 | None | 110 | No | | | | | | | | | | | | | | | Hold | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | | H | | | | | | | | | | | Hold | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | H | | | | | | | | | | Hold | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | H | | | | | Hold | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | H | | | | Hold | |

Legend: C=Conditional, R=Routine

| | | |
|---|---|--|
| Relinquished By: <i>Mark Dominick</i> Date/Time: 1-2-24 Company: H.A | Received By: <i>Am</i> Date/Time: 1/2/24 1300 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <u>X</u> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>Am</i> Date/Time: 1/2/24 16:51 Company: <i>EC</i> | Received By: <i>Mark Dominick</i> Date/Time: 1/2/24 1651 | Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <u>X</u> |



570-166496 Chain of Custody

0.7/1.1 0.6/0.8
0.4/0.6 5.0/4

CHAIN OF CUSTODY FORM

| | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------------|--|--------------------------------------|---------------------------------|------------|--------------|---|----------|----------|--------|---|--|--|--|--|--|---|--------------------------------|--|--|--|
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall [001, 002, 011, 018] Outfall 002 Comp | | | | | R R R R R C ANALYSIS REQUIRED | | | | | | | | | | | | | | |
| Eurofins CalScience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (c ell) | | | | | Comments | | | | | | | | | | | | | | |
| Eurofins CalScience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#202-2-2--Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins CalScience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (c ell) | | | | | | | | | | | | | | | Total Dissolved Metals: (E200.8): Cu, Pb, Cd, Se | Cyanide (SM4500-CN-E / E335.2) | Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E908.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | Total Dissolved Metals: Mercury (E245.1) | Total Dissolved Metals (E200.8): Mn, Fe |
| Sampler: Adrien Mobeka | | | | | | | | | | | | | | | | | | | | | |
| Sample Description | Sample ID | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | | | | | | | | | | | | | |
| 3 Outfall 002 | Outfall002_20231231_Comp_F | 12/31/2023 10725 | WM1 | 1L Poly | 1 | None | 200 | Yes | X | | | | | | | | | | | | |
| | | | WM1 | borosilicate vials | 2 | None | 320 | No | | | | | | | | | | | | | |
| | Outfall002_20231231_Comp | 12/31/2023 10725 | WM1 | 500 mL Poly | 1 | NaOH | 220 | No | No | X | | | | | | | | | | | |
| | | | WM1 | 2.5 Gal Cube 1 L Glass Amber | 1 1 | None None | 225 230 | No No | No No | X X | Unfiltered and unpreserved analysis. Separate RAD onto another work order. Analyze duplicate, not MS/MSD. | | | | | | | | | | |
| Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi Annual | | | | | | | | | | | | | | | | | | | | | |
| Relinquished By: Date/Time: 1-2-2024 12:30 Company: H&A | | | Received By: Date/Time: 1/2/24 1300 | | | | | | | | | | | | | | | | | | |
| Relinquished By: Date/Time: 1/2/24 16:51 Company: EC | | | Received By: Date/Time: 1/2/24 1651 | | | | | | | | | | | | | | | | | | |
| Relinquished By: _____ Date/Time: _____ Company: _____ | | | Received By: _____ Date/Time: _____ | | | | | | | | | | | | | | | | | | |

Eurofins Calscience
 2841 Dow Avenue, Suite 100
 Tustin, CA 92780
 Phone: 714-895-5494

Chain of Custody Record



Environment Testing



| Client Information (Sub Contract Lab) | | Lab PM: Patel, Virendra | Carrier Tracking No(s): 570-335811.1 | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------------------------|---|---|---------------------------------|--|------------------------------------|---|-----------------------------|----------------------------|------------------------------------|--|-----------------------------------|---|---|---|---|---|---|---|----------------------------|--|--|--|--|--|--|--|
| Client Contact: Shipping/Receiving | | E-Mail: Virendra.Patel@eurofins.com | Page: Page 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Company: TestAmerica Laboratories, Inc. | | State of Origin: California | Job #: 570-166496-3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email: | | Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Izmza L - EDA Z - other (Specify) Other: | | | | | | | | | | | | | | | | | | | | | | | | | |
| Due Date Requested: 2/6/2024 TAT Requested (days): | | Analysis Requested | | | | | | | | | | | | | | | | | | | | | | | | | |
| PO #: WO #: Project #: 57013187 SSOV#: | | <table border="1"> <thead> <tr> <th>Analysis Requested</th> <th>900.0/Evaporation Gross Alpha/Beta</th> <th>906.0/LSC_Dist_Susp Tritium</th> <th>905.5/90/PrecSep_7 Strontium-90</th> <th>903.0/PrecSep_21 Radium-226</th> <th>904.0/PrecSep_0 Radium-226</th> <th>A01R_U/EXchrom_Actin Total Uranium</th> <th>901.4_Ca/III_Geo_0 K-40 and Cesium-137</th> </tr> </thead> <tbody> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>Perform MS/MSD (Yes or No)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | Analysis Requested | 900.0/Evaporation Gross Alpha/Beta | 906.0/LSC_Dist_Susp Tritium | 905.5/90/PrecSep_7 Strontium-90 | 903.0/PrecSep_21 Radium-226 | 904.0/PrecSep_0 Radium-226 | A01R_U/EXchrom_Actin Total Uranium | 901.4_Ca/III_Geo_0 K-40 and Cesium-137 | Field Filtered Sample (Yes or No) | X | X | X | X | X | X | X | Perform MS/MSD (Yes or No) | | | | | | | |
| Analysis Requested | 900.0/Evaporation Gross Alpha/Beta | 906.0/LSC_Dist_Susp Tritium | 905.5/90/PrecSep_7 Strontium-90 | 903.0/PrecSep_21 Radium-226 | 904.0/PrecSep_0 Radium-226 | A01R_U/EXchrom_Actin Total Uranium | 901.4_Ca/III_Geo_0 K-40 and Cesium-137 | | | | | | | | | | | | | | | | | | | | |
| Field Filtered Sample (Yes or No) | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | |
| Perform MS/MSD (Yes or No) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Identification - Client ID (Lab ID) Outfall002_20231231_Comp (570-166496-1) | | Sample Date 12/31/23 | Sample Time 07:25 Pacific | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=soil, G=gas, A=air) | Preservation Code Water | Special Instructions/Note: Boeing SSFL: DO NOT FILTER, use prep date from preservation. Ok to Preserve | | | | | | | | | | | | | | | | | | | | |
| <p>Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.</p> | | <p>Possible Hazard Identification <input type="checkbox"/> Unconfirmed <input type="checkbox"/> Deliverable Requested: I, II, III, IV, Other (specify) <input type="checkbox"/> Empty Kit Relinquished by: <input type="checkbox"/> Relinquished by: <input type="checkbox"/> Relinquished by: <input type="checkbox"/> Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab Special Instructions/QC Requirements: Primary Deliverable Rank: 2</p> | | <p>Received by: Richard Thomley Date/Time: JAN 04 2024 09:10 Company: ETA STL Date/Time: Date/Time: Date/Time: Cooler Temperature(s) °C and Other Remarks:</p> | | | | | | | | | | | | | | | | | | | | | | | | | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-166496-3

Login Number: 166496

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-166496-3

Login Number: 166496

List Number: 2

Creator: Thornley, Richard W

List Source: Eurofins St. Louis

List Creation: 01/04/24 11:37 AM

| Question | Answer | Comment |
|--|--------|----------------------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | Preserved on arrival |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-166496-3

Login Number: 166496

List Number: 4

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 01/05/24 10:25 AM

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |





ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/23/2024 8:44:27 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 002 - Comp

JOB NUMBER

570-166496-4

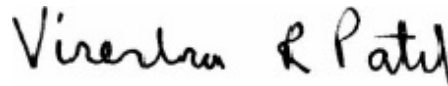
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Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



Generated
1/23/2024 8:44:27 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

Qualifiers

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| BU | Sample was prepped beyond the specified holding time |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

Job ID: 570-166496-4

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Job Narrative 570-166496-4

Receipt

The samples were received on 1/2/2024 4:51 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.6° C, 0.8° C and 1.1° C.

GC/MS Semi VOA

Method 625.1 SIM: The following sample was prepared outside of preparation holding time: Outfall002_20231231_Comp (570-166496-1).

Method 625.1 SIM: The method blank for preparation batch 570-401986 and analytical batch 570-402747 contained Dimethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-401986. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 625Sim

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

Client Sample ID: Outfall002_20231231_Comp

Lab Sample ID: 570-166496-1

No Detections.

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Client Sample ID: Outfall002_20231231_Comp
Date Collected: 12/31/23 07:25
Date Received: 01/02/24 16:51

Lab Sample ID: 570-166496-1
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Bis(2-ethylhexyl) phthalate | ND | BU | 5.0 | 3.6 | ug/L | | 01/18/24 10:38 | 01/19/24 17:04 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4,6-Tribromophenol (Surr) | 70 | | 28 - 127 | 01/18/24 10:38 | 01/19/24 17:04 | 1 |
| 2-Fluorobiphenyl (Surr) | 47 | | 31 - 120 | 01/18/24 10:38 | 01/19/24 17:04 | 1 |
| 2-Fluorophenol (Surr) | 36 | | 17 - 120 | 01/18/24 10:38 | 01/19/24 17:04 | 1 |
| Nitrobenzene-d5 (Surr) | 52 | | 27 - 120 | 01/18/24 10:38 | 01/19/24 17:04 | 1 |
| Phenol-d6 (Surr) | 23 | | 10 - 120 | 01/18/24 10:38 | 01/19/24 17:04 | 1 |
| p-Terphenyl-d14 (Surr) | 52 | | 45 - 120 | 01/18/24 10:38 | 01/19/24 17:04 | 1 |

Surrogate Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TBP | FBP | 2FP | NBZ | PHL6 | TPHd14 |
|---------------------|--------------------------|----------|----------|----------|----------|----------|----------|
| | | (28-127) | (31-120) | (17-120) | (27-120) | (10-120) | (45-120) |
| 570-166496-1 | Outfall002_20231231_Comp | 70 | 47 | 36 | 52 | 23 | 52 |
| LCS 570-401986/2-A | Lab Control Sample | 83 | 66 | 57 | 63 | 37 | 66 |
| LCSD 570-401986/3-A | Lab Control Sample Dup | 86 | 68 | 53 | 61 | 35 | 69 |
| MB 570-401986/1-A | Method Blank | 74 | 51 | 34 | 54 | 23 | 64 |

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL6 = Phenol-d6 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 570-401986/1-A
Matrix: Water
Analysis Batch: 402747

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 401986

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------------|-----------------|----------|-----|------|---|----------------|----------------|---------|
| Bis(2-ethylhexyl) phthalate | ND | | 5.0 | 3.6 | ug/L | | 01/17/24 13:32 | 01/19/24 13:42 | 1 |
| Surrogate | MB %Recovery | MB Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 2,4,6-Tribromophenol (Surr) | 74 | | 28 - 127 | | | | 01/17/24 13:32 | 01/19/24 13:42 | 1 |
| 2-Fluorobiphenyl (Surr) | 51 | | 31 - 120 | | | | 01/17/24 13:32 | 01/19/24 13:42 | 1 |
| 2-Fluorophenol (Surr) | 34 | | 17 - 120 | | | | 01/17/24 13:32 | 01/19/24 13:42 | 1 |
| Nitrobenzene-d5 (Surr) | 54 | | 27 - 120 | | | | 01/17/24 13:32 | 01/19/24 13:42 | 1 |
| Phenol-d6 (Surr) | 23 | | 10 - 120 | | | | 01/17/24 13:32 | 01/19/24 13:42 | 1 |
| p-Terphenyl-d14 (Surr) | 64 | | 45 - 120 | | | | 01/17/24 13:32 | 01/19/24 13:42 | 1 |

Lab Sample ID: LCS 570-401986/2-A
Matrix: Water
Analysis Batch: 402747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401986

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------|------------------|------------------|------------------|------|---|------|----------------|
| Bis(2-ethylhexyl) phthalate | 20.0 | 19.8 | | ug/L | | 99 | 29 - 137 |
| Surrogate | LCS %Recovery | LCS Qualifier | Limits | | | | |
| 2,4,6-Tribromophenol (Surr) | 83 | | 28 - 127 | | | | |
| 2-Fluorobiphenyl (Surr) | 66 | | 31 - 120 | | | | |
| 2-Fluorophenol (Surr) | 57 | | 17 - 120 | | | | |
| Nitrobenzene-d5 (Surr) | 63 | | 27 - 120 | | | | |
| Phenol-d6 (Surr) | 37 | | 10 - 120 | | | | |
| p-Terphenyl-d14 (Surr) | 66 | | 45 - 120 | | | | |

Lab Sample ID: LCSD 570-401986/3-A
Matrix: Water
Analysis Batch: 402747

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 401986

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|-----------------------------|-------------------|-------------------|-------------------|------|---|------|----------------|-----|-------|
| Bis(2-ethylhexyl) phthalate | 20.0 | 17.6 | | ug/L | | 88 | 29 - 137 | 12 | 50 |
| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits | | | | | | |
| 2,4,6-Tribromophenol (Surr) | 86 | | 28 - 127 | | | | | | |
| 2-Fluorobiphenyl (Surr) | 68 | | 31 - 120 | | | | | | |
| 2-Fluorophenol (Surr) | 53 | | 17 - 120 | | | | | | |
| Nitrobenzene-d5 (Surr) | 61 | | 27 - 120 | | | | | | |
| Phenol-d6 (Surr) | 35 | | 10 - 120 | | | | | | |
| p-Terphenyl-d14 (Surr) | 69 | | 45 - 120 | | | | | | |

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

GC/MS Semi VOA

Prep Batch: 401986

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 625.1 | |
| MB 570-401986/1-A | Method Blank | Total/NA | Water | 625.1 | |
| LCS 570-401986/2-A | Lab Control Sample | Total/NA | Water | 625.1 | |
| LCSD 570-401986/3-A | Lab Control Sample Dup | Total/NA | Water | 625.1 | |

Analysis Batch: 402747

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|-----------|------------|
| 570-166496-1 | Outfall002_20231231_Comp | Total/NA | Water | 625.1 SIM | 401986 |
| MB 570-401986/1-A | Method Blank | Total/NA | Water | 625.1 SIM | 401986 |
| LCS 570-401986/2-A | Lab Control Sample | Total/NA | Water | 625.1 SIM | 401986 |
| LCSD 570-401986/3-A | Lab Control Sample Dup | Total/NA | Water | 625.1 SIM | 401986 |

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

Client Sample ID: Outfall002_20231231_Comp

Lab Sample ID: 570-166496-1

Date Collected: 12/31/23 07:25

Matrix: Water

Date Received: 01/02/24 16:51

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Prep | 625.1 | | | 500 mL | 1 mL | 401986 | 01/18/24 10:38 | OAJ3 | EET CAL 4 |
| Total/NA | Analysis | 625.1 SIM | | 1 | 1 mL | 1 mL | 402747 | 01/19/24 17:04 | ULLI | EET CAL 4 |

Instrument ID: GCMSJJJ

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|------------|---|-----------------------|-----------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

| Method | Method Description | Protocol | Laboratory |
|-----------|--|-----------|------------|
| 625.1 SIM | Semivolatile Organic Compounds GC/MS (SIM) | EPA | EET CAL 4 |
| 625.1 | Liquid-Liquid Extraction | 40CFR136A | EET CAL 4 |

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 002 - Comp

Job ID: 570-166496-4

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-166496-1 | Outfall002_20231231_Comp | Water | 12/31/23 07:25 | 01/02/24 16:51 |

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Virendra Patel

From: Miller, Katherine <KMiller@haleyaldrich.com>
Sent: Tuesday, January 16, 2024 9:31 AM
To: Virendra Patel
Cc: Pehlivan, Victoria
Subject: 570-166496-1

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Virendra,

Could you ask QA to review the bis(2-Ethylhexyl)phthalate for 570-166496-1 (Outfall002_20231231_Comp)? Please ask them to comment on potential lab contamination. Also please reextract and reanalyze.

Thanks,

Katherine Miller
Project Manager

Haley & Aldrich, Inc.
600 South Meyer Ave | Suite 100
Tucson, AZ 85701

T: (520) 289-8606

C: (520) 904-6944

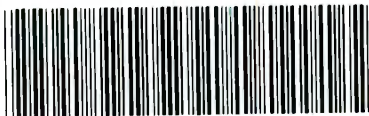
www.haleyaldrich.com

CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | | | | | | | | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall (001, 002, 011, 018) Outfall 002 Comp | | | | | | | | | ANALYSIS REQUIRED | | | | | | | | | | | |
|--|--------------------------------|---------------------|---------------|-----------------|------------|--------------|----------|--------|---|--|--|-------------------------------------|---|---------------------------------|-----------------------|-------------------|------------------|--|--|--|----------|--|------|---------------------------------|------------------------------------|--|--|--|--|
| Eurofins Calscience Project Manager: Videndra Patel 2341 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | | | | | | | | Project Manager: Katherine Miller 520.289.8406, 520.904.6944 (cell) Field Manager: Mark Dominick 978.234.5433, 818.599.0702 (cell) | | | | | | | | | Comments | | | | | | | | | | | |
| Eurofins Calscience's services under this CxC shall be performed in accordance with the T&Cs within Blanket Service Agreement #2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | | | | | | | | Sampler: Adren Mobeka | | | | | | | | | Total Recoverable Metals: (E200.8): Zn, Cu, Pb, Cd, Se TOC/D (total all temperature) (E10100) BOD5 (20 degrees C) (E405.1)(SM210B_BODCalc) Surfactants (MBAS) (SM5540C/E425.1) Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) Turbidity, TDS (SM2540C/E180.1) TSS (160.2 (SM2540D)) Ammonia-N (550.2) alpha-BHC (E608) 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E626) Total Recoverable Metals: Mercury (E245.4) Total Recoverable Metals: (E200.8): Mn, Fe | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Recoverable Metals: (E200.8): Zn, Cu, Pb, Cd, Se | TOC/D (total all temperature) (E10100) | BOD5 (20 degrees C) (E405.1)(SM210B_BODCalc) | Surfactants (MBAS) (SM5540C/E425.1) | Cl-, SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (E300) | Turbidity, TDS (SM2540C/E180.1) | TSS (160.2 (SM2540D)) | Ammonia-N (550.2) | alpha-BHC (E608) | 2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs E626) | Total Recoverable Metals: Mercury (E245.4) | Total Recoverable Metals: (E200.8): Mn, Fe | Comments | | | | | | | | |
| Outfall 002 | Outfall002_20231231_Comp | 12/31/2023 10725 | WM | 500 mL Poly | 1 | HNO3 | 90 | Yes | X | | | | | | | | | | | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | X | | | | | | | | | | | | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 115 | No | | | X | | | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | | X | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | | X | | | | | | | | | | 48 hours Holding Time NO2 & NO3 | | | | | |
| | | | WM | 500 mL Poly | 1 | None | 150 | No | | | | | | | X | | | | | | | | | | 48 hour holding time for turbidity | | | | |
| | | | WM | 500 mL Poly | 1 | H2SO4 | 160 | No | | | | | | | | | X | | | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | | X | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | | | X | | | | | | | | |
| | | | WM | 1L Poly | 1 | None | 185 | No | | | | | | | | | X | | | | | | | | | | | | |
| 2 | Outfall002_20231231_Comp_Extra | 12/31/2023 10725 | WM | 1 L Glass Amber | 2 | None | 110 | No | | -1 | | | | | | | | | | | | | Hold | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 120 | No | | | | H | | | | | | | | | | | | Hold | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | | H | | | | | | | | | | | Hold | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 170 | No | | | | | | | | | | H | | | | | | Hold | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 180 | No | | | | | | | | | | | H | | | | | Hold | | | | | |

Legend: C=Conditional, R=Routine





| | | |
|---|--|---|
| Relinquished By: <i>Mark Dominick</i> Date/Time: 1-2-24 Company: H.A | Received By: <i>Am</i> Date/Time: 1/2/24 1300 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>Am</i> Date/Time: 1/2/24 16:51 Company: <i>Am</i> | Received By: <i>Am</i> Date/Time: 1/2/24 1651 | Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <input checked="" type="checkbox"/> |



570-166496 Chain of Custody

0.7/1.1 0.6/0.8
0.4/0.6 5014

CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall [001, 002, 011, 018] Outfall 002 Comp | | | | | R R R R R C ANALYSIS REQUIRED | | | | | | | | | | | | | | | | | | | |
|--|----------------------------|--|---------------|---------------------------------|---|--------------|---|----------|---|---|---|---|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (c ell) | | | | | Total Dissolved Metals: (E200.8): Cu, Pb, Cd, Se Cyanide (SM4500-CN-E / E335.2) Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E908.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | | | | | | | | | | | | | | | | | | | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#202-2-2--Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (c ell) | | | | | | | | | | | | | | | Total Dissolved Metals: Mercury (E245.1) Total Dissolved Metals (E200.8): Mn, Fe | | | | | | | | | |
| Sampler: Adrien Mobeka | | | | | | | | | | | | | | | | | Comments | | | | | | | | | |
| Sample Description | Sample ID | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | | | | | | | | | | | | | | | | | | |
| Outfall 002 | Outfall002_20231231_Comp_F | 12/31/2023 10725 | WM1 | 1L Poly | 1 | None | 200 | Yes | X | | | | | | | | | | | | | | | | | |
| | | | WM1 | borosilicate vials | 2 | None | 320 | No | | | X | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. | | | | | | | | | | | | | | |
| | Outfall002_20231231_Comp | 12/31/2023 10725 | WM1 | 500 mL Poly | 1 | NaOH | 220 | No | | X | | | | | | | | | | | | | | | | |
| | | | WM1 | 2.5 Gal Cube 1 L Glass Amber | 1 1 | None None | 225 230 | No No | | | X | Unfiltered and unpreserved analysis. Separate RAD onto another work order. Analyze duplicate, not MS/MSD. | | | | | | | | | | | | | | |
| Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi Annual | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished By:  Date/Time: 1-2-2024 12:30 Company: H&A | | | | | Received By:  Date/Time: 1/2/24 1300 | | | | | | | | | | | | | | | | | | | | | |
| Relinquished By:  Date/Time: 1/2/24 16:51 Company: EC | | | | | Received By:  Date/Time: 1/2/24 1651 | | | | | | | | | | | | | | | | | | | | | |
| Relinquished By: _____ Date/Time: _____ Company: _____ | | | | | Received By: _____ Date/Time: _____ | | | | | | | | | | | | | | | | | | | | | |

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-166496-4

Login Number: 166496

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 12/30/2023 10:25:43 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 008 - Grab

JOB NUMBER

570-165685-1

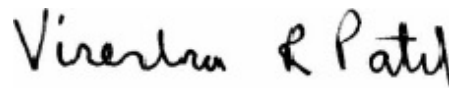
Eurofins Calscience

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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12/30/2023 10:25:43 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Grab

Job ID: 570-165685-1

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 008 - Grab

Job ID: 570-165685-1

Job ID: 570-165685-1

Eurofins Calscience

Job Narrative 570-165685-1

Receipt

The samples were received on 12/21/2023 5:10 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Grab

Job ID: 570-165685-1

Client Sample ID: Outfall008_20231221_Grab

Lab Sample ID: 570-165685-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Grab

Job ID: 570-165685-1

General Chemistry

Client Sample ID: Outfall008_20231221_Grab

Date Collected: 12/21/23 12:00

Date Received: 12/21/23 17:10

Lab Sample ID: 570-165685-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| HEM (Oil & Grease) (1664A) | ND | | 0.98 | 0.50 | mg/L | | 12/22/23 12:30 | 12/27/23 09:24 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Grab

Job ID: 570-165685-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-395729/1-A
Matrix: Water
Analysis Batch: 396256

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 395729

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| HEM (Oil & Grease) | ND | | 1.0 | 0.51 | mg/L | | 12/22/23 12:30 | 12/27/23 09:24 | 1 |

Lab Sample ID: LCS 570-395729/2-A
Matrix: Water
Analysis Batch: 396256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 395729

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|-------------|------------|---------------|------|---|------|-------------|
| HEM (Oil & Grease) | 40.0 | 31.2 | | mg/L | | 78 | 78 - 114 |

Lab Sample ID: LCSD 570-395729/3-A
Matrix: Water
Analysis Batch: 396256

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 395729

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| HEM (Oil & Grease) | 40.0 | 31.5 | | mg/L | | 79 | 78 - 114 | 1 | 18 |

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Grab

Job ID: 570-165685-1

General Chemistry

Prep Batch: 395729

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165685-1 | Outfall008_20231221_Grab | Total/NA | Water | 1664A | |
| MB 570-395729/1-A | Method Blank | Total/NA | Water | 1664A | |
| LCS 570-395729/2-A | Lab Control Sample | Total/NA | Water | 1664A | |
| LCSD 570-395729/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | |

Analysis Batch: 396256

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165685-1 | Outfall008_20231221_Grab | Total/NA | Water | 1664A | 395729 |
| MB 570-395729/1-A | Method Blank | Total/NA | Water | 1664A | 395729 |
| LCS 570-395729/2-A | Lab Control Sample | Total/NA | Water | 1664A | 395729 |
| LCSD 570-395729/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | 395729 |



Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Grab

Job ID: 570-165685-1

Client Sample ID: Outfall008_20231221_Grab

Lab Sample ID: 570-165685-1

Date Collected: 12/21/23 12:00

Matrix: Water

Date Received: 12/21/23 17:10

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Prep | 1664A | | | 1023 mL | 1000 mL | 395729 | 12/22/23 12:30 | YTB4 | EET CAL 4 |
| Total/NA | Analysis | 1664A | | 1 | | | 396256 | 12/27/23 09:24 | VB5S | EET CAL 4 |

Instrument ID: NO EQUIQ

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Grab

Job ID: 570-165685-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|------------|---|-----------------------|-----------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Grab

Job ID: 570-165685-1

| Method | Method Description | Protocol | Laboratory |
|--------|---------------------------|----------|------------|
| 1664A | HEM and SGT-HEM | 1664A | EET CAL 4 |
| 1664A | HEM and SGT-HEM (Aqueous) | 1664A | EET CAL 4 |

Protocol References:

1664A = EPA-821-98-002

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Grab

Job ID: 570-165685-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165685-1 | Outfall008_20231221_Grab | Water | 12/21/23 12:00 | 12/21/23 17:10 |

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Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165685-1

Login Number: 165685

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/11/2024 8:03:28 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 008 - Comp

JOB NUMBER

570-165909-1

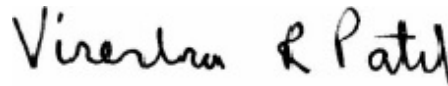
Eurofins Calscience

Job Notes

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Authorization



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1/11/2024 8:03:28 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Qualifiers

HPLC/IC

| Qualifier | Qualifier Description |
|-----------|------------------------------|
| BU | Analyzed out of holding time |

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| BU | Sample was prepped beyond the specified holding time |
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |

General Chemistry

| Qualifier | Qualifier Description |
|-----------|---|
| BA | Relative percent difference out of control |
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| LN | MS and/or MSD below acceptance limits. See Blank Spike (LCS) |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| ⌘ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Job ID: 570-165909-1

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Job Narrative 570-165909-1

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.5° C, 1.5° C and 2.5° C.

HPLC/IC

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method Filtration: The following samples were not filtered within 15 minutes of sample collection as required by the method: Outfall008_20231222_Comp_F (570-165909-2), Outfall008_20231222_Comp_F (570-165909-2[MS]) and Outfall008_20231222_Comp_F (570-165909-2[MSD]). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method Kelada 01: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 570-398571 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Client Sample ID: Outfall008_20231222_Comp

Lab Sample ID: 570-165909-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-------|-------|------|---------|---|-------------|-------------------|
| Chloride | 2.5 | | 1.0 | 0.36 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.64 | | 0.10 | 0.020 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 1.7 | | 1.0 | 0.18 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate Nitrite as N | 0.64 | | 0.10 | 0.020 | mg/L | 1 | | NO2NO3 Calc | Total/NA |
| Antimony | 4.4 | | 2.0 | 0.36 | ug/L | 1 | | 200.8 | Total Recoverable |
| Cadmium | 0.17 | J,DX | 1.0 | 0.13 | ug/L | 1 | | 200.8 | Total Recoverable |
| Copper | 1.3 | J,DX | 2.0 | 0.32 | ug/L | 1 | | 200.8 | Total Recoverable |
| Lead | 0.60 | J,DX | 1.0 | 0.12 | ug/L | 1 | | 200.8 | Total Recoverable |
| Nickel | 1.8 | J,DX | 2.0 | 0.17 | ug/L | 1 | | 200.8 | Total Recoverable |
| Thallium | 0.18 | J,DX | 1.0 | 0.11 | ug/L | 1 | | 200.8 | Total Recoverable |
| Zinc | 5.6 | J,DX | 20 | 2.8 | ug/L | 1 | | 200.8 | Total Recoverable |
| Ammonia | 0.043 | J,DX | 0.075 | 0.029 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 63 | | 10 | 8.7 | mg/L | 1 | | SM 2540C | Total/NA |
| Total Suspended Solids | 6.2 | | 1.0 | 0.80 | mg/L | 1 | | SM 2540D | Total/NA |

Client Sample ID: Outfall008_20231222_Comp_F

Lab Sample ID: 570-165909-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| Antimony | 1.2 | J,DX BU | 2.0 | 0.36 | ug/L | 1 | | 200.8 | Dissolved |
| Copper | 1.8 | J,DX BU | 2.0 | 0.32 | ug/L | 1 | | 200.8 | Dissolved |
| Lead | 0.15 | J,DX BU | 1.0 | 0.12 | ug/L | 1 | | 200.8 | Dissolved |
| Nickel | 1.2 | J,DX BU | 2.0 | 0.17 | ug/L | 1 | | 200.8 | Dissolved |
| Zinc | 4.7 | J,DX BU | 20 | 2.8 | ug/L | 1 | | 200.8 | Dissolved |

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: EPA 300.0 - Anions, Ion Chromatography

Client Sample ID: Outfall008_20231222_Comp

Date Collected: 12/22/23 09:00

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 2.5 | | 1.0 | 0.36 | mg/L | | | 12/23/23 08:43 | 1 |
| Nitrite as N | ND | | 0.10 | 0.043 | mg/L | | | 12/23/23 08:43 | 1 |
| Nitrate as N | 0.64 | | 0.10 | 0.020 | mg/L | | | 12/23/23 08:43 | 1 |
| Sulfate | 1.7 | | 1.0 | 0.18 | mg/L | | | 12/23/23 08:43 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: EPA 314.0 - Perchlorate (IC)

Client Sample ID: Outfall008_20231222_Comp

Date Collected: 12/22/23 09:00

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Perchlorate | ND | | 2.0 | 0.91 | ug/L | | | 12/28/23 07:37 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: EPA NO2NO3 Calc - Nitrogen, Nitrate-Nitrite

Client Sample ID: Outfall008_20231222_Comp

Date Collected: 12/22/23 09:00

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Nitrate Nitrite as N | 0.64 | | 0.10 | 0.020 | mg/L | | | 12/23/23 08:43 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: Outfall008_20231222_Comp

Date Collected: 12/22/23 09:00

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Antimony | 4.4 | | 2.0 | 0.36 | ug/L | | 12/27/23 09:29 | 12/27/23 14:12 | 1 |
| Cadmium | 0.17 | J,DX | 1.0 | 0.13 | ug/L | | 12/27/23 09:29 | 12/27/23 14:12 | 1 |
| Copper | 1.3 | J,DX | 2.0 | 0.32 | ug/L | | 12/27/23 09:29 | 12/27/23 14:12 | 1 |
| Lead | 0.60 | J,DX | 1.0 | 0.12 | ug/L | | 12/27/23 09:29 | 12/27/23 14:12 | 1 |
| Nickel | 1.8 | J,DX | 2.0 | 0.17 | ug/L | | 12/27/23 09:29 | 12/27/23 14:12 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | 12/27/23 09:29 | 12/27/23 14:12 | 1 |
| Silver | ND | | 1.0 | 0.23 | ug/L | | 12/27/23 09:29 | 12/27/23 14:12 | 1 |
| Thallium | 0.18 | J,DX | 1.0 | 0.11 | ug/L | | 12/27/23 09:29 | 12/27/23 14:12 | 1 |
| Zinc | 5.6 | J,DX | 20 | 2.8 | ug/L | | 12/27/23 09:29 | 12/27/23 14:12 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: Outfall008_20231222_Comp_F

Date Collected: 12/22/23 09:00

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-2

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Antimony | 1.2 | J,DX BU | 2.0 | 0.36 | ug/L | | | 01/04/24 16:49 | 1 |
| Cadmium | ND | BU | 1.0 | 0.13 | ug/L | | | 01/04/24 16:49 | 1 |
| Copper | 1.8 | J,DX BU | 2.0 | 0.32 | ug/L | | | 01/04/24 16:49 | 1 |
| Lead | 0.15 | J,DX BU | 1.0 | 0.12 | ug/L | | | 01/04/24 16:49 | 1 |
| Nickel | 1.2 | J,DX BU | 2.0 | 0.17 | ug/L | | | 01/04/24 16:49 | 1 |
| Selenium | ND | BU | 2.0 | 0.52 | ug/L | | | 01/04/24 16:49 | 1 |
| Silver | ND | BU | 1.0 | 0.23 | ug/L | | | 01/04/24 16:49 | 1 |
| Thallium | ND | BU | 1.0 | 0.11 | ug/L | | | 01/04/24 16:49 | 1 |
| Zinc | 4.7 | J,DX BU | 20 | 2.8 | ug/L | | | 01/04/24 16:49 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: Outfall008_20231222_Comp
Date Collected: 12/22/23 09:00
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/09/24 13:04 | 01/10/24 14:23 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: EPA 245.1 - Mercury (CVAA) - Dissolved

Client Sample ID: Outfall008_20231222_Comp_F
Date Collected: 12/22/23 09:00
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-2
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | BU | 0.20 | 0.12 | ug/L | | 01/09/24 15:13 | 01/10/24 13:32 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

General Chemistry

Client Sample ID: Outfall008_20231222_Comp

Date Collected: 12/22/23 09:00

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Ammonia (EPA 350.1) | 0.043 | J,DX | 0.075 | 0.029 | mg/L | | 01/05/24 09:38 | 01/05/24 12:08 | 1 |
| Cyanide, Total (EPA Kelada 01) | ND | | 5.0 | 2.5 | ug/L | | | 01/04/24 14:37 | 1 |
| Total Dissolved Solids (SM 2540C) | 63 | | 10 | 8.7 | mg/L | | | 12/28/23 12:15 | 1 |
| Total Suspended Solids (SM 2540D) | 6.2 | | 1.0 | 0.80 | mg/L | | | 12/28/23 20:44 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-395973/5
Matrix: Water
Analysis Batch: 395973

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Nitrite as N | ND | | 0.10 | 0.043 | mg/L | | | 12/23/23 07:02 | 1 |
| Nitrate as N | ND | | 0.10 | 0.020 | mg/L | | | 12/23/23 07:02 | 1 |

Lab Sample ID: LCS 570-395973/6
Matrix: Water
Analysis Batch: 395973

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------|-------------|------------|---------------|------|---|------|-------------|
| Nitrite as N | 2.50 | 2.60 | | mg/L | | 104 | 90 - 110 |
| Nitrate as N | 5.00 | 4.88 | | mg/L | | 98 | 90 - 110 |

Lab Sample ID: LCSD 570-395973/7
Matrix: Water
Analysis Batch: 395973

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Nitrite as N | 2.50 | 2.59 | | mg/L | | 104 | 90 - 110 | 0 | 15 |
| Nitrate as N | 5.00 | 4.88 | | mg/L | | 98 | 90 - 110 | 0 | 15 |

Lab Sample ID: MB 570-395974/5
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Chloride | ND | | 1.0 | 0.36 | mg/L | | | 12/23/23 07:02 | 1 |
| Sulfate | ND | | 1.0 | 0.18 | mg/L | | | 12/23/23 07:02 | 1 |

Lab Sample ID: LCS 570-395974/6
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 50.0 | 48.0 | | mg/L | | 96 | 90 - 110 |
| Sulfate | 50.0 | 48.5 | | mg/L | | 97 | 90 - 110 |

Lab Sample ID: LCSD 570-395974/7
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Chloride | 50.0 | 48.0 | | mg/L | | 96 | 90 - 110 | 0 | 15 |
| Sulfate | 50.0 | 48.4 | | mg/L | | 97 | 90 - 110 | 0 | 15 |

Lab Sample ID: MB 570-396590/5
Matrix: Water
Analysis Batch: 396590

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Nitrite as N | ND | | 0.10 | 0.043 | mg/L | | | 12/28/23 06:19 | 1 |
| Nitrate as N | ND | | 0.10 | 0.020 | mg/L | | | 12/28/23 06:19 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 570-396590/6
Matrix: Water
Analysis Batch: 396590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------|-------------|------------|---------------|------|---|------|-------------|
| Nitrite as N | 2.50 | 2.46 | | mg/L | | 99 | 90 - 110 |
| Nitrate as N | 5.00 | 4.85 | | mg/L | | 97 | 90 - 110 |

Lab Sample ID: LCSD 570-396590/7
Matrix: Water
Analysis Batch: 396590

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Nitrite as N | 2.50 | 2.48 | | mg/L | | 99 | 90 - 110 | 1 | 15 |
| Nitrate as N | 5.00 | 4.87 | | mg/L | | 97 | 90 - 110 | 0 | 15 |

Lab Sample ID: 570-165909-1 MS
Matrix: Water
Analysis Batch: 396590

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Nitrite as N | ND | | 2.50 | 2.71 | BU | mg/L | | 108 | 80 - 120 |
| Nitrate as N | 0.64 | | 5.00 | 5.57 | BU | mg/L | | 99 | 80 - 120 |

Lab Sample ID: 570-165909-1 MSD
Matrix: Water
Analysis Batch: 396590

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Nitrite as N | ND | | 2.50 | 2.66 | BU | mg/L | | 106 | 80 - 120 | 2 | 20 |
| Nitrate as N | 0.64 | | 5.00 | 5.53 | BU | mg/L | | 98 | 80 - 120 | 1 | 20 |

Lab Sample ID: MB 570-396591/5
Matrix: Water
Analysis Batch: 396591

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Chloride | ND | | 1.0 | 0.36 | mg/L | | | 12/28/23 06:19 | 1 |
| Sulfate | ND | | 1.0 | 0.18 | mg/L | | | 12/28/23 06:19 | 1 |

Lab Sample ID: LCS 570-396591/6
Matrix: Water
Analysis Batch: 396591

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 50.0 | 48.3 | | mg/L | | 97 | 90 - 110 |
| Sulfate | 50.0 | 48.6 | | mg/L | | 97 | 90 - 110 |

Lab Sample ID: LCSD 570-396591/7
Matrix: Water
Analysis Batch: 396591

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Chloride | 50.0 | 48.4 | | mg/L | | 97 | 90 - 110 | 0 | 15 |
| Sulfate | 50.0 | 48.6 | | mg/L | | 97 | 90 - 110 | 0 | 15 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 570-165909-1 MS
 Matrix: Water
 Analysis Batch: 396591

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Chloride | 2.5 | | 50.0 | 51.6 | | mg/L | | 98 | 80 - 120 |
| Sulfate | 1.7 | | 50.0 | 50.5 | | mg/L | | 98 | 80 - 120 |

Lab Sample ID: 570-165909-1 MSD
 Matrix: Water
 Analysis Batch: 396591

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Chloride | 2.5 | | 50.0 | 51.6 | | mg/L | | 98 | 80 - 120 | 0 | 20 |
| Sulfate | 1.7 | | 50.0 | 50.3 | | mg/L | | 97 | 80 - 120 | 0 | 20 |

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 570-396303/31
 Matrix: Water
 Analysis Batch: 396303

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Perchlorate | ND | | 2.0 | 0.91 | ug/L | | | 12/27/23 23:37 | 1 |

Lab Sample ID: LCS 570-396303/32
 Matrix: Water
 Analysis Batch: 396303

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------|-------------|------------|---------------|------|---|------|-------------|
| Perchlorate | 25.0 | 23.3 | | ug/L | | 93 | 85 - 115 |

Lab Sample ID: LCSD 570-396303/33
 Matrix: Water
 Analysis Batch: 396303

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Perchlorate | 25.0 | 23.0 | | ug/L | | 92 | 85 - 115 | 1 | 15 |

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-396257/1-A
 Matrix: Water
 Analysis Batch: 396472

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 396257

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Antimony | ND | | 2.0 | 0.36 | ug/L | | 12/27/23 09:29 | 12/27/23 14:05 | 1 |
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | 12/27/23 09:29 | 12/27/23 14:05 | 1 |
| Copper | ND | | 2.0 | 0.32 | ug/L | | 12/27/23 09:29 | 12/27/23 14:05 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | 12/27/23 09:29 | 12/27/23 14:05 | 1 |
| Nickel | ND | | 2.0 | 0.17 | ug/L | | 12/27/23 09:29 | 12/27/23 14:05 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | 12/27/23 09:29 | 12/27/23 14:05 | 1 |
| Silver | ND | | 1.0 | 0.23 | ug/L | | 12/27/23 09:29 | 12/27/23 14:05 | 1 |
| Thallium | ND | | 1.0 | 0.11 | ug/L | | 12/27/23 09:29 | 12/27/23 14:05 | 1 |
| Zinc | ND | | 20 | 2.8 | ug/L | | 12/27/23 09:29 | 12/27/23 14:05 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-396257/2-A
Matrix: Water
Analysis Batch: 396472

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 396257

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Antimony | 80.0 | 77.1 | | ug/L | | 96 | 85 - 115 |
| Cadmium | 80.0 | 81.1 | | ug/L | | 101 | 85 - 115 |
| Copper | 80.0 | 80.0 | | ug/L | | 100 | 85 - 115 |
| Lead | 80.0 | 83.3 | | ug/L | | 104 | 85 - 115 |
| Nickel | 80.0 | 80.2 | | ug/L | | 100 | 85 - 115 |
| Selenium | 80.0 | 82.9 | | ug/L | | 104 | 85 - 115 |
| Silver | 80.0 | 81.4 | | ug/L | | 102 | 85 - 115 |
| Thallium | 80.0 | 82.3 | | ug/L | | 103 | 85 - 115 |
| Zinc | 80.0 | 80.0 | | ug/L | | 100 | 85 - 115 |

Lab Sample ID: LCSD 570-396257/3-A
Matrix: Water
Analysis Batch: 396472

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 396257

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Antimony | 80.0 | 79.8 | | ug/L | | 100 | 85 - 115 | 3 | 20 |
| Cadmium | 80.0 | 80.2 | | ug/L | | 100 | 85 - 115 | 1 | 20 |
| Copper | 80.0 | 80.6 | | ug/L | | 101 | 85 - 115 | 1 | 20 |
| Lead | 80.0 | 83.1 | | ug/L | | 104 | 85 - 115 | 0 | 20 |
| Nickel | 80.0 | 80.3 | | ug/L | | 100 | 85 - 115 | 0 | 20 |
| Selenium | 80.0 | 82.2 | | ug/L | | 103 | 85 - 115 | 1 | 20 |
| Silver | 80.0 | 79.6 | | ug/L | | 100 | 85 - 115 | 2 | 20 |
| Thallium | 80.0 | 82.2 | | ug/L | | 103 | 85 - 115 | 0 | 20 |
| Zinc | 80.0 | 79.2 | | ug/L | | 99 | 85 - 115 | 1 | 20 |

Lab Sample ID: 570-165909-1 MS
Matrix: Water
Analysis Batch: 396472

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total Recoverable
Prep Batch: 396257

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Antimony | 4.4 | | 80.0 | 85.9 | | ug/L | | 102 | 80 - 120 |
| Cadmium | 0.17 | J,DX | 80.0 | 79.4 | | ug/L | | 99 | 80 - 120 |
| Copper | 1.3 | J,DX | 80.0 | 83.5 | | ug/L | | 103 | 80 - 120 |
| Lead | 0.60 | J,DX | 80.0 | 83.6 | | ug/L | | 104 | 80 - 120 |
| Nickel | 1.8 | J,DX | 80.0 | 82.8 | | ug/L | | 101 | 80 - 120 |
| Selenium | ND | | 80.0 | 81.8 | | ug/L | | 102 | 80 - 120 |
| Silver | ND | | 80.0 | 78.9 | | ug/L | | 99 | 80 - 120 |
| Thallium | 0.18 | J,DX | 80.0 | 82.2 | | ug/L | | 103 | 80 - 120 |
| Zinc | 5.6 | J,DX | 80.0 | 82.4 | | ug/L | | 96 | 80 - 120 |

Lab Sample ID: 570-165909-1 MSD
Matrix: Water
Analysis Batch: 396472

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total Recoverable
Prep Batch: 396257

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Antimony | 4.4 | | 80.0 | 87.1 | | ug/L | | 103 | 80 - 120 | 1 | 20 |
| Cadmium | 0.17 | J,DX | 80.0 | 80.2 | | ug/L | | 100 | 80 - 120 | 1 | 20 |
| Copper | 1.3 | J,DX | 80.0 | 85.0 | | ug/L | | 105 | 80 - 120 | 2 | 20 |
| Lead | 0.60 | J,DX | 80.0 | 84.3 | | ug/L | | 105 | 80 - 120 | 1 | 20 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 570-165909-1 MSD
Matrix: Water
Analysis Batch: 396472

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total Recoverable
Prep Batch: 396257

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Nickel | 1.8 | J,DX | 80.0 | 84.4 | | ug/L | | 103 | 80 - 120 | 2 | 20 |
| Selenium | ND | | 80.0 | 81.8 | | ug/L | | 102 | 80 - 120 | 0 | 20 |
| Silver | ND | | 80.0 | 79.5 | | ug/L | | 99 | 80 - 120 | 1 | 20 |
| Thallium | 0.18 | J,DX | 80.0 | 82.3 | | ug/L | | 103 | 80 - 120 | 0 | 20 |
| Zinc | 5.6 | J,DX | 80.0 | 83.3 | | ug/L | | 97 | 80 - 120 | 1 | 20 |

Lab Sample ID: MB 570-397958/1-A
Matrix: Water
Analysis Batch: 398569

Client Sample ID: Method Blank
Prep Type: Dissolved

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Antimony | ND | | 2.0 | 0.36 | ug/L | | | 01/04/24 16:42 | 1 |
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | | 01/04/24 16:42 | 1 |
| Copper | ND | | 2.0 | 0.32 | ug/L | | | 01/04/24 16:42 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | | 01/04/24 16:42 | 1 |
| Nickel | ND | | 2.0 | 0.17 | ug/L | | | 01/04/24 16:42 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | | 01/04/24 16:42 | 1 |
| Silver | ND | | 1.0 | 0.23 | ug/L | | | 01/04/24 16:42 | 1 |
| Thallium | ND | | 1.0 | 0.11 | ug/L | | | 01/04/24 16:42 | 1 |
| Zinc | ND | | 20 | 2.8 | ug/L | | | 01/04/24 16:42 | 1 |

Lab Sample ID: LCS 570-397958/2-A
Matrix: Water
Analysis Batch: 398569

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Antimony | 80.0 | 70.9 | | ug/L | | 89 | 85 - 115 |
| Cadmium | 80.0 | 76.7 | | ug/L | | 96 | 85 - 115 |
| Copper | 80.0 | 78.1 | | ug/L | | 98 | 85 - 115 |
| Lead | 80.0 | 77.9 | | ug/L | | 97 | 85 - 115 |
| Nickel | 80.0 | 77.8 | | ug/L | | 97 | 85 - 115 |
| Selenium | 80.0 | 76.2 | | ug/L | | 95 | 85 - 115 |
| Silver | 80.0 | 78.0 | | ug/L | | 98 | 85 - 115 |
| Thallium | 80.0 | 78.0 | | ug/L | | 97 | 85 - 115 |
| Zinc | 80.0 | 75.2 | | ug/L | | 94 | 85 - 115 |

Lab Sample ID: LCSD 570-397958/3-A
Matrix: Water
Analysis Batch: 398569

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Antimony | 80.0 | 76.6 | | ug/L | | 96 | 85 - 115 | 8 | 20 |
| Cadmium | 80.0 | 81.1 | | ug/L | | 101 | 85 - 115 | 6 | 20 |
| Copper | 80.0 | 82.3 | | ug/L | | 103 | 85 - 115 | 5 | 20 |
| Lead | 80.0 | 81.4 | | ug/L | | 102 | 85 - 115 | 4 | 20 |
| Nickel | 80.0 | 81.9 | | ug/L | | 102 | 85 - 115 | 5 | 20 |
| Selenium | 80.0 | 79.8 | | ug/L | | 100 | 85 - 115 | 5 | 20 |
| Silver | 80.0 | 82.3 | | ug/L | | 103 | 85 - 115 | 5 | 20 |
| Thallium | 80.0 | 81.1 | | ug/L | | 101 | 85 - 115 | 4 | 20 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 570-397958/3-A
Matrix: Water
Analysis Batch: 398569

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Zinc | 80.0 | 77.7 | | ug/L | | 97 | 85 - 115 | 3 | 20 |

Lab Sample ID: 570-165909-2 MS
Matrix: Water
Analysis Batch: 398569

Client Sample ID: Outfall008_20231222_Comp_F
Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Antimony | 1.2 | J,DX BU | 80.0 | 69.9 | BU | ug/L | | 86 | 80 - 120 |
| Cadmium | ND | BU | 80.0 | 74.4 | BU | ug/L | | 93 | 80 - 120 |
| Copper | 1.8 | J,DX BU | 80.0 | 76.6 | BU | ug/L | | 94 | 80 - 120 |
| Lead | 0.15 | J,DX BU | 80.0 | 73.2 | BU | ug/L | | 91 | 80 - 120 |
| Nickel | 1.2 | J,DX BU | 80.0 | 75.7 | BU | ug/L | | 93 | 80 - 120 |
| Selenium | ND | BU | 80.0 | 71.7 | BU | ug/L | | 90 | 80 - 120 |
| Silver | ND | BU | 80.0 | 75.3 | BU | ug/L | | 94 | 80 - 120 |
| Thallium | ND | BU | 80.0 | 73.9 | BU | ug/L | | 92 | 80 - 120 |
| Zinc | 4.7 | J,DX BU | 80.0 | 75.3 | BU | ug/L | | 88 | 80 - 120 |

Lab Sample ID: 570-165909-2 MSD
Matrix: Water
Analysis Batch: 398569

Client Sample ID: Outfall008_20231222_Comp_F
Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Antimony | 1.2 | J,DX BU | 80.0 | 68.3 | BU | ug/L | | 84 | 80 - 120 | 2 | 20 |
| Cadmium | ND | BU | 80.0 | 73.5 | BU | ug/L | | 92 | 80 - 120 | 1 | 20 |
| Copper | 1.8 | J,DX BU | 80.0 | 75.3 | BU | ug/L | | 92 | 80 - 120 | 2 | 20 |
| Lead | 0.15 | J,DX BU | 80.0 | 72.5 | BU | ug/L | | 90 | 80 - 120 | 1 | 20 |
| Nickel | 1.2 | J,DX BU | 80.0 | 74.4 | BU | ug/L | | 92 | 80 - 120 | 2 | 20 |
| Selenium | ND | BU | 80.0 | 72.1 | BU | ug/L | | 90 | 80 - 120 | 1 | 20 |
| Silver | ND | BU | 80.0 | 76.0 | BU | ug/L | | 95 | 80 - 120 | 1 | 20 |
| Thallium | ND | BU | 80.0 | 72.7 | BU | ug/L | | 91 | 80 - 120 | 2 | 20 |
| Zinc | 4.7 | J,DX BU | 80.0 | 74.0 | BU | ug/L | | 87 | 80 - 120 | 2 | 20 |

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 570-399598/1-A
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 399598

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/09/24 13:04 | 01/10/24 14:17 | 1 |

Lab Sample ID: LCS 570-399598/2-A
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 399598

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Mercury | 8.00 | 7.35 | | ug/L | | 92 | 85 - 115 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 570-399598/3-A
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 399598

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Mercury | 8.00 | 7.53 | | ug/L | | 94 | 85 - 115 | 2 | 10 |

Lab Sample ID: 570-165909-1 MS
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total/NA
Prep Batch: 399598

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Mercury | ND | | 8.00 | 7.45 | | ug/L | | 93 | 85 - 115 |

Lab Sample ID: 570-165909-1 MSD
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total/NA
Prep Batch: 399598

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Mercury | ND | | 8.00 | 7.37 | | ug/L | | 92 | 85 - 115 | 1 | 10 |

Lab Sample ID: MB 570-399609/1-B
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 399656

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/09/24 15:13 | 01/10/24 13:22 | 1 |

Lab Sample ID: LCS 570-399609/2-B
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 399656

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Mercury | 8.00 | 8.16 | | ug/L | | 102 | 85 - 115 |

Lab Sample ID: LCSD 570-399609/3-B
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 399656

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Mercury | 8.00 | 8.25 | | ug/L | | 103 | 85 - 115 | 1 | 10 |

Lab Sample ID: 570-165909-2 MS
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Outfall008_20231222_Comp_F
Prep Type: Dissolved
Prep Batch: 399656

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Mercury | ND | BU | 8.00 | 7.93 | BU | ug/L | | 99 | 85 - 115 |

Lab Sample ID: 570-165909-2 MSD
Matrix: Water
Analysis Batch: 399960

Client Sample ID: Outfall008_20231222_Comp_F
Prep Type: Dissolved
Prep Batch: 399656

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Mercury | ND | BU | 8.00 | 7.97 | BU | ug/L | | 100 | 85 - 115 | 0 | 10 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 570-398793/5-A
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-------|-------|------|---|----------------|----------------|---------|
| Ammonia | ND | | 0.075 | 0.029 | mg/L | | 01/05/24 09:38 | 01/05/24 12:01 | 1 |

Lab Sample ID: LCS 570-398793/6-A
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Ammonia | 0.500 | 0.476 | | mg/L | | 95 | 90 - 110 |

Lab Sample ID: LCSD 570-398793/7-A
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Ammonia | 0.500 | 0.467 | | mg/L | | 93 | 90 - 110 | 2 | 20 |

Lab Sample ID: 570-165909-1 MS
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Ammonia | 0.043 | J,DX | 0.500 | 0.509 | | mg/L | | 93 | 90 - 110 |

Lab Sample ID: 570-165909-1 MSD
 Matrix: Water
 Analysis Batch: 398797

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 398793

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Ammonia | 0.043 | J,DX | 0.500 | 0.560 | | mg/L | | 104 | 90 - 110 | 10 | 25 |

Method: Kelada 01 - Cyanide, Total, Acid Dissociable and Thiocyanate

Lab Sample ID: MB 570-398571/11
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Cyanide, Total | ND | | 5.0 | 2.5 | ug/L | | | 01/04/24 14:13 | 1 |

Lab Sample ID: LCS 570-398571/12
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|------------|---------------|------|---|------|-------------|
| Cyanide, Total | 250 | 245 | | ug/L | | 98 | 90 - 110 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: Kelada 01 - Cyanide, Total, Acid Dissociable and Thiocyanate (Continued)

Lab Sample ID: LCSD 570-398571/13
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Cyanide, Total | 250 | 246 | | ug/L | | 98 | 90 - 110 | 0 | 20 |

Lab Sample ID: 570-165909-1 MS
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Cyanide, Total | ND | | 250 | 172 | LN | ug/L | | 69 | 70 - 130 |

Lab Sample ID: 570-165909-1 MSD
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Cyanide, Total | ND | | 250 | 113 | LN BA | ug/L | | 45 | 70 - 130 | 41 | 30 |

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-396762/1
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|----|-----|------|---|----------|----------------|---------|
| Total Dissolved Solids | ND | | 10 | 8.7 | mg/L | | | 12/28/23 12:15 | 1 |

Lab Sample ID: LCS 570-396762/2
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Dissolved Solids | 1000 | 1040 | | mg/L | | 104 | 84 - 108 |

Lab Sample ID: LCSD 570-396762/3
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Total Dissolved Solids | 1000 | 1060 | | mg/L | | 106 | 84 - 108 | 1 | 10 |

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-397000/1
 Matrix: Water
 Analysis Batch: 397000

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Suspended Solids | ND | | 1.0 | 0.80 | mg/L | | | 12/28/23 20:44 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 570-397000/2
Matrix: Water
Analysis Batch: 397000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|----------------|---------------|------------------|------|---|------|----------------|
| Total Suspended Solids | 100 | 106 | | mg/L | | 106 | 77 - 116 |

Lab Sample ID: LCSD 570-397000/3
Matrix: Water
Analysis Batch: 397000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|----------------|----------------|-------------------|------|---|------|----------------|-----|--------------|
| Total Suspended Solids | 100 | 103 | | mg/L | | 103 | 77 - 116 | 3 | 10 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

HPLC/IC

Analysis Batch: 395973

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | 300.0 | |
| MB 570-395973/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-395973/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 570-395973/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |

Analysis Batch: 395974

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | 300.0 | |
| MB 570-395974/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-395974/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 570-395974/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |

Analysis Batch: 396303

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|--------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | 314.0 | |
| MB 570-396303/31 | Method Blank | Total/NA | Water | 314.0 | |
| LCS 570-396303/32 | Lab Control Sample | Total/NA | Water | 314.0 | |
| LCSD 570-396303/33 | Lab Control Sample Dup | Total/NA | Water | 314.0 | |

Analysis Batch: 396590

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| MB 570-396590/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-396590/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 570-396590/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | 300.0 | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | 300.0 | |

Analysis Batch: 396591

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| MB 570-396591/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-396591/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 570-396591/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | 300.0 | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | 300.0 | |

Analysis Batch: 399041

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|-------------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | NO2NO3 Calc | |

Analysis Batch: 399050

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------------|-----------|--------|-------------|------------|
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | NO2NO3 Calc | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | NO2NO3 Calc | |

Metals

Prep Batch: 396257

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-------------------|--------|--------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total Recoverable | Water | 200.8 | |
| MB 570-396257/1-A | Method Blank | Total Recoverable | Water | 200.8 | |
| LCS 570-396257/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 | |

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QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Metals (Continued)

Prep Batch: 396257 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-------------------|--------|--------|------------|
| LCSD 570-396257/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total Recoverable | Water | 200.8 | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total Recoverable | Water | 200.8 | |

Analysis Batch: 396472

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-------------------|--------|--------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total Recoverable | Water | 200.8 | 396257 |
| MB 570-396257/1-A | Method Blank | Total Recoverable | Water | 200.8 | 396257 |
| LCS 570-396257/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 | 396257 |
| LCSD 570-396257/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 | 396257 |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total Recoverable | Water | 200.8 | 396257 |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total Recoverable | Water | 200.8 | 396257 |

Filtration Batch: 397958

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|------------|------------|
| 570-165909-2 | Outfall008_20231222_Comp_F | Dissolved | Water | Filtration | |
| MB 570-397958/1-A | Method Blank | Dissolved | Water | Filtration | |
| LCS 570-397958/2-A | Lab Control Sample | Dissolved | Water | Filtration | |
| LCSD 570-397958/3-A | Lab Control Sample Dup | Dissolved | Water | Filtration | |
| 570-165909-2 MS | Outfall008_20231222_Comp_F | Dissolved | Water | Filtration | |
| 570-165909-2 MSD | Outfall008_20231222_Comp_F | Dissolved | Water | Filtration | |

Analysis Batch: 398569

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165909-2 | Outfall008_20231222_Comp_F | Dissolved | Water | 200.8 | 397958 |
| MB 570-397958/1-A | Method Blank | Dissolved | Water | 200.8 | 397958 |
| LCS 570-397958/2-A | Lab Control Sample | Dissolved | Water | 200.8 | 397958 |
| LCSD 570-397958/3-A | Lab Control Sample Dup | Dissolved | Water | 200.8 | 397958 |
| 570-165909-2 MS | Outfall008_20231222_Comp_F | Dissolved | Water | 200.8 | 397958 |
| 570-165909-2 MSD | Outfall008_20231222_Comp_F | Dissolved | Water | 200.8 | 397958 |

Prep Batch: 399598

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | 245.1 | |
| MB 570-399598/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 570-399598/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 570-399598/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | 245.1 | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | 245.1 | |

Filtration Batch: 399609

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|------------|------------|
| 570-165909-2 | Outfall008_20231222_Comp_F | Dissolved | Water | Filtration | |
| MB 570-399609/1-B | Method Blank | Dissolved | Water | Filtration | |
| LCS 570-399609/2-B | Lab Control Sample | Dissolved | Water | Filtration | |
| LCSD 570-399609/3-B | Lab Control Sample Dup | Dissolved | Water | Filtration | |
| 570-165909-2 MS | Outfall008_20231222_Comp_F | Dissolved | Water | Filtration | |
| 570-165909-2 MSD | Outfall008_20231222_Comp_F | Dissolved | Water | Filtration | |

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Metals

Prep Batch: 399656

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165909-2 | Outfall008_20231222_Comp_F | Dissolved | Water | 245.1 | 399609 |
| MB 570-399609/1-B | Method Blank | Dissolved | Water | 245.1 | 399609 |
| LCS 570-399609/2-B | Lab Control Sample | Dissolved | Water | 245.1 | 399609 |
| LCSD 570-399609/3-B | Lab Control Sample Dup | Dissolved | Water | 245.1 | 399609 |
| 570-165909-2 MS | Outfall008_20231222_Comp_F | Dissolved | Water | 245.1 | 399609 |
| 570-165909-2 MSD | Outfall008_20231222_Comp_F | Dissolved | Water | 245.1 | 399609 |

Analysis Batch: 399960

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | 245.1 | 399598 |
| 570-165909-2 | Outfall008_20231222_Comp_F | Dissolved | Water | 245.1 | 399656 |
| MB 570-399598/1-A | Method Blank | Total/NA | Water | 245.1 | 399598 |
| MB 570-399609/1-B | Method Blank | Dissolved | Water | 245.1 | 399656 |
| LCS 570-399598/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 399598 |
| LCS 570-399609/2-B | Lab Control Sample | Dissolved | Water | 245.1 | 399656 |
| LCSD 570-399598/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 399598 |
| LCSD 570-399609/3-B | Lab Control Sample Dup | Dissolved | Water | 245.1 | 399656 |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | 245.1 | 399598 |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | 245.1 | 399598 |
| 570-165909-2 MS | Outfall008_20231222_Comp_F | Dissolved | Water | 245.1 | 399656 |
| 570-165909-2 MSD | Outfall008_20231222_Comp_F | Dissolved | Water | 245.1 | 399656 |

General Chemistry

Analysis Batch: 396762

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|----------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | SM 2540C | |
| MB 570-396762/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 570-396762/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 570-396762/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |

Analysis Batch: 397000

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|----------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | SM 2540D | |
| MB 570-397000/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 570-397000/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 570-397000/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

Analysis Batch: 398571

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | Kelada 01 | |
| MB 570-398571/11 | Method Blank | Total/NA | Water | Kelada 01 | |
| LCS 570-398571/12 | Lab Control Sample | Total/NA | Water | Kelada 01 | |
| LCSD 570-398571/13 | Lab Control Sample Dup | Total/NA | Water | Kelada 01 | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | Kelada 01 | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | Kelada 01 | |

Prep Batch: 398793

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|-----------------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | Distill/Ammonia | |
| MB 570-398793/5-A | Method Blank | Total/NA | Water | Distill/Ammonia | |

Eurofins Calscience

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

General Chemistry (Continued)

Prep Batch: 398793 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|-----------------|------------|
| LCS 570-398793/6-A | Lab Control Sample | Total/NA | Water | Distill/Ammonia | |
| LCSD 570-398793/7-A | Lab Control Sample Dup | Total/NA | Water | Distill/Ammonia | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | Distill/Ammonia | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | Distill/Ammonia | |

Analysis Batch: 398797

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | 350.1 | 398793 |
| MB 570-398793/5-A | Method Blank | Total/NA | Water | 350.1 | 398793 |
| LCS 570-398793/6-A | Lab Control Sample | Total/NA | Water | 350.1 | 398793 |
| LCSD 570-398793/7-A | Lab Control Sample Dup | Total/NA | Water | 350.1 | 398793 |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | 350.1 | 398793 |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | 350.1 | 398793 |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Client Sample ID: Outfall008_20231222_Comp

Lab Sample ID: 570-165909-1

Date Collected: 12/22/23 09:00

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------------------|-----------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Analysis | 300.0 | | 1 | 4 mL | 4 mL | 395973 | 12/23/23 08:43 | UIP1 | EET CAL 4 |
| | Instrument ID: IC9 | | | | | | | | | |
| Total/NA | Analysis | 300.0 | | 1 | 4 mL | 4 mL | 395974 | 12/23/23 08:43 | UIP1 | EET CAL 4 |
| | Instrument ID: IC9 | | | | | | | | | |
| Total/NA | Analysis | 314.0 | | 1 | 4 mL | 4 mL | 396303 | 12/28/23 07:37 | M5Z3 | EET CAL 4 |
| | Instrument ID: IC8 | | | | | | | | | |
| Total/NA | Analysis | NO2NO3 Calc | | 1 | | | 399041 | 12/23/23 08:43 | URMH | EET CAL 4 |
| | Instrument ID: IC9 | | | | | | | | | |
| Total Recoverable | Prep | 200.8 | | | 50 mL | 50 mL | 396257 | 12/27/23 09:29 | RL6Q | EET CAL 4 |
| Total Recoverable | Analysis | 200.8 | | 1 | | | 396472 | 12/27/23 14:12 | C0YH | EET CAL 4 |
| | Instrument ID: ICPMS09 | | | | | | | | | |
| Total/NA | Prep | 245.1 | | | 25 mL | 50 mL | 399598 | 01/09/24 13:04 | EV3M | EET CAL 4 |
| Total/NA | Analysis | 245.1 | | 1 | | | 399960 | 01/10/24 14:23 | ECX6 | EET CAL 4 |
| | Instrument ID: HG9 | | | | | | | | | |
| Total/NA | Prep | Distill/Ammonia | | | 5 mL | 5 mL | 398793 | 01/05/24 09:38 | UXCH | EET CAL 4 |
| Total/NA | Analysis | 350.1 | | 1 | 5 mL | 5 mL | 398797 | 01/05/24 12:08 | UXCH | EET CAL 4 |
| | Instrument ID: ACA2 | | | | | | | | | |
| Total/NA | Analysis | Kelada 01 | | 1 | 8 mL | 8 mL | 398571 | 01/04/24 14:37 | GG0B | EET CAL 4 |
| | Instrument ID: LCHAT01 | | | | | | | | | |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 1000 mL | 396762 | 12/28/23 12:15 | GG0B | EET CAL 4 |
| | Instrument ID: BAL100 | | | | | | | | | |
| Total/NA | Analysis | SM 2540D | | 1 | 1000 mL | 1000 mL | 397000 | 12/28/23 20:44 | JB | EET CAL 4 |
| | Instrument ID: NOEQUIP | | | | | | | | | |

Client Sample ID: Outfall008_20231222_Comp_F

Lab Sample ID: 570-165909-2

Date Collected: 12/22/23 09:00

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Dissolved | Filtration | Filtration | | | 50 mL | 50 mL | 397958 | 01/03/24 09:36 | JP8N | EET CAL 4 |
| Dissolved | Analysis | 200.8 | | 1 | | | 398569 | 01/04/24 16:49 | P1R | EET CAL 4 |
| | Instrument ID: ICPMS10 | | | | | | | | | |
| Dissolved | Filtration | Filtration | | | 25 mL | 25 mL | 399609 | 01/09/24 13:29 | JP8N | EET CAL 4 |
| Dissolved | Prep | 245.1 | | | 25 mL | 50 mL | 399656 | 01/09/24 15:13 | EV3M | EET CAL 4 |
| Dissolved | Analysis | 245.1 | | 1 | | | 399960 | 01/10/24 13:32 | ECX6 | EET CAL 4 |
| | Instrument ID: HG9 | | | | | | | | | |

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|------------|---|-----------------------|-----------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

| Method | Method Description | Protocol | Laboratory |
|-----------------|--|----------|------------|
| 300.0 | Anions, Ion Chromatography | EPA | EET CAL 4 |
| 314.0 | Perchlorate (IC) | EPA | EET CAL 4 |
| NO2NO3 Calc | Nitrogen, Nitrate-Nitrite | EPA | EET CAL 4 |
| 200.8 | Metals (ICP/MS) | EPA | EET CAL 4 |
| 245.1 | Mercury (CVAA) | EPA | EET CAL 4 |
| 350.1 | Nitrogen, Ammonia | EPA | EET CAL 4 |
| Kelada 01 | Cyanide, Total, Acid Dissociable and Thiocyanate | EPA | EET CAL 4 |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET CAL 4 |
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET CAL 4 |
| 200.8 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 245.1 | Preparation, Mercury | EPA | EET CAL 4 |
| Distill/Ammonia | Distillation, Ammonia | None | EET CAL 4 |
| Filtration | Sample Filtration | None | EET CAL 4 |

Protocol References:

- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

- EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

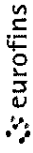
Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|----------------------------|--------|----------------|----------------|
| 570-165909-1 | Outfall008_20231222_Comp | Water | 12/22/23 09:00 | 12/22/23 17:30 |
| 570-165909-2 | Outfall008_20231222_Comp_F | Water | 12/22/23 09:00 | 12/22/23 17:30 |

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Chain of Custody Record



| Client Information (Sub Contract Lab) | | Lab PM: Patel, Virendra | | Carrier Tracking No(s): 570-334294.1 | | | | | | |
|--|-------------|--|------------------------------|--|-----------------------------------|----------------------------|---------------|-------------------------------|-------------------------------|--------------------|
| Client Contact: Shipping/Receiving | | E-Mail: Virendra.Patel@et.eurofinsus.com | | Page: Page 1 of 1 | | | | | | |
| Company: Eurofins Environment Testing Northern Ca | | Accreditations Required (See note): State California, State Program California | | Job #: 570-165909-2 | | | | | | |
| Address: 880 Riverside Parkway | | Due Date Requested: 1/16/2024 | | Preservation Codes: | | | | | | |
| City: West Sacramento | | TAT Requested (days): | | M Hexane N None O AsNaO2 P Na2O4S Q Na2SO3 R Na2SO4 S H2SO4 T TSP Dodecahydrate U Acetone V MCAA W pH 4-5 Y Trizma Z other (specify) | | | | | | |
| State, Zip: CA, 95605 | | FO #: | | A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other | | | | | | |
| Phone: 916-373-5600(Tel) 916-372-1059(Fax) | | WG #: | | Total Number of containers | | | | | | |
| Email: | | Project #: | | Special Instructions/Note: | | | | | | |
| Project Name: Boeing NPDES SSFL Outfall 008 Comp | | 57013187 | | 2 See QAS: Boeig_wiu to zero, ug/L, Use Boeig glassware. | | | | | | |
| Site: | | SSOW#: | | 2 See QAS: Boeig_wiu to zero, ug/L, Use Boeig glassware. | | | | | | |
| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=oil, G=gas, A=air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Totals (Hold) | Totals (MOD) Standard List w/ | Totals (MOD) Standard List w/ | Analysis Requested |
| Outfall008_20231222_Comp (570-165909-1) | 12/22/23 | 09:00 Pacific | Water | Water | X | X | | | | |
| Outfall008_20231222_Comp_Extra (570-165909-3) | 12/22/23 | 09:00 Pacific | Water | Water | | | | | | |
| <p>Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/ress/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.</p> | | | | | | | | | | |
| <p>Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV Other (specify) Primary Deliverable Rank: 2 Special Instructions/QC Requirements: <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months</p> | | | | | | | | | | |
| Empty Kit/Reinquired by: | | Date: | | Time: | | Method of Shipment: | | | | |
| Reinquired by: <i>[Signature]</i> | | Date/Time: 12/26/23 1400 | | Company: Company | | Received by: | | Date/Time: Company | | |
| Reinquired by: | | Date/Time: | | Company: | | Received by: | | Date/Time: Company | | |
| Reinquired by: | | Date/Time: | | Company: | | Received by: | | Date/Time: Company | | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | Custody Seal No. | | Cooler Temperature(s) °C and Other Remarks: | | | | | | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165909-1

Login Number: 165909

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004
Generated 2/7/2024 11:54:03 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 008 - Comp

JOB NUMBER

570-165909-2

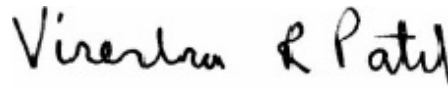
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Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Qualifiers

Dioxin

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| MB | Analyte present in the method blank |
| q | The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| ♠ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Job ID: 570-165909-2

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Job Narrative 570-165909-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.5°C, 1.5°C and 2.5°C

Dioxin

Method 1613B: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD and 13C-1,2,3,7,8,9-HxCDD associated with the following samples run on instrument 10D5 exceeded this criteria: (CCV 320-737022/1), (LCS 320-734694/2-A), (LCSD 320-734694/3-A) and (MB 320-734694/1-A). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

Method 1613B: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD and 13C-1,2,3,7,8,9-HxCDD associated with the following samples run on instrument 10D5 exceeded this criteria: Outfall008_20231222_Comp (570-165909-1) and (CCV 320-737584/2). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Client Sample ID: Outfall008_20231222_Comp

Lab Sample ID: 570-165909-1

| Analyte | Result | Qualifier | RL | EDL | Unit | Dil Fac | D | Method | Prep Type |
|---------------------|-----------|-----------|----------|-----------|------|---------|---|--------|-----------|
| 1,2,3,7,8-PeCDF | 0.0000011 | J,DX | 0.000053 | 0.0000002 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 5 | | | | | |
| 1,2,3,4,7,8-HxCDD | 0.0000014 | J,DX | 0.000053 | 0.0000002 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 6 | | | | | |
| 1,2,3,4,7,8-HxCDF | 0.0000028 | J,DX | 0.000053 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 4 | | | | | |
| 1,2,3,6,7,8-HxCDF | 0.0000087 | J,DX q | 0.000053 | 0.0000002 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 9 | | | | | |
| 1,2,3,7,8,9-HxCDF | 0.0000072 | J,DX q | 0.000053 | 0.0000002 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 5 | | | | | |
| 1,2,3,4,6,7,8-HpCDD | 0.0000044 | J,DX MB | 0.000053 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 0 | | | | | |
| 1,2,3,4,6,7,8-HpCDF | 0.0000035 | J,DX MB | 0.000053 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 3 | | | | | |
| 1,2,3,4,7,8,9-HpCDF | 0.0000014 | J,DX | 0.000053 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 3 | | | | | |
| OCDD | 0.000027 | J,DX MB | 0.00011 | 0.0000007 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 8 | | | | | |
| OCDF | 0.0000078 | J,DX MB | 0.00011 | 0.0000005 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 5 | | | | | |
| Total PeCDF | 0.0000011 | J,DX | 0.000053 | 0.0000002 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 7 | | | | | |
| Total HxCDD | 0.0000014 | J,DX | 0.000053 | 0.0000002 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 6 | | | | | |
| Total HxCDF | 0.0000044 | J,DX q | 0.000053 | 0.0000002 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 8 | | | | | |
| Total HpCDD | 0.0000077 | J,DX MB | 0.000053 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 0 | | | | | |
| Total HpCDF | 0.0000070 | J,DX MB | 0.000053 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| | | | | 3 | | | | | |

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS)

Client Sample ID: Outfall008_20231222_Comp

Lab Sample ID: 570-165909-1

Date Collected: 12/22/23 09:00

Matrix: Water

Date Received: 12/22/23 17:30

| Analyte | Result | Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------|------------------|------------------|---------------|-----------|------|---|-----------------|-----------------|----------------|
| 2,3,7,8-TCDD | ND | | 0.000011 | 0.0000004 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 2,3,7,8-TCDF | ND | | 0.000011 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,7,8-PeCDD | ND | | 0.000053 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,7,8-PeCDF | 0.0000011 | J,DX | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 2,3,4,7,8-PeCDF | ND | | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,4,7,8-HxCDD | 0.0000014 | J,DX | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,6,7,8-HxCDD | ND | | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,7,8,9-HxCDD | ND | | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,4,7,8-HxCDF | 0.0000028 | J,DX | 0.000053 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,6,7,8-HxCDF | 0.0000087 | J,DX q | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,7,8,9-HxCDF | 0.0000072 | J,DX q | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 2,3,4,6,7,8-HxCDF | ND | | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,4,6,7,8-HpCDD | 0.0000044 | J,DX MB | 0.000053 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,4,6,7,8-HpCDF | 0.0000035 | J,DX MB | 0.000053 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 1,2,3,4,7,8,9-HpCDF | 0.0000014 | J,DX | 0.000053 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| OCDD | 0.000027 | J,DX MB | 0.00011 | 0.0000007 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| OCDF | 0.0000078 | J,DX MB | 0.00011 | 0.0000005 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| Total TCDD | ND | | 0.000011 | 0.0000004 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| Total TCDF | ND | | 0.000011 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| Total PeCDD | ND | | 0.000053 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| Total PeCDF | 0.0000011 | J,DX | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| Total HxCDD | 0.0000014 | J,DX | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| Total HxCDF | 0.0000044 | J,DX q | 0.000053 | 0.0000002 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| Total HpCDD | 0.0000077 | J,DX MB | 0.000053 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| Total HpCDF | 0.0000070 | J,DX MB | 0.000053 | 0.0000003 | ug/L | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| Isotope Dilution | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 13C-2,3,7,8-TCDD | 58 | | 25 - 164 | | | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-2,3,7,8-TCDF | 54 | | 24 - 169 | | | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-1,2,3,7,8-PeCDD | 85 | | 25 - 181 | | | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-1,2,3,7,8-PeCDF | 59 | | 24 - 185 | | | | 01/19/24 08:46 | 02/01/24 12:33 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: Outfall008_20231222_Comp
Date Collected: 12/22/23 09:00
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1
Matrix: Water

| <u>Isotope Dilution</u> | <u>%Recovery</u> | <u>Qualifier</u> | <u>Limits</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Dil Fac</u> |
|-------------------------|------------------|------------------|---------------|-----------------|-----------------|----------------|
| 13C-2,3,4,7,8-PeCDF | 57 | | 21 - 178 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-1,2,3,4,7,8-HxCDD | 61 | | 32 - 141 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-1,2,3,6,7,8-HxCDD | 63 | | 28 - 130 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-1,2,3,4,7,8-HxCDF | 53 | | 26 - 152 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-1,2,3,6,7,8-HxCDF | 55 | | 26 - 123 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-1,2,3,7,8,9-HxCDF | 57 | | 29 - 147 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-2,3,4,6,7,8-HxCDF | 58 | | 28 - 136 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDD | 60 | | 23 - 140 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDF | 51 | | 28 - 143 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-1,2,3,4,7,8,9-HpCDF | 55 | | 26 - 138 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-OCDD | 56 | | 17 - 157 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| 13C-OCDF | 55 | | 17 - 157 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
| 37Cl4-2,3,7,8-TCDD | 85 | | 35 - 197 | 01/19/24 08:46 | 02/01/24 12:33 | 1 |

Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | 37TCDD (35-197) |
|-------------------|--------------------------|--------------------|
| 570-165909-1 | Outfall008_20231222_Comp | 85 |
| MB 320-734694/1-A | Method Blank | 87 |

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | 37TCDD (31-191) |
|---------------------|------------------------|--------------------|
| LCS 320-734694/2-A | Lab Control Sample | 89 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 88 |

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCDD (25-164) | TCDF (24-169) | PeCDD (25-181) | PeCDF (24-185) | PeCF (21-178) | HxCDD (32-141) | HxDD (28-130) | HxCDF (26-152) |
|-------------------|--------------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| 570-165909-1 | Outfall008_20231222_Comp | 58 | 54 | 85 | 59 | 57 | 61 | 63 | 53 |
| MB 320-734694/1-A | Method Blank | 60 | 59 | 72 | 57 | 56 | 59 | 62 | 60 |

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | HxDF (26-123) | HxCF (29-147) | 13CHxCF (28-136) | HpCDD (23-140) | HpCDF (28-143) | HpCDF2 (26-138) | OCDD (17-157) | OCDF (17-157) |
|-------------------|--------------------------|------------------|------------------|---------------------|-------------------|-------------------|--------------------|------------------|------------------|
| 570-165909-1 | Outfall008_20231222_Comp | 55 | 57 | 58 | 60 | 51 | 55 | 56 | 55 |
| MB 320-734694/1-A | Method Blank | 62 | 60 | 63 | 56 | 55 | 53 | 46 | 49 |

Surrogate Legend

- TCDD = 13C-2,3,7,8-TCDD
- TCDF = 13C-2,3,7,8-TCDF
- PeCDD = 13C-1,2,3,7,8-PeCDD
- PeCDF = 13C-1,2,3,7,8-PeCDF
- PeCF = 13C-2,3,4,7,8-PeCDF
- HxCDD = 13C-1,2,3,4,7,8-HxCDD
- HxDD = 13C-1,2,3,6,7,8-HxCDD
- HxCDF = 13C-1,2,3,4,7,8-HxCDF
- HxDF = 13C-1,2,3,6,7,8-HxCDF
- HxCF = 13C-1,2,3,7,8,9-HxCDF
- 13CHxCF = 13C-2,3,4,6,7,8-HxCDF
- HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
- HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
- HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
- OCDD = 13C-OCDD
- OCDF = 13C-OCDF

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCDD (20-175) | TCDF (22-152) | PeCDD (21-227) | PeCDF (21-192) | PeCF (13-328) | HxCDD (21-193) | HxDD (25-163) | HxCDF (19-202) |
|---------------------|------------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| LCS 320-734694/2-A | Lab Control Sample | 57 | 57 | 65 | 51 | 50 | 55 | 57 | 57 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 55 | 54 | 67 | 54 | 51 | 56 | 58 | 57 |

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | HxDF (21-159) | HxCF (17-205) | 13CHxCF (22-176) | HpCDD (26-166) | HpCDF (21-158) | HpCDF2 (20-186) | OCDD (13-199) | OCDF (13-199) |
|---------------------|------------------------|------------------|------------------|---------------------|-------------------|-------------------|--------------------|------------------|------------------|
| LCS 320-734694/2-A | Lab Control Sample | 58 | 57 | 56 | 54 | 51 | 51 | 42 | 44 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 58 | 59 | 57 | 56 | 54 | 54 | 44 | 47 |

Surrogate Legend

- TCDD = 13C-2,3,7,8-TCDD
- TCDF = 13C-2,3,7,8-TCDF
- PeCDD = 13C-1,2,3,7,8-PeCDD
- PeCDF = 13C-1,2,3,7,8-PeCDF
- PeCF = 13C-2,3,4,7,8-PeCDF
- HxCDD = 13C-1,2,3,4,7,8-HxCDD
- HxDD = 13C-1,2,3,6,7,8-HxCDD
- HxCDF = 13C-1,2,3,4,7,8-HxCDF
- HxDF = 13C-1,2,3,6,7,8-HxCDF

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Isotope Dilution Summary

Client: Haley & Aldrich, Inc.

Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

HxCF = 13C-1,2,3,7,8,9-HxCDF

13CHxCF = 13C-2,3,4,6,7,8-HxCDF

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD

HpCDF = 13C-1,2,3,4,6,7,8-HpCDF

HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF

OCDD = 13C-OCDD

OCDF = 13C-OCDF

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-734694/1-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 734694

| Isotope Dilution | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 13C-1,2,3,7,8-PeCDF | 57 | | 24 - 185 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-2,3,4,7,8-PeCDF | 56 | | 21 - 178 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8-HxCDD | 59 | | 32 - 141 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,6,7,8-HxCDD | 62 | | 28 - 130 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8-HxCDF | 60 | | 26 - 152 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,6,7,8-HxCDF | 62 | | 26 - 123 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,7,8,9-HxCDF | 60 | | 29 - 147 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-2,3,4,6,7,8-HxCDF | 63 | | 28 - 136 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDD | 56 | | 23 - 140 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDF | 55 | | 28 - 143 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8,9-HpCDF | 53 | | 26 - 138 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-OCDD | 46 | | 17 - 157 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-OCDF | 49 | | 17 - 157 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 37Cl4-2,3,7,8-TCDD | 87 | | 35 - 197 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |

Lab Sample ID: LCS 320-734694/2-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734694

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec | Limits |
|---------------------|-------------|------------|---------------|------|---|------|----------|--------|
| | | | | | | | | |
| 2,3,7,8-TCDF | 0.000200 | 0.000194 | | ug/L | | 97 | 75 - 158 | |
| 1,2,3,7,8-PeCDD | 0.00100 | 0.000727 | | ug/L | | 73 | 70 - 142 | |
| 1,2,3,7,8-PeCDF | 0.00100 | 0.000944 | | ug/L | | 94 | 80 - 134 | |
| 2,3,4,7,8-PeCDF | 0.00100 | 0.000976 | | ug/L | | 98 | 68 - 160 | |
| 1,2,3,4,7,8-HxCDD | 0.00100 | 0.000891 | | ug/L | | 89 | 70 - 164 | |
| 1,2,3,6,7,8-HxCDD | 0.00100 | 0.00103 | | ug/L | | 103 | 76 - 134 | |
| 1,2,3,7,8,9-HxCDD | 0.00100 | 0.000994 | | ug/L | | 99 | 64 - 162 | |
| 1,2,3,4,7,8-HxCDF | 0.00100 | 0.000917 | | ug/L | | 92 | 72 - 134 | |
| 1,2,3,6,7,8-HxCDF | 0.00100 | 0.000913 | | ug/L | | 91 | 84 - 130 | |
| 1,2,3,7,8,9-HxCDF | 0.00100 | 0.000916 | | ug/L | | 92 | 78 - 130 | |
| 2,3,4,6,7,8-HxCDF | 0.00100 | 0.000927 | | ug/L | | 93 | 70 - 156 | |
| 1,2,3,4,6,7,8-HpCDD | 0.00100 | 0.000883 | | ug/L | | 88 | 70 - 140 | |
| 1,2,3,4,6,7,8-HpCDF | 0.00100 | 0.000985 | | ug/L | | 98 | 82 - 122 | |
| 1,2,3,4,7,8,9-HpCDF | 0.00100 | 0.000917 | | ug/L | | 92 | 78 - 138 | |
| OCDD | 0.00200 | 0.00192 | | ug/L | | 96 | 78 - 144 | |
| OCDF | 0.00200 | 0.00185 | | ug/L | | 92 | 63 - 170 | |

| Isotope Dilution | LCS LCS | | Limits |
|-----------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-2,3,7,8-TCDD | 57 | | 20 - 175 |
| 13C-2,3,7,8-TCDF | 57 | | 22 - 152 |
| 13C-1,2,3,7,8-PeCDD | 65 | | 21 - 227 |
| 13C-1,2,3,7,8-PeCDF | 51 | | 21 - 192 |
| 13C-2,3,4,7,8-PeCDF | 50 | | 13 - 328 |
| 13C-1,2,3,4,7,8-HxCDD | 55 | | 21 - 193 |
| 13C-1,2,3,6,7,8-HxCDD | 57 | | 25 - 163 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-734694/2-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734694

| Isotope Dilution | LCS | | Limits |
|-------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-1,2,3,4,7,8-HxCDF | 57 | | 19 - 202 |
| 13C-1,2,3,6,7,8-HxCDF | 58 | | 21 - 159 |
| 13C-1,2,3,7,8,9-HxCDF | 57 | | 17 - 205 |
| 13C-2,3,4,6,7,8-HxCDF | 56 | | 22 - 176 |
| 13C-1,2,3,4,6,7,8-HpCDD | 54 | | 26 - 166 |
| 13C-1,2,3,4,6,7,8-HpCDF | 51 | | 21 - 158 |
| 13C-1,2,3,4,7,8,9-HpCDF | 51 | | 20 - 186 |
| 13C-OCDD | 42 | | 13 - 199 |
| 13C-OCDF | 44 | | 13 - 199 |

| Surrogate | LCS | | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 37Cl4-2,3,7,8-TCDD | 89 | | 31 - 191 |

Lab Sample ID: LCSD 320-734694/3-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 734694

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec | | RPD | RPD Limit |
|---------------------|-------------|-------------|----------------|------|---|------|----------|-----|-----|-----------|
| | | | | | | | Limits | RPD | | |
| 2,3,7,8-TCDD | 0.000200 | 0.000216 | | ug/L | | 108 | 67 - 158 | 8 | 50 | |
| 2,3,7,8-TCDF | 0.000200 | 0.000200 | | ug/L | | 100 | 75 - 158 | 3 | 50 | |
| 1,2,3,7,8-PeCDD | 0.00100 | 0.000761 | | ug/L | | 76 | 70 - 142 | 5 | 50 | |
| 1,2,3,7,8-PeCDF | 0.00100 | 0.000997 | | ug/L | | 100 | 80 - 134 | 5 | 50 | |
| 2,3,4,7,8-PeCDF | 0.00100 | 0.00102 | | ug/L | | 102 | 68 - 160 | 5 | 50 | |
| 1,2,3,4,7,8-HxCDD | 0.00100 | 0.000992 | | ug/L | | 99 | 70 - 164 | 11 | 50 | |
| 1,2,3,6,7,8-HxCDD | 0.00100 | 0.00108 | | ug/L | | 108 | 76 - 134 | 5 | 50 | |
| 1,2,3,7,8,9-HxCDD | 0.00100 | 0.00110 | | ug/L | | 110 | 64 - 162 | 10 | 50 | |
| 1,2,3,4,7,8-HxCDF | 0.00100 | 0.000995 | | ug/L | | 100 | 72 - 134 | 8 | 50 | |
| 1,2,3,6,7,8-HxCDF | 0.00100 | 0.000980 | | ug/L | | 98 | 84 - 130 | 7 | 50 | |
| 1,2,3,7,8,9-HxCDF | 0.00100 | 0.000972 | | ug/L | | 97 | 78 - 130 | 6 | 50 | |
| 2,3,4,6,7,8-HxCDF | 0.00100 | 0.000976 | | ug/L | | 98 | 70 - 156 | 5 | 50 | |
| 1,2,3,4,6,7,8-HpCDD | 0.00100 | 0.000949 | | ug/L | | 95 | 70 - 140 | 7 | 50 | |
| 1,2,3,4,6,7,8-HpCDF | 0.00100 | 0.00110 | | ug/L | | 110 | 82 - 122 | 11 | 50 | |
| 1,2,3,4,7,8,9-HpCDF | 0.00100 | 0.00102 | | ug/L | | 102 | 78 - 138 | 10 | 50 | |
| OCDD | 0.00200 | 0.00212 | | ug/L | | 106 | 78 - 144 | 10 | 50 | |
| OCDF | 0.00200 | 0.00199 | | ug/L | | 99 | 63 - 170 | 7 | 50 | |

| Isotope Dilution | LCSD | | Limits |
|-----------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-2,3,7,8-TCDD | 55 | | 20 - 175 |
| 13C-2,3,7,8-TCDF | 54 | | 22 - 152 |
| 13C-1,2,3,7,8-PeCDD | 67 | | 21 - 227 |
| 13C-1,2,3,7,8-PeCDF | 54 | | 21 - 192 |
| 13C-2,3,4,7,8-PeCDF | 51 | | 13 - 328 |
| 13C-1,2,3,4,7,8-HxCDD | 56 | | 21 - 193 |
| 13C-1,2,3,6,7,8-HxCDD | 58 | | 25 - 163 |
| 13C-1,2,3,4,7,8-HxCDF | 57 | | 19 - 202 |
| 13C-1,2,3,6,7,8-HxCDF | 58 | | 21 - 159 |
| 13C-1,2,3,7,8,9-HxCDF | 59 | | 17 - 205 |
| 13C-2,3,4,6,7,8-HxCDF | 57 | | 22 - 176 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-734694/3-A
 Matrix: Water
 Analysis Batch: 737022

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 734694

| <i>Isotope Dilution</i> | <i>LCSD LCSD</i> | | <i>Limits</i> |
|-------------------------|------------------|------------------|---------------|
| | <i>%Recovery</i> | <i>Qualifier</i> | |
| 13C-1,2,3,4,6,7,8-HpCDD | 56 | | 26 - 166 |
| 13C-1,2,3,4,6,7,8-HpCDF | 54 | | 21 - 158 |
| 13C-1,2,3,4,7,8,9-HpCDF | 54 | | 20 - 186 |
| 13C-OCDD | 44 | | 13 - 199 |
| 13C-OCDF | 47 | | 13 - 199 |

| <i>Surrogate</i> | <i>LCSD LCSD</i> | | <i>Limits</i> |
|--------------------|------------------|------------------|---------------|
| | <i>%Recovery</i> | <i>Qualifier</i> | |
| 37Cl4-2,3,7,8-TCDD | 88 | | 31 - 191 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Specialty Organics

Prep Batch: 734694

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | 1613B | |
| MB 320-734694/1-A | Method Blank | Total/NA | Water | 1613B | |
| LCS 320-734694/2-A | Lab Control Sample | Total/NA | Water | 1613B | |
| LCSD 320-734694/3-A | Lab Control Sample Dup | Total/NA | Water | 1613B | |

Analysis Batch: 737022

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| MB 320-734694/1-A | Method Blank | Total/NA | Water | 1613B | 734694 |
| LCS 320-734694/2-A | Lab Control Sample | Total/NA | Water | 1613B | 734694 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | Total/NA | Water | 1613B | 734694 |

Analysis Batch: 737584

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|--------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | 1613B | 734694 |

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Client Sample ID: Outfall008_20231222_Comp

Lab Sample ID: 570-165909-1

Date Collected: 12/22/23 09:00

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 1613B | | | 951.8 mL | 20.0 uL | 734694 | 01/19/24 08:46 | C1S | EET SAC |
| Total/NA | Analysis | 1613B | | 1 | 1 Sample | 1 Sample | 737584 | 02/01/24 12:33 | JBC | EET SAC |

Instrument ID: 10D5

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|--------------------|-----------------------|-----------------------|-----------------|
| Alaska (UST) | State | 17-020 | 02-20-24 |
| ANAB | Dept. of Defense ELAP | L2468 | 01-20-27 |
| ANAB | Dept. of Energy | L2468.01 | 01-20-27 |
| ANAB | ISO/IEC 17025 | L2468 | 01-20-27 |
| Arizona | State | AZ0708 | 08-11-24 |
| Arkansas DEQ | State | 88-0691 | 05-18-24 |
| California | State | 2897 | 01-31-26 |
| Colorado | State | CA00044 | 08-31-24 |
| Florida | NELAP | E87570 | 06-30-24 |
| Georgia | State | 4040 | 01-29-25 |
| Hawaii | State | <cert No.> | 01-29-24 * |
| Illinois | NELAP | 200060 | 03-17-24 |
| Kansas | NELAP | E-10375 | 10-31-24 |
| Louisiana | NELAP | 01944 | 06-30-24 |
| Louisiana (All) | NELAP | 01944 | 06-30-24 |
| Maine | State | CA00004 | 04-14-24 |
| Michigan | State | 9947 | 01-31-24 * |
| Nevada | State | CA00044 | 07-31-24 |
| New Hampshire | NELAP | 2997 | 04-18-24 |
| New Jersey | NELAP | CA005 | 06-30-24 |
| New York | NELAP | 11666 | 04-01-24 |
| Ohio | State | 41252 | 01-29-25 |
| Oregon | NELAP | 4040 | 01-29-25 |
| Texas | NELAP | T104704399-23-17 | 05-31-24 |
| US Fish & Wildlife | US Federal Programs | 58448 | 04-30-24 |
| USDA | US Federal Programs | P330-18-00239 | 02-28-26 |
| Utah | NELAP | CA000442023-16 | 02-29-24 |
| Virginia | NELAP | 460278 | 03-14-24 |
| Washington | State | C581 | 05-05-24 |
| West Virginia (DW) | State | 9930C | 01-31-25 |
| Wisconsin | State | 998204680 | 08-31-24 |
| Wyoming | State Program | 8TMS-L | 01-28-19 * |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

| Method | Method Description | Protocol | Laboratory |
|--------|---|----------|------------|
| 1613B | Dioxins and Furans (HRGC/HRMS) | EPA | EET SAC |
| 1613B | Separatory Funnel (L/L) Extraction with Soxhlet Extraction of Dioxin and Furans | EPA | EET SAC |

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165909-1 | Outfall008_20231222_Comp | Water | 12/22/23 09:00 | 12/22/23 17:30 |

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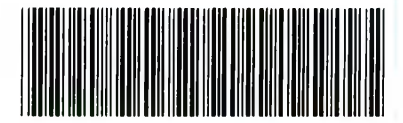
Eurofins Calscience Tustin

CHAIN OF CUSTODY FORM

| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall [008] Outfall 008 Comp | | ANALYSIS REQUIRED | | | | | | | | | | Field Readings | | | | | | | | | | | | | |
|---|--------------------------------|--|---------------|---|--------------|-----------------|----------------|---------------|---|-----------------------------------|--|----------------------|---|---|---|-------------------|--------------------------------|--|--|-----------------------|----------------|----------|--|--|---|--|--|
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | Total Recoverable Metals: (E200.6): Ni, Zn (E200.6): Ag, Cd, Cu, Pb, Sb, Se, Tl TCDD (end all congeners) (E1613B) Cl: SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (900) TDS (SM2540C/E160.1) Total Dissolved Metals: (E200.6): Ni, Zn (E200.6): Ag, Cd, Cu, Pb, Sb, Se, Tl Gross Alpha (E900.0), Gross Beta (E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K- 40, CS-137 (E901.0 or E901.1) Chronic Toxicity - Celodaphnia (EPA-821-R-02-013) ABC Labs in Ventura, CA Ammonia-N (350.2) Cyanide (SM4500-CN-E / E335.2) Total Recoverable Metals: Mercury (E245.1) Total Dissolved Metals: Mercury (E245.1) TSS (160.2 (SM2540D)) | | | | | | | | | | Comments | | | | | | | | | | | | | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs with Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sampler: Adrien Mobeka | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MS/MSD | Total Recoverable Metals: (E200.6): Ni, Zn (E200.6): Ag, Cd, Cu, Pb, Sb, Se, Tl | TCDD (end all congeners) (E1613B) | Cl: SO4, Nitrate-N, Nitrite-N, NO3+NO2-N, Perchlorate (900) | TDS (SM2540C/E160.1) | Total Dissolved Metals: (E200.6): Ni, Zn (E200.6): Ag, Cd, Cu, Pb, Sb, Se, Tl | Gross Alpha (E900.0), Gross Beta (E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K- 40, CS-137 (E901.0 or E901.1) | Chronic Toxicity - Celodaphnia (EPA-821-R-02-013) ABC Labs in Ventura, CA | Ammonia-N (350.2) | Cyanide (SM4500-CN-E / E335.2) | Total Recoverable Metals: Mercury (E245.1) | Total Dissolved Metals: Mercury (E245.1) | TSS (160.2 (SM2540D)) | Field Readings | Comments | | | | | |
| Outfall 008 | Outfall008_20231222_Comp | 12/22/2023 /0900 | WM | 500 mL Poly | 3 | HNO3 | 95 | Yes | X | | | | | | | | | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | | X | | | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 6 | None | 130 | Yes | | | | X | | | | | | | | | | | | | 48 hours Holding Time NO3 & NO2 | | |
| | | | WM | 500 mL Poly | 1 | None | 155 | No | | | | | X | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 3 | H2SO4 | 160 | Yes | | | | | | | | | | | X | | | | | | | | |
| | | | WM | 500 mL Poly | 3 | NaOH | 220 | Yes | | | | | | | | | | | | X | | | | | | | |
| | | | WM | 2.5 Gal Cube | 3 | None | 225 | Yes | | | | | | | | | X | | | | | | | | | Unfiltered and unpreserved analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD. | |
| | | | WM | 1 L Glass Amber | 3 | None | 230 | Yes | | | | | | | | | | | | | | | | | | Only test if first or second discharge events of the year. Deliver to ABC Labs in Ventura, CA | |
| | | | WM | 1 Gal Cube | 5 | None | 235 | No | | | | | | | | | | | | | | | | | | | |
| | | | WM | 1 L Poly | 1 | None | 185 | No | | | | | | | | | | | | | | | | X | | | |
| Outfall 008 | Outfall008_20231222_Comp_F | 12/22/2023 /0900 | WM | 1L Poly | 3 | None | 205 | Yes | | | | | X | | | | | | | | | | | Filter and preserve w/in 24hrs of receipt at lab | | | |
| | | | WM | borosilicate vials | 6 | None | 320 | Yes | | | | | | | | | | | | X | | | | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. Filter and preserve w/in 24hrs of receipt at lab | | |
| Outfall 008 | Outfall008_20231222_Comp_Extra | 12/22/2023 /0900 | WM | 1 L Glass Amber | 2 | None | 110 | No | | | H | | | | | | | | | | | | | Hold | | | |
| | | | WM | 500 mL Poly | 2 | None | 130 | No | | | | H | | | | | | | | | | | | | Hold | | |

Legend: EP=Expert Panel, R=Routine

| | | |
|---|---|---|
| Relinquished By: <i>Mark Dominick</i> Date/Time: 12/22/2023/1252 Company: H&A | Received By: <i>Mark EC</i> Date/Time: 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>Mark EC</i> Date/Time: 12/22/23 1230 Company: | Received By: <i>Mark EC</i> Date/Time: 12/22/23 1730 | |



570-165909 Chain of Custody

1.1/1.5 2.1/2.5 1.6/2.0 1.1/1.5 SCL4

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165909-2

Login Number: 165909

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165909-2

Login Number: 165909

List Number: 2

Creator: Hemphill, Alexis N

List Source: Eurofins Sacramento

List Creation: 12/27/23 02:34 PM

| Question | Answer | Comment |
|---|--------|------------------------------------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.3 C, 1.1 C |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/28/2024 1:46:47 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 008 - Comp

JOB NUMBER

570-165909-3

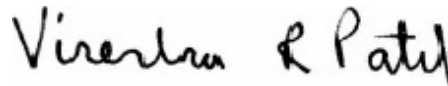
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Qualifiers

Rad

| Qualifier | Qualifier Description |
|-----------|---|
| U | Result is less than the sample detection limit. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Job ID: 570-165909-3

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Job Narrative 570-165909-3

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.5° C, 1.5° C and 2.5° C.

Receipt Exceptions

The reference method requires samples to have a pH of <2. The following samples were received with a pH of 7 :

Outfall009_20231222_Comp (570-165899-1), Outfall009_20231222_Comp (570-165899-1[MS]), Outfall009_20231222_Comp (570-165899-1[MSD]), Outfall009_20231222_Comp_F (570-165899-2), Outfall009_20231222_Comp_F (570-165899-2[MS]), Outfall009_20231222_Comp_F (570-165899-2[MSD]), Outfall009_20231222_Comp_Extra (570-165899-3), Outfall002_20231222_Comp (570-165901-1), Outfall002_20231222_Comp (570-165901-1[MS]), Outfall002_20231222_Comp (570-165901-1[MSD]), Outfall002_20231222_Comp_Extra (570-165901-2), Outfall002_20231222_Comp_F (570-165901-3), Outfall002_20231222_Comp_F (570-165901-3[MS]), Outfall002_20231222_Comp_F (570-165901-3[MSD]), Outfall008_20231222_Comp (570-165909-1), Outfall008_20231222_Comp (570-165909-1[MS]), Outfall008_20231222_Comp (570-165909-1[MSD]), Outfall008_20231222_Comp_F (570-165909-2), Outfall008_20231222_Comp_F (570-165909-2[MS]), Outfall008_20231222_Comp_F (570-165909-2[MSD]), Outfall008_20231222_Comp_Extra (570-165909-3), Outfall001_20231222_Comp (570-165916-1), Outfall001_20231222_Comp (570-165916-1[MS]), Outfall001_20231222_Comp (570-165916-1[MSD]), Outfall001_20231222_Comp_Extra (570-165916-2), Outfall001_20231222_Comp_F (570-165916-3), Outfall001_20231222_Comp_F (570-165916-3[MS]) and Outfall001_20231222_Comp_F (570-165916-3[MSD]). The samples were adjusted to the appropriate pH in the laboratory.

RAD

Method 901.1: Gamma Prep batch 160-642737

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

| Inferred from | Reported to Analyte |
|---------------|---------------------|
| Th-234 | Pa-234 |
| Th-234 | U-238 |
| Pb-210 | Po-210 |
| Pb-210 | Bi-210 |
| Cs-137 | Ba-137m |
| Pb-212 | Po-212 |
| Xe-131m | Xe-131 |
| Sb-125 | Te-125m |
| Ag-108m | Ag-108 |
| Rh-106 | Ru-106 |
| Pb-212 | Th-228 |
| Pb-212 | Ra-224 |
| U-235 | Th-231 |
| Ac-228 | Th-232 |
| Ac-228 | Ra-228 |
| Th-227 | Ra-223 |
| Th-227 | Ac-227 |
| Th-227 | Bi-211 |
| Th-227 | Pb-211 |
| Bi-214 | Ra-226 |

Outfall008_20231222_Comp (570-165909-1), (570-165650-AX-1-B) and (570-165650-AX-1-C DU)

Method ExtChrom:

Method PrecSep_0:

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Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Job ID: 570-165909-3 (Continued)

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Method PrecSep-21:

Method PrecSep-7:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Client Sample ID: Outfall008_20231222_Comp

Lab Sample ID: 570-165909-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Calscience

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Client Sample ID: Outfall008_20231222_Comp

Date Collected: 12/22/23 09:00

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1

Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Gross Alpha | 1.91 | | 0.818 | 0.847 | 3.00 | 0.956 | pCi/L | 01/03/24 10:29 | 01/15/24 14:44 | 1 |
| Gross Beta | 1.33 | | 0.683 | 0.696 | 4.00 | 0.981 | pCi/L | 01/03/24 10:29 | 01/15/24 14:44 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: EPA 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Client Sample ID: Outfall008_20231222_Comp
Date Collected: 12/22/23 09:00
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Cesium-137 | -1.17 | U | 12.5 | 12.5 | 20.0 | 15.4 | pCi/L | 01/02/24 14:27 | 01/09/24 08:58 | 1 |
| Potassium-40 | -88.6 | U | 170 | 170 | | 219 | pCi/L | 01/02/24 14:27 | 01/09/24 08:58 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: EPA 903.0 - Radium-226 (GFPC)

Client Sample ID: Outfall008_20231222_Comp
 Date Collected: 12/22/23 09:00
 Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1
 Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.0305 | U | 0.0878 | 0.0879 | 1.00 | 0.166 | pCi/L | 01/02/24 11:15 | 01/24/24 14:23 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 84.6 | | 30 - 110 | | | | | 01/02/24 11:15 | 01/24/24 14:23 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: EPA 904.0 - Radium-228 (GFPC)

Client Sample ID: Outfall008_20231222_Comp
 Date Collected: 12/22/23 09:00
 Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1
 Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.0217 | U | 0.374 | 0.374 | 1.00 | 0.702 | pCi/L | 01/02/24 11:18 | 01/18/24 11:41 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 84.6 | | 30 - 110 | | | | | 01/02/24 11:18 | 01/18/24 11:41 | 1 |
| Y Carrier | 81.5 | | 30 - 110 | | | | | 01/02/24 11:18 | 01/18/24 11:41 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: EPA 905 - Strontium-90 (GFPC)

Client Sample ID: Outfall008_20231222_Comp
Date Collected: 12/22/23 09:00
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Strontium-90 | 0.0867 | U | 0.227 | 0.227 | 3.00 | 0.394 | pCi/L | 01/03/24 10:27 | 01/11/24 15:21 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Sr Carrier | 79.8 | | 30 - 110 | | | | | 01/03/24 10:27 | 01/11/24 15:21 | 1 |
| Y Carrier | 91.6 | | 30 - 110 | | | | | 01/03/24 10:27 | 01/11/24 15:21 | 1 |



Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: EPA 906.0 - Tritium, Total (LSC)

Client Sample ID: Outfall008_20231222_Comp
 Date Collected: 12/22/23 09:00
 Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1
 Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----------------------------|-----------------------------|-----|-----|-------|----------------|----------------|---------|
| Tritium | 19.8 | U | 165 | 165 | 500 | 292 | pCi/L | 01/17/24 11:50 | 01/18/24 12:43 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: DOE A-01-R - Isotopic Uranium (Alpha Spectrometry)

Client Sample ID: Outfall008_20231222_Comp
Date Collected: 12/22/23 09:00
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165909-1
Matrix: Water

| Analyte | Result | Qualifier | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------------|--------|-----------|--------------------|--------------------|------|-------|-------|----------------|----------------|---------|
| | | | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Total Uranium | 0.186 | U | 0.208 | 0.208 | 1.00 | 0.272 | pCi/L | 01/09/24 08:25 | 01/22/24 10:08 | 1 |
| Tracer | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Uranium-232 | 75.0 | | 30 - 110 | | | | | 01/09/24 08:25 | 01/22/24 10:08 | 1 |

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Tracer/Carrier Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|------------------------------|--------------------------|-----------------------------------|--|
| Lab Sample ID | Client Sample ID | Ba (30-110) | |
| 570-165909-1 | Outfall008_20231222_Comp | 84.6 | |
| 570-165909-1 MS | Outfall008_20231222_Comp | 89.6 | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | 72.1 | |
| LCS 160-642708/2-A | Lab Control Sample | 81.3 | |
| MB 160-642708/1-A | Method Blank | 93.3 | |
| Tracer/Carrier Legend | | | |
| Ba = Ba Carrier | | | |

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|------------------------------|--------------------------|-----------------------------------|---------------|
| Lab Sample ID | Client Sample ID | Ba (30-110) | Y (30-110) |
| 570-165909-1 | Outfall008_20231222_Comp | 84.6 | 81.5 |
| 570-165909-1 MS | Outfall008_20231222_Comp | 89.6 | 79.6 |
| 570-165909-1 MSD | Outfall008_20231222_Comp | 72.1 | 75.5 |
| LCS 160-642709/2-A | Lab Control Sample | 81.3 | 76.3 |
| MB 160-642709/1-A | Method Blank | 93.3 | 83.4 |
| Tracer/Carrier Legend | | | |
| Ba = Ba Carrier | | | |
| Y = Y Carrier | | | |

Method: 905 - Strontium-90 (GFPC)

Matrix: Water

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|------------------------------|--------------------------|-----------------------------------|---------------|
| Lab Sample ID | Client Sample ID | Sr (30-110) | Y (30-110) |
| 570-165909-1 | Outfall008_20231222_Comp | 79.8 | 91.6 |
| 570-165909-1 MS | Outfall008_20231222_Comp | 79.3 | 89.0 |
| 570-165909-1 MSD | Outfall008_20231222_Comp | 75.7 | 87.5 |
| LCS 160-642791/2-A | Lab Control Sample | 82.1 | 89.0 |
| MB 160-642791/1-A | Method Blank | 77.1 | 89.7 |
| Tracer/Carrier Legend | | | |
| Sr = Sr Carrier | | | |
| Y = Y Carrier | | | |

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Water

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|--------------------|--------------------------|-----------------------------------|--|
| Lab Sample ID | Client Sample ID | U-232 (30-110) | |
| 570-165909-1 | Outfall008_20231222_Comp | 75.0 | |
| 570-165909-1 MS | Outfall008_20231222_Comp | 63.3 | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | 74.5 | |
| LCS 160-643475/2-A | Lab Control Sample | 77.5 | |
| MB 160-643475/1-A | Method Blank | 73.3 | |

Tracer/Carrier Summary

Client: Haley & Aldrich, Inc.

Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Tracer/Carrier Legend

U-232 = Uranium-232

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-642792/1-A
Matrix: Water
Analysis Batch: 644396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------|---------|-----------|-----------------|-----------------|------|-------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Gross Alpha | 0.09493 | U | 0.709 | 0.710 | 3.00 | 1.30 | pCi/L | 01/03/24 10:29 | 01/15/24 13:30 | 1 |
| Gross Beta | -0.1726 | U | 0.484 | 0.485 | 4.00 | 0.899 | pCi/L | 01/03/24 10:29 | 01/15/24 13:30 | 1 |

Lab Sample ID: LCS 160-642792/2-A
Matrix: Water
Analysis Batch: 644396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|---------|-------------|------------|----------|-----------------------|----|-----|------|------|-------------|
| | | | | | | | | | |

Lab Sample ID: LCSB 160-642792/3-A
Matrix: Water
Analysis Batch: 644400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | Spike Added | LCSB Result | LCSB Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|---------|-------------|-------------|-----------|-----------------------|----|-----|------|------|-------------|
| | | | | | | | | | |

Lab Sample ID: 570-165909-1 MS
Matrix: Water
Analysis Batch: 644329

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | Sample Result | Sample Qual | Spike Added | MS Result | MS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|---------|---------------|-------------|-------------|-----------|---------|-----------------------|----|-----|------|------|-------------|
| | | | | | | | | | | | |

Lab Sample ID: 570-165909-1 MSBT
Matrix: Water
Analysis Batch: 644329

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | Sample Result | Sample Qual | Spike Added | MSBT Result | MSBT Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|---------|---------------|-------------|-------------|-------------|-----------|-----------------------|----|-----|------|------|-------------|
| | | | | | | | | | | | |

Lab Sample ID: 570-165909-1 MSBTD
Matrix: Water
Analysis Batch: 644329

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | Sample Result | Sample Qual | Spike Added | MSBTD Result | MSBTD Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits | RER | RER Limit |
|---------|---------------|-------------|-------------|--------------|------------|-----------------------|----|-----|------|------|-------------|-----|-----------|
| | | | | | | | | | | | | | |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity (Continued)

Lab Sample ID: 570-165909-1 MSD
 Matrix: Water
 Analysis Batch: 644329

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 642792

| Analyte | Sample Result | Sample Qual | Spike Added | MSD Result | MSD Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits | RER | RER Limit |
|-------------|---------------|-------------|-------------|------------|----------|-----------------------|------|------|-------|------|-------------|------|-----------|
| Gross Alpha | 1.91 | | 49.3 | 45.22 | | 6.18 | 3.00 | 1.29 | pCi/L | 88 | 60 - 140 | 0.05 | 1 |

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-642737/1-A
 Matrix: Water
 Analysis Batch: 642931

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642737

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|-----------------------|-----------------------|------|------|-------|----------------|----------------|---------|
| Cesium-137 | 2.641 | U | 13.3 | 13.3 | 20.0 | 17.2 | pCi/L | 01/02/24 14:27 | 01/04/24 09:22 | 1 |
| Potassium-40 | 4.248 | U | 105 | 105 | | 201 | pCi/L | 01/02/24 14:27 | 01/04/24 09:22 | 1 |

Lab Sample ID: LCS 160-642737/2-A
 Matrix: Water
 Analysis Batch: 643039

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642737

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|---------------|-------------|------------|----------|-----------------------|------|------|-------|------|-------------|
| Americium-241 | 135000 | 143000 | | 17000 | | 444 | pCi/L | 106 | 75 - 125 |
| Cesium-137 | 40100 | 41770 | | 4980 | 20.0 | 107 | pCi/L | 104 | 75 - 125 |
| Cobalt-60 | 16100 | 16940 | | 2020 | | 66.3 | pCi/L | 105 | 75 - 125 |

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-642708/1-A
 Matrix: Water
 Analysis Batch: 645440

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642708

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|-----------------------|-----------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.04628 | U | 0.0759 | 0.0760 | 1.00 | 0.132 | pCi/L | 01/02/24 11:15 | 01/24/24 14:22 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 93.3 | | 30 - 110 | | | | | 01/02/24 11:15 | 01/24/24 14:22 | 1 |

Lab Sample ID: LCS 160-642708/2-A
 Matrix: Water
 Analysis Batch: 645440

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642708

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|------------|-------------|---------------|----------|-----------------------|------|-------|-------|------|-------------|
| Radium-226 | 11.3 | 11.41 | | 1.22 | 1.00 | 0.130 | pCi/L | 101 | 75 - 125 |
| Carrier | LCS %Yield | LCS Qualifier | Limits | | | | | | |
| Ba Carrier | 81.3 | | 30 - 110 | | | | | | |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 570-165909-1 MS
Matrix: Water
Analysis Batch: 645440

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total/NA
Prep Batch: 642708

| Analyte | Sample | Sample | Spike | MS | MS | Total | RL | MDC | Unit | %Rec | %Rec | Limits |
|----------------|---------------|------------------|---------------|--------|------|-------|------|-------|-------|------|----------|--------|
| | Result | Qual | | Result | Qual | | | | | | | |
| Radium-226 | 0.0305 | U | 15.3 | 13.78 | | 1.48 | 1.00 | 0.171 | pCi/L | 90 | 60 - 140 | |
| MS MS | | | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | | | | |
| Ba Carrier | 89.6 | | 30 - 110 | | | | | | | | | |

Lab Sample ID: 570-165909-1 MSD
Matrix: Water
Analysis Batch: 645440

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total/NA
Prep Batch: 642708

| Analyte | Sample | Sample | Spike | MSD | MSD | Total | RL | MDC | Unit | %Rec | %Rec | RER | Limit |
|----------------|---------------|------------------|---------------|--------|------|-------|------|-------|-------|------|----------|------|-------|
| | Result | Qual | | Result | Qual | | | | | | | | |
| Radium-226 | 0.0305 | U | 15.1 | 15.63 | | 1.69 | 1.00 | 0.203 | pCi/L | 103 | 60 - 140 | 0.58 | 1 |
| MSD MSD | | | | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | | | | | |
| Ba Carrier | 72.1 | | 30 - 110 | | | | | | | | | | |

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-642709/1-A
Matrix: Water
Analysis Batch: 644834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642709

| Analyte | MB | MB | Spike | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac | |
|----------------|---------------|------------------|---------------|-----------------|-----------------|------|-------|-----------------|----------------|-----------------|---------|----------------|
| | Result | Qualifier | | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | | |
| Radium-228 | 0.07053 | U | | 0.245 | 0.245 | 1.00 | 0.445 | pCi/L | 01/02/24 11:18 | 01/18/24 11:40 | 1 | |
| MB MB | | | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | | Analyzed | | Dil Fac |
| Ba Carrier | 93.3 | | 30 - 110 | | | | | 01/02/24 11:18 | | 01/18/24 11:40 | | 1 |
| Y Carrier | 83.4 | | 30 - 110 | | | | | 01/02/24 11:18 | | 01/18/24 11:40 | | 1 |

Lab Sample ID: LCS 160-642709/2-A
Matrix: Water
Analysis Batch: 644834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642709

| Analyte | Spike | LCS | LCS | Total | RL | MDC | Unit | %Rec | %Rec | Limits |
|----------------|---------------|------------------|---------------|-------|------|-------|-------|------|----------|--------|
| | | Result | Qual | | | | | | | |
| Radium-228 | 9.29 | 10.33 | | 1.44 | 1.00 | 0.583 | pCi/L | 111 | 75 - 125 | |
| LCS LCS | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Ba Carrier | 81.3 | | 30 - 110 | | | | | | | |
| Y Carrier | 76.3 | | 30 - 110 | | | | | | | |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 570-165909-1 MS
 Matrix: Water
 Analysis Batch: 644834

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 642709

| Analyte | Sample | Sample | Spike | MS | MS | Total | RL | MDC | Unit | %Rec | %Rec | Limits |
|----------------|---------------|------------------|---------------|--------|------|-------|------|-------|-------|------|----------|--------|
| | Result | Qual | | Result | Qual | | | | | | | |
| Radium-228 | 0.0217 | U | 12.5 | 12.42 | | 1.71 | 1.00 | 0.636 | pCi/L | 99 | 60 - 140 | |
| MS MS | | | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | | | | |
| Ba Carrier | 89.6 | | 30 - 110 | | | | | | | | | |
| Y Carrier | 79.6 | | 30 - 110 | | | | | | | | | |

Lab Sample ID: 570-165909-1 MSD
 Matrix: Water
 Analysis Batch: 644834

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 642709

| Analyte | Sample | Sample | Spike | MSD | MSD | Total | RL | MDC | Unit | %Rec | %Rec | RER | Limit |
|----------------|---------------|------------------|---------------|--------|------|-------|------|-------|-------|------|----------|------|-------|
| | Result | Qual | | Result | Qual | | | | | | | | |
| Radium-228 | 0.0217 | U | 12.4 | 14.69 | | 2.08 | 1.00 | 0.842 | pCi/L | 118 | 60 - 140 | 0.60 | 1 |
| MSD MSD | | | | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | | | | | |
| Ba Carrier | 72.1 | | 30 - 110 | | | | | | | | | | |
| Y Carrier | 75.5 | | 30 - 110 | | | | | | | | | | |

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-642791/1-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642791

| Analyte | MB | MB | Spike | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|----------------|---------------|------------------|---------------|-----------------|-----------------|----------------|-------|-------|----------------|----------------|---------|
| | Result | Qualifier | | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Strontium-90 | 0.2084 | U | 0.194 | 0.194 | 0.194 | 3.00 | 0.311 | pCi/L | 01/03/24 10:27 | 01/11/24 15:19 | 1 |
| MB MB | | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | Prepared | Analyzed | Dil Fac | | | | | |
| Sr Carrier | 77.1 | | 30 - 110 | 01/03/24 10:27 | 01/11/24 15:19 | 1 | | | | | |
| Y Carrier | 89.7 | | 30 - 110 | 01/03/24 10:27 | 01/11/24 15:19 | 1 | | | | | |

Lab Sample ID: LCS 160-642791/2-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642791

| Analyte | Spike | LCS | LCS | Total | RL | MDC | Unit | %Rec | %Rec | Limits |
|----------------|---------------|------------------|---------------|-------|------|-------|-------|------|----------|--------|
| | | Result | Qual | | | | | | | |
| Strontium-90 | 7.21 | 7.723 | | 0.842 | 3.00 | 0.278 | pCi/L | 107 | 75 - 125 | |
| LCS LCS | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Sr Carrier | 82.1 | | 30 - 110 | | | | | | | |
| Y Carrier | 89.0 | | 30 - 110 | | | | | | | |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: 570-165909-1 MS
 Matrix: Water
 Analysis Batch: 643955

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 642791

| Analyte | Sample | Sample | Spike | MS | MS | Total | RL | MDC | Unit | %Rec | %Rec | Limits |
|----------------|---------------|------------------|---------------|--------|------|-------|------|-------|-------|------|------|----------|
| | Result | Qual | | Result | Qual | | | | | | | |
| Strontium-90 | 0.0867 | U | 9.52 | 10.38 | | 1.14 | 3.00 | 0.388 | pCi/L | 108 | | 60 - 140 |
| MS MS | | | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | | | | |
| Sr Carrier | 79.3 | | 30 - 110 | | | | | | | | | |
| Y Carrier | 89.0 | | 30 - 110 | | | | | | | | | |

Lab Sample ID: 570-165909-1 MSD
 Matrix: Water
 Analysis Batch: 643955

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 642791

| Analyte | Sample | Sample | Spike | MSD | MSD | Total | RL | MDC | Unit | %Rec | %Rec | RER | Limit |
|----------------|---------------|------------------|---------------|--------|------|-------|------|-------|-------|------|------|------|-------|
| | Result | Qual | | Result | Qual | | | | | | | | |
| Strontium-90 | 0.0867 | U | 9.55 | 10.48 | | 1.17 | 3.00 | 0.414 | pCi/L | 109 | | 0.04 | 1 |
| MSD MSD | | | | | | | | | | | | | |
| Carrier | %Yield | Qualifier | Limits | | | | | | | | | | |
| Sr Carrier | 75.7 | | 30 - 110 | | | | | | | | | | |
| Y Carrier | 87.5 | | 30 - 110 | | | | | | | | | | |

Method: 906.0 - Tritium, Total (LSC)

Lab Sample ID: MB 160-644673/1-A
 Matrix: Water
 Analysis Batch: 644941

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 644673

| Analyte | MB | MB | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-------|-----|-----|-------|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | | |
| Tritium | -77.93 | U | 158 | 159 | 500 | 301 | pCi/L | 01/17/24 11:50 | 01/18/24 07:26 | 1 |

Lab Sample ID: LCS 160-644673/2-A
 Matrix: Water
 Analysis Batch: 644941

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 644673

| Analyte | Spike | LCS | LCS | Total | RL | MDC | Unit | %Rec | %Rec | Limits |
|---------|-------|------|-----|-------|-----|-----|-------|------|------|----------|
| | | | | | | | | | | |
| Tritium | 2000 | 1928 | | 368 | 500 | 323 | pCi/L | 96 | | 75 - 125 |

Lab Sample ID: 570-165909-1 MS
 Matrix: Water
 Analysis Batch: 644941

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 644673

| Analyte | Sample | Sample | Spike | MS | MS | Total | RL | MDC | Unit | %Rec | %Rec | Limits |
|---------|--------|--------|-------|--------|------|-------|-----|-----|-------|------|------|----------|
| | Result | Qual | | Result | Qual | | | | | | | |
| Tritium | 19.8 | U | 2000 | 1771 | | 344 | 500 | 303 | pCi/L | 87 | | 60 - 140 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: 906.0 - Tritium, Total (LSC) (Continued)

Lab Sample ID: 570-165909-1 MSD
 Matrix: Water
 Analysis Batch: 644941

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 644673

| Analyte | Sample Result | Sample Qual | Spike Added | MSD Result | MSD Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits | RER | RER Limit |
|---------|---------------|-------------|-------------|------------|----------|-----------------------|-----|-----|-------|------|-------------|------|-----------|
| Tritium | 19.8 | U | 2000 | 2014 | | 371 | 500 | 313 | pCi/L | 100 | 60 - 140 | 0.34 | 1 |

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Lab Sample ID: MB 160-643475/1-A
 Matrix: Water
 Analysis Batch: 645111

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 643475

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------------|-----------|--------------|-----------------------|-----------------------|------|-------|-------|----------------|----------------|---------|
| Total Uranium | 0.08145 | U | 0.1267 | 0.1268 | 1.00 | 0.185 | pCi/L | 01/09/24 08:25 | 01/22/24 10:07 | 1 |
| Tracer | MB %Yield | MB Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Uranium-232 | 73.3 | | 30 - 110 | | | | | 01/09/24 08:25 | 01/22/24 10:07 | 1 |

Lab Sample ID: LCS 160-643475/2-A
 Matrix: Water
 Analysis Batch: 645113

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 643475

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|-------------|-------------|---------------|----------|-----------------------|------|-------|-------|------|-------------|
| Uranium-234 | 12.7 | 13.15 | | 1.58 | 1.00 | 0.139 | pCi/L | 103 | 75 - 125 |
| Uranium-238 | 13.0 | 14.59 | | 1.71 | 1.00 | 0.111 | pCi/L | 112 | 75 - 125 |
| Tracer | LCS %Yield | LCS Qualifier | Limits | | | | | | |
| Uranium-232 | 77.5 | | 30 - 110 | | | | | | |

Lab Sample ID: 570-165909-1 MS
 Matrix: Water
 Analysis Batch: 645121

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 643475

| Analyte | Sample Result | Sample Qual | Spike Added | MS Result | MS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|-------------|---------------|--------------|-------------|-----------|---------|-----------------------|------|-------|-------|------|-------------|
| Uranium-234 | 0.126 | U | 25.4 | 24.17 | | 3.13 | 1.00 | 0.380 | pCi/L | 95 | 60 - 140 |
| Uranium-238 | -0.0269 | U | 26.0 | 26.29 | | 3.33 | 1.00 | 0.380 | pCi/L | 101 | 60 - 140 |
| Tracer | MS %Yield | MS Qualifier | Limits | | | | | | | | |
| Uranium-232 | 63.3 | | 30 - 110 | | | | | | | | |

Lab Sample ID: 570-165909-1 MSD
 Matrix: Water
 Analysis Batch: 645046

Client Sample ID: Outfall008_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 643475

| Analyte | Sample Result | Sample Qual | Spike Added | MSD Result | MSD Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits | RER | RER Limit |
|-------------|---------------|-------------|-------------|------------|----------|-----------------------|------|-------|-------|------|-------------|------|-----------|
| Uranium-234 | 0.126 | U | 25.5 | 27.76 | | 3.34 | 1.00 | 0.479 | pCi/L | 108 | 60 - 140 | 0.55 | 1 |
| Uranium-238 | -0.0269 | U | 26.0 | 30.03 | | 3.53 | 1.00 | 0.264 | pCi/L | 115 | 60 - 140 | 0.55 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Lab Sample ID: 570-165909-1 MSD
Matrix: Water
Analysis Batch: 645046

Client Sample ID: Outfall008_20231222_Comp
Prep Type: Total/NA
Prep Batch: 643475

| <i>Tracer</i> | <i>%Yield</i> | <i>MSD MSD</i> <i>Qualifier</i> | <i>Limits</i> |
|---------------|---------------|------------------------------------|---------------|
| Uranium-232 | 74.5 | | 30 - 110 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Rad

Prep Batch: 642708

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|------------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | PrecSep-21 | |
| MB 160-642708/1-A | Method Blank | Total/NA | Water | PrecSep-21 | |
| LCS 160-642708/2-A | Lab Control Sample | Total/NA | Water | PrecSep-21 | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | PrecSep-21 | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | PrecSep-21 | |

Prep Batch: 642709

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | PrecSep_0 | |
| MB 160-642709/1-A | Method Blank | Total/NA | Water | PrecSep_0 | |
| LCS 160-642709/2-A | Lab Control Sample | Total/NA | Water | PrecSep_0 | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | PrecSep_0 | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | PrecSep_0 | |

Prep Batch: 642737

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|------------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | Fill_Geo-0 | |
| MB 160-642737/1-A | Method Blank | Total/NA | Water | Fill_Geo-0 | |
| LCS 160-642737/2-A | Lab Control Sample | Total/NA | Water | Fill_Geo-0 | |

Prep Batch: 642791

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | PrecSep-7 | |
| MB 160-642791/1-A | Method Blank | Total/NA | Water | PrecSep-7 | |
| LCS 160-642791/2-A | Lab Control Sample | Total/NA | Water | PrecSep-7 | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | PrecSep-7 | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | PrecSep-7 | |

Prep Batch: 642792

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|-------------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | Evaporation | |
| MB 160-642792/1-A | Method Blank | Total/NA | Water | Evaporation | |
| LCS 160-642792/2-A | Lab Control Sample | Total/NA | Water | Evaporation | |
| LCSB 160-642792/3-A | Lab Control Sample | Total/NA | Water | Evaporation | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | Evaporation | |
| 570-165909-1 MSBT | Outfall008_20231222_Comp | Total/NA | Water | Evaporation | |
| 570-165909-1 MSBTD | Outfall008_20231222_Comp | Total/NA | Water | Evaporation | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | Evaporation | |

Prep Batch: 643475

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | ExtChrom | |
| MB 160-643475/1-A | Method Blank | Total/NA | Water | ExtChrom | |
| LCS 160-643475/2-A | Lab Control Sample | Total/NA | Water | ExtChrom | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | ExtChrom | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | ExtChrom | |

Prep Batch: 644673

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|---------------|------------|
| 570-165909-1 | Outfall008_20231222_Comp | Total/NA | Water | LSC_Dist_Susp | |
| MB 160-644673/1-A | Method Blank | Total/NA | Water | LSC_Dist_Susp | |

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Rad (Continued)

Prep Batch: 644673 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|---------------|------------|
| LCS 160-644673/2-A | Lab Control Sample | Total/NA | Water | LSC_Dist_Susp | |
| 570-165909-1 MS | Outfall008_20231222_Comp | Total/NA | Water | LSC_Dist_Susp | |
| 570-165909-1 MSD | Outfall008_20231222_Comp | Total/NA | Water | LSC_Dist_Susp | |

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Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Client Sample ID: Outfall008_20231222_Comp

Lab Sample ID: 570-165909-1

Date Collected: 12/22/23 09:00

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------------|------------|---------------|-----|------------|----------------|--------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | Evaporation | | | 200.02 mL | 1.0 g | 642792 | 01/03/24 10:29 | ASG | EET SL |
| Total/NA | Analysis | 900.0 | | 1 | | | 644329 | 01/15/24 14:44 | FLC | EET SL |
| Instrument ID: GFPCRED | | | | | | | | | | |
| Total/NA | Prep | Fill_Geo-0 | | | 1000 mL | 1.0 g | 642737 | 01/02/24 14:27 | AJP | EET SL |
| Total/NA | Analysis | 901.1 | | 1 | | | 643594 | 01/09/24 08:58 | CAH | EET SL |
| Instrument ID: GAMMAVISION | | | | | | | | | | |
| Total/NA | Prep | PrecSep-21 | | | 745.43 mL | 1.0 g | 642708 | 01/02/24 11:15 | KAC | EET SL |
| Total/NA | Analysis | 903.0 | | 1 | | | 645440 | 01/24/24 14:23 | FLC | EET SL |
| Instrument ID: GFPCBLUE | | | | | | | | | | |
| Total/NA | Prep | PrecSep_0 | | | 745.43 mL | 1.0 g | 642709 | 01/02/24 11:18 | KAC | EET SL |
| Total/NA | Analysis | 904.0 | | 1 | | | 644834 | 01/18/24 11:41 | FLC | EET SL |
| Instrument ID: GFPCORANGE | | | | | | | | | | |
| Total/NA | Prep | PrecSep-7 | | | 746.21 mL | 1.0 g | 642791 | 01/03/24 10:27 | KAC | EET SL |
| Total/NA | Analysis | 905 | | 1 | | | 643958 | 01/11/24 15:21 | CMM | EET SL |
| Instrument ID: GFPCORANGE | | | | | | | | | | |
| Total/NA | Prep | LSC_Dist_Susp | | | 99.99 mL | 1.0 g | 644673 | 01/17/24 11:50 | MST | EET SL |
| Total/NA | Analysis | 906.0 | | 1 | | | 644941 | 01/18/24 12:43 | MLK | EET SL |
| Instrument ID: LSCBROWN | | | | | | | | | | |
| Total/NA | Prep | ExtChrom | | | 250.51 mL | 1.0 mL | 643475 | 01/09/24 08:25 | MLT | EET SL |
| Total/NA | Analysis | A-01-R | | 1 | | | 645120 | 01/22/24 10:08 | FLC | EET SL |
| Instrument ID: ALPHAVISION | | | | | | | | | | |

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|--------------------------|---|----------------------------|-----------------|
| Alaska (UST) | State | 20-001 | 05-06-25 |
| ANAB | Dept. of Defense ELAP | L2305 | 04-06-25 |
| ANAB | Dept. of Energy | L2305.01 | 04-06-25 |
| ANAB | ISO/IEC 17025 | L2305 | 04-06-25 |
| Arizona | State | AZ0813 | 12-08-24 |
| California | Los Angeles County Sanitation Districts | 10259 | 06-30-22 * |
| California | State | 2886 | 06-30-24 |
| Connecticut | State | PH-0241 | 03-31-25 |
| Florida | NELAP | E87689 | 06-30-24 |
| HI - RadChem Recognition | State | n/a | 06-30-24 |
| Illinois | NELAP | 200023 | 11-30-24 |
| Iowa | State | 373 | 12-01-24 |
| Kansas | NELAP | E-10236 | 10-31-24 |
| Kentucky (DW) | State | KY90125 | 12-31-24 |
| Kentucky (WW) | State | KY90125 (Permit KY0004049) | 12-31-24 |
| Louisiana | NELAP | 04080 | 06-30-22 * |
| Louisiana (All) | NELAP | 04080 | 06-30-24 |
| Louisiana (DW) | State | LA011 | 12-31-24 |
| Maryland | State | 310 | 09-30-24 |
| Massachusetts | State | M-MO054 | 06-30-24 |
| MI - RadChem Recognition | State | 9005 | 06-30-24 |
| Missouri | State | 780 | 06-30-25 |
| Nevada | State | MO000542020-1 | 07-31-24 |
| New Jersey | NELAP | MO002 | 06-30-24 |
| New Mexico | State | MO00054 | 06-30-24 |
| New York | NELAP | 11616 | 03-31-24 |
| North Carolina (DW) | State | 29700 | 07-31-24 |
| North Dakota | State | R-207 | 06-30-24 |
| Oklahoma | NELAP | 9997 | 08-31-24 |
| Oregon | NELAP | 4157 | 09-01-24 |
| Pennsylvania | NELAP | 68-00540 | 02-28-24 |
| South Carolina | State | 85002001 | 06-30-24 |
| Texas | NELAP | T104704193 | 07-31-24 |
| US Fish & Wildlife | US Federal Programs | 058448 | 07-31-24 |
| USDA | US Federal Programs | P330-17-00028 | 05-18-26 |
| Utah | NELAP | MO000542021-14 | 07-31-24 |
| Virginia | NELAP | 10310 | 06-15-25 |
| Washington | State | C592 | 08-30-24 |
| West Virginia DEP | State | 381 | 01-31-24 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

| Method | Method Description | Protocol | Laboratory |
|---------------|--|----------|------------|
| 900.0 | Gross Alpha and Gross Beta Radioactivity | EPA | EET SL |
| 901.1 | Cesium 137 & Other Gamma Emitters (GS) | EPA | EET SL |
| 903.0 | Radium-226 (GFPC) | EPA | EET SL |
| 904.0 | Radium-228 (GFPC) | EPA | EET SL |
| 905 | Strontium-90 (GFPC) | EPA | EET SL |
| 906.0 | Tritium, Total (LSC) | EPA | EET SL |
| A-01-R | Isotopic Uranium (Alpha Spectrometry) | DOE | EET SL |
| Evaporation | Preparation, Evaporation | None | EET SL |
| ExtChrom | Preparation, Extraction Chromatography Resin Actinide Separation | None | EET SL |
| Fill_Geo-0 | Fill Geometry, No In-Growth | None | EET SL |
| LSC_Dist_Susp | Distillation and Suspension (LSC) | None | EET SL |
| PrecSep_0 | Preparation, Precipitate Separation | None | EET SL |
| PrecSep-21 | Preparation, Precipitate Separation (21-Day In-Growth) | None | EET SL |
| PrecSep-7 | Preparation, Precipitate Separation (7-Day In-Growth) | None | EET SL |

Protocol References:

DOE = U.S. Department of Energy
EPA = US Environmental Protection Agency
None = None

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 008 - Comp

Job ID: 570-165909-3

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165909-1 | Outfall008_20231222_Comp | Water | 12/22/23 09:00 | 12/22/23 17:30 |

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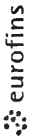
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Chain of Custody Record



Client Information (Sub Contract Lab)
 Client Contact: Patel, Virendra
 Shipping/Receiving: Virendra.Patel@eurofins.com
 Company: TestAmerica Laboratories, Inc.
 Address: 13715 Rider Trail North,
 City: Earth City
 State, Zip: MO, 63045
 Phone: 314-298-8566(Tel) 314-298-8757(Fax)
 Email:
 Project Name: Boeing NPDES SSFL - Outfall 008 - Comp
 Site:

Lab PM: Patel, Virendra
 E-Mail: Virendra.Patel@eurofins.com
 Carrier (Tracking Ref):
 State of Origin: California
 Page 1 of 1
 Job #: 570-165909-3
 Preservation Codes:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2OAS
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4-5
 Y - Trizma
 L - EDTA
 Z - other (specify)
 Other:

Accreditations Required (See note): State - California; State Program - California

Analysis Requested

| Sample ID | Sample Name | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=Water, S=Solid, O=Other) | Field Filtered Sample (Yes or No) | Form MS/MSD (Yes or No) | 900.0/Evaporation Gross Alpha/Beta | 906.0/R/SC Dial Susp Tritium | 905.5/90/Presep_7 Strontium-90 | 903.0/Presep_21 Radium-226 | 904.0/Presep_0 Radium-228 | A01R_UreXchrom_Actin Total Uranium | 901.1_Ca/Fill_Geo_0 K-40 and Caium-137 | Total Number of Containers | Special Instructions/Note: |
|--|-------------|-------------|---------------|------------------------------|------------------------------------|-----------------------------------|-------------------------|------------------------------------|------------------------------|--------------------------------|----------------------------|---------------------------|------------------------------------|--|----------------------------|---|
| Outfall008_20231222_Comp (570-165909-1) | | 12/22/23 | 09:00 Pacific | | Water | | | X | X | X | X | X | X | X | 2 | Boeing SSFL; DO NOT FILTER; use prep date from preservation. Ok to Preserve |
| Outfall008_20231222_Comp (570-165909-1MS) | | 12/22/23 | 09:00 Pacific | MS | Water | | | X | X | X | X | X | X | X | 2 | Boeing SSFL; DO NOT FILTER; use prep date from preservation. Ok to Preserve |
| Outfall008_20231222_Comp (570-165909-1MSD) | | 12/22/23 | 09:00 Pacific | MSD | Water | | | X | X | X | X | X | X | X | 2 | Boeing SSFL; DO NOT FILTER; use prep date from preservation. Ok to Preserve |

Sample Identification - Client ID (Lab ID)

Sample Date: 12/28/23
 Sample Time: 12:46
 Date: 12/28/23
 Time: 12:46

Primary Deliverable Rank: 2

Special Instructions/QC Requirements:
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Method of Shipment:

Received by: *Richard Thomley*
 Date/Time: DEC 29 2023 08:10
 Company: EHA STL
 Received by:
 Date/Time:
 Company:
 Received by:
 Date/Time:
 Company:
 Cooler Temperature(s) °C and Other Remarks:

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify)
 Empty Kit Relinquished by:
 Relinquished by: *MP Patel*
 Relinquished by:
 Relinquished by:
 Custody Seals Intact: Custody Seal No.:
 Δ Yes Δ No



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165909-3

Login Number: 165909

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165909-3

Login Number: 165909

List Number: 3

Creator: Thornley, Richard W

List Source: Eurofins St. Louis

List Creation: 12/29/23 12:48 PM

| Question | Answer | Comment |
|--|--------|------------------------------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | N/A | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | Samples preserved on arrival |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 12/30/2023 10:25:01 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 009 - Grab

JOB NUMBER

570-165632-1

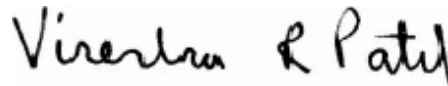
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



Generated
12/30/2023 10:25:01 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Grab

Job ID: 570-165632-1

Qualifiers

General Chemistry

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 009 - Grab

Job ID: 570-165632-1

Job ID: 570-165632-1

Eurofins Calscience

Job Narrative 570-165632-1

Receipt

The samples were received on 12/21/2023 5:10 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5° C.

GC Semi VOA

Methods 1664A, 1664B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-395720 and analytical batch 570-396228.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Methods 1664A, 1664B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-395720. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Method 1664A.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Grab

Job ID: 570-165632-1

Client Sample ID: Outfall009_20231221_Grab

Lab Sample ID: 570-165632-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|--------------------|--------|-----------|------|------|------|---------|---|--------|-----------|
| HEM (Oil & Grease) | 0.58 | J,DX | 0.96 | 0.49 | mg/L | 1 | | 1664A | Total/NA |

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This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Grab

Job ID: 570-165632-1

General Chemistry

Client Sample ID: Outfall009_20231221_Grab

Date Collected: 12/21/23 07:50

Date Received: 12/21/23 17:10

Lab Sample ID: 570-165632-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| HEM (Oil & Grease) (1664A) | 0.58 | J,DX | 0.96 | 0.49 | mg/L | | 12/22/23 12:25 | 12/27/23 08:33 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Grab

Job ID: 570-165632-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-395720/1-A
Matrix: Water
Analysis Batch: 396228

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 395720

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| HEM (Oil & Grease) | ND | | 1.0 | 0.51 | mg/L | | 12/22/23 12:24 | 12/27/23 08:33 | 1 |

Lab Sample ID: LCS 570-395720/2-A
Matrix: Water
Analysis Batch: 396228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 395720

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|-------------|------------|---------------|------|---|------|-------------|
| HEM (Oil & Grease) | 40.0 | 31.6 | | mg/L | | 79 | 78 - 114 |

Lab Sample ID: LCSD 570-395720/3-A
Matrix: Water
Analysis Batch: 396228

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 395720

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| HEM (Oil & Grease) | 40.0 | 31.7 | | mg/L | | 79 | 78 - 114 | 0 | 18 |

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Grab

Job ID: 570-165632-1

General Chemistry

Prep Batch: 395720

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165632-1 | Outfall009_20231221_Grab | Total/NA | Water | 1664A | |
| MB 570-395720/1-A | Method Blank | Total/NA | Water | 1664A | |
| LCS 570-395720/2-A | Lab Control Sample | Total/NA | Water | 1664A | |
| LCSD 570-395720/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | |

Analysis Batch: 396228

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165632-1 | Outfall009_20231221_Grab | Total/NA | Water | 1664A | 395720 |
| MB 570-395720/1-A | Method Blank | Total/NA | Water | 1664A | 395720 |
| LCS 570-395720/2-A | Lab Control Sample | Total/NA | Water | 1664A | 395720 |
| LCSD 570-395720/3-A | Lab Control Sample Dup | Total/NA | Water | 1664A | 395720 |



Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Grab

Job ID: 570-165632-1

Client Sample ID: Outfall009_20231221_Grab

Lab Sample ID: 570-165632-1

Date Collected: 12/21/23 07:50

Matrix: Water

Date Received: 12/21/23 17:10

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Prep | 1664A | | | 1040 mL | 1000 mL | 395720 | 12/22/23 12:25 | YTB4 | EET CAL 4 |
| Total/NA | Analysis | 1664A | | 1 | | | 396228 | 12/27/23 08:33 | VB5S | EET CAL 4 |

Instrument ID: NO EQUIQ

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Grab

Job ID: 570-165632-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|------------|---|-----------------------|-----------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Grab

Job ID: 570-165632-1

| Method | Method Description | Protocol | Laboratory |
|--------|---------------------------|----------|------------|
| 1664A | HEM and SGT-HEM | 1664A | EET CAL 4 |
| 1664A | HEM and SGT-HEM (Aqueous) | 1664A | EET CAL 4 |

Protocol References:

1664A = EPA-821-98-002

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Grab

Job ID: 570-165632-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165632-1 | Outfall009_20231221_Grab | Water | 12/21/23 07:50 | 12/21/23 17:10 |

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165632 UJ6P

CHAIN OF CUSTODY FORM

| | | | | | | | | | | | | | | | |
|---|--|--|-------------------|-------------|--------------------|---------------|----------------|------------|--|---|------|--|---|----------------------|--------|
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall [003-007, 009, 010] Outfall 009 Grab | | | | | | | ANALYSIS REQUIRED | | | | Field Readings | Meter serial # 15RA2 | |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #67013187 | | | | | | | | | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | | | | Field Readings: (Include units) Time of Readings: 0745 pH 7.20 pH unit Temp 55-1 C/F | | |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement 2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | Oil & Grease (E1664A-HEM) | | | | Comments | | |
| Sampler: Mark Dominick | | Sample Description | | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | | | | | Preservative | Bottle # | MS/MSD |
| Outfall 009 | | Outfall009_20231221_Grab | 12/21/2023 / 0750 | WM | 1 L Glass Amber | 2 | HCl | 15 | No | X | | | | | |
| | | Outfall009_20231221_Grab_Extra | 12/21/2023 / 0750 | WM | 1 L Glass Amber | 2 | HCl | 15 | No | H | Hold | | | | |



570-165632 Chain of Custody

Legend: R=Routine

| | | |
|---|--|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12-21-2023 / 1310 Company: H:A | Received By: <i>[Signature]</i> EC Date/Time: 12/21/23 1310 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> X 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> EC Date/Time: 12/21/23 1710 Company: | Received By: <i>[Signature]</i> Date/Time: 12/21/23 1710 | Sample Integrity: (Check) Intact: _____ On Ice: _____ Store samples for 6 months. Data Requirements: (Check) No Level IV: _____ All Level IV: <input checked="" type="checkbox"/> X |

2.1/2.5 SC14

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165632-1

Login Number: 165632

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/15/2024 8:17:37 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 009 - Comp

JOB NUMBER

570-165899-1

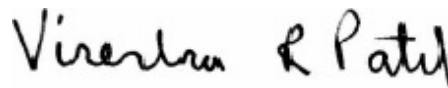
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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1/15/2024 8:17:37 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Qualifiers

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| BB | Sample > 4X spike concentration |
| BU | Sample was prepped beyond the specified holding time |
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| LN | MS and/or MSD below acceptance limits. See Blank Spike (LCS) |
| MB | Analyte present in the method blank |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Job ID: 570-165899-1

Eurofins Calscience

Job Narrative 570-165899-1

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7° C and 2.0° C.

Receipt Exceptions

The number of containers for the following samples did not match the information listed on the Chain-of-Custody (COC): Outfall009_20231222_Comp (570-165899-1). Received only one 500 ml w/HNO3 container, while the COC lists 3.

HPLC/IC

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method 200.8: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-396691 and analytical batch 570-397364 were outside control limits for Antimony and Selenium. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 200.8: The method blank for preparation batch 570-397913 and analytical batch 570-398534 contained Antimony above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 245.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-399973 and 570-399987 and analytical batch 570-400677 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method Filtration: The following samples were not filtered within 15 minutes of sample collection as required by the method: Outfall009_20231222_Comp_F (570-165899-2), Outfall009_20231222_Comp_F (570-165899-2[MS]) and Outfall009_20231222_Comp_F (570-165899-2[MSD]). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method Kelada 01: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 570-398571 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Client Sample ID: Outfall009_20231222_Comp

Lab Sample ID: 570-165899-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|------|-------|------|---------|---|-------------|-------------------|
| Chloride | 2.0 | | 1.0 | 0.36 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 3.4 | | 1.0 | 0.18 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate Nitrite as N | 0.79 | | 0.10 | 0.020 | mg/L | 1 | | NO2NO3 Calc | Total/NA |
| Antimony | 4.3 | | 2.0 | 0.36 | ug/L | 1 | | 200.8 | Total Recoverable |
| Cadmium | 0.36 | J,DX | 1.0 | 0.13 | ug/L | 1 | | 200.8 | Total Recoverable |
| Copper | 13 | | 2.0 | 0.32 | ug/L | 1 | | 200.8 | Total Recoverable |
| Lead | 380 | | 1.0 | 0.12 | ug/L | 1 | | 200.8 | Total Recoverable |
| Nickel | 13 | | 2.0 | 0.17 | ug/L | 1 | | 200.8 | Total Recoverable |
| Selenium | 2.0 | | 2.0 | 0.52 | ug/L | 1 | | 200.8 | Total Recoverable |
| Silver | 0.57 | J,DX | 1.0 | 0.23 | ug/L | 1 | | 200.8 | Total Recoverable |
| Thallium | 0.20 | J,DX | 1.0 | 0.11 | ug/L | 1 | | 200.8 | Total Recoverable |
| Zinc | 58 | | 20 | 2.8 | ug/L | 1 | | 200.8 | Total Recoverable |
| Total Dissolved Solids | 160 | | 10 | 8.7 | mg/L | 1 | | SM 2540C | Total/NA |
| Total Suspended Solids | 260 | | 10 | 8.0 | mg/L | 1 | | SM 2540D | Total/NA |

Client Sample ID: Outfall009_20231222_Comp_F

Lab Sample ID: 570-165899-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| Antimony | 3.2 | BU MB | 2.0 | 0.36 | ug/L | 1 | | 200.8 | Dissolved |
| Copper | 2.0 | BU | 2.0 | 0.32 | ug/L | 1 | | 200.8 | Dissolved |
| Lead | 19 | BU | 1.0 | 0.12 | ug/L | 1 | | 200.8 | Dissolved |
| Nickel | 1.3 | J,DX BU | 2.0 | 0.17 | ug/L | 1 | | 200.8 | Dissolved |
| Zinc | 3.2 | J,DX BU | 20 | 2.8 | ug/L | 1 | | 200.8 | Dissolved |

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: EPA 300.0 - Anions, Ion Chromatography

Client Sample ID: Outfall009_20231222_Comp

Date Collected: 12/22/23 08:25

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Chloride | 2.0 | | 1.0 | 0.36 | mg/L | | | 12/23/23 09:51 | 1 |
| Sulfate | 3.4 | | 1.0 | 0.18 | mg/L | | | 12/23/23 09:51 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: EPA NO2NO3 Calc - Nitrogen, Nitrate-Nitrite

Client Sample ID: Outfall009_20231222_Comp

Date Collected: 12/22/23 08:25

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Nitrate Nitrite as N | 0.79 | | 0.10 | 0.020 | mg/L | | | 12/23/23 09:51 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: Outfall009_20231222_Comp

Date Collected: 12/22/23 08:25

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Antimony | 4.3 | | 2.0 | 0.36 | ug/L | | 12/28/23 09:21 | 12/29/23 11:13 | 1 |
| Cadmium | 0.36 | J,DX | 1.0 | 0.13 | ug/L | | 12/28/23 09:21 | 12/29/23 11:13 | 1 |
| Copper | 13 | | 2.0 | 0.32 | ug/L | | 12/28/23 09:21 | 12/29/23 11:13 | 1 |
| Lead | 380 | | 1.0 | 0.12 | ug/L | | 12/28/23 09:21 | 12/29/23 11:13 | 1 |
| Nickel | 13 | | 2.0 | 0.17 | ug/L | | 12/28/23 09:21 | 12/29/23 11:13 | 1 |
| Selenium | 2.0 | | 2.0 | 0.52 | ug/L | | 12/28/23 09:21 | 12/29/23 11:13 | 1 |
| Silver | 0.57 | J,DX | 1.0 | 0.23 | ug/L | | 12/28/23 09:21 | 12/29/23 11:13 | 1 |
| Thallium | 0.20 | J,DX | 1.0 | 0.11 | ug/L | | 12/28/23 09:21 | 12/29/23 11:13 | 1 |
| Zinc | 58 | | 20 | 2.8 | ug/L | | 12/28/23 09:21 | 12/29/23 11:13 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: Outfall009_20231222_Comp_F

Date Collected: 12/22/23 08:25

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-2

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Antimony | 3.2 | BU MB | 2.0 | 0.36 | ug/L | | | 01/05/24 14:10 | 1 |
| Cadmium | ND | BU | 1.0 | 0.13 | ug/L | | | 01/05/24 14:10 | 1 |
| Copper | 2.0 | BU | 2.0 | 0.32 | ug/L | | | 01/05/24 14:10 | 1 |
| Lead | 19 | BU | 1.0 | 0.12 | ug/L | | | 01/05/24 14:10 | 1 |
| Nickel | 1.3 | J,DX BU | 2.0 | 0.17 | ug/L | | | 01/05/24 14:10 | 1 |
| Selenium | ND | BU | 2.0 | 0.52 | ug/L | | | 01/05/24 14:10 | 1 |
| Silver | ND | BU | 1.0 | 0.23 | ug/L | | | 01/05/24 14:10 | 1 |
| Thallium | ND | BU | 1.0 | 0.11 | ug/L | | | 01/05/24 14:10 | 1 |
| Zinc | 3.2 | J,DX BU | 20 | 2.8 | ug/L | | | 01/05/24 14:10 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: Outfall009_20231222_Comp
Date Collected: 12/22/23 08:25
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/10/24 13:26 | 01/12/24 12:09 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: EPA 245.1 - Mercury (CVAA) - Dissolved

Client Sample ID: Outfall009_20231222_Comp_F
Date Collected: 12/22/23 08:25
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-2
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | BU | 0.20 | 0.12 | ug/L | | 01/10/24 13:26 | 01/12/24 12:15 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

General Chemistry

Client Sample ID: Outfall009_20231222_Comp

Date Collected: 12/22/23 08:25

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|------------|-----------|-----|-----|------|---|----------|----------------|---------|
| Cyanide, Total (EPA Kelada 01) | ND | | 5.0 | 2.5 | ug/L | | | 01/04/24 15:46 | 1 |
| Total Dissolved Solids (SM 2540C) | 160 | | 10 | 8.7 | mg/L | | | 12/28/23 13:20 | 1 |
| Total Suspended Solids (SM 2540D) | 260 | | 10 | 8.0 | mg/L | | | 12/28/23 14:37 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-395974/5
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Chloride | ND | | 1.0 | 0.36 | mg/L | | | 12/23/23 07:02 | 1 |
| Sulfate | ND | | 1.0 | 0.18 | mg/L | | | 12/23/23 07:02 | 1 |

Lab Sample ID: LCS 570-395974/6
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 50.0 | 48.0 | | mg/L | | 96 | 90 - 110 |
| Sulfate | 50.0 | 48.5 | | mg/L | | 97 | 90 - 110 |

Lab Sample ID: LCSD 570-395974/7
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Chloride | 50.0 | 48.0 | | mg/L | | 96 | 90 - 110 | 0 | 15 |
| Sulfate | 50.0 | 48.4 | | mg/L | | 97 | 90 - 110 | 0 | 15 |

Lab Sample ID: 570-165899-1 MS
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Outfall009_20231222_Comp
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Chloride | 2.0 | | 50.0 | 51.6 | | mg/L | | 99 | 80 - 120 |
| Sulfate | 3.4 | | 50.0 | 53.2 | | mg/L | | 100 | 80 - 120 |

Lab Sample ID: 570-165899-1 MSD
Matrix: Water
Analysis Batch: 395974

Client Sample ID: Outfall009_20231222_Comp
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Chloride | 2.0 | | 50.0 | 51.6 | | mg/L | | 99 | 80 - 120 | 0 | 20 |
| Sulfate | 3.4 | | 50.0 | 53.3 | | mg/L | | 100 | 80 - 120 | 0 | 20 |

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-396691/1-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 396691

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Antimony | ND | | 2.0 | 0.36 | ug/L | | 12/28/23 09:21 | 12/29/23 11:57 | 1 |
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | 12/28/23 09:21 | 12/29/23 11:57 | 1 |
| Copper | ND | | 2.0 | 0.32 | ug/L | | 12/28/23 09:21 | 12/29/23 11:57 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | 12/28/23 09:21 | 12/29/23 11:57 | 1 |
| Nickel | ND | | 2.0 | 0.17 | ug/L | | 12/28/23 09:21 | 12/29/23 11:57 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | 12/28/23 09:21 | 12/29/23 11:57 | 1 |
| Silver | ND | | 1.0 | 0.23 | ug/L | | 12/28/23 09:21 | 12/29/23 11:57 | 1 |
| Thallium | ND | | 1.0 | 0.11 | ug/L | | 12/28/23 09:21 | 12/29/23 11:57 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 570-396691/1-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 396691

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|----|-----|------|---|----------------|----------------|---------|
| Zinc | ND | | 20 | 2.8 | ug/L | | 12/28/23 09:21 | 12/29/23 11:57 | 1 |

Lab Sample ID: LCS 570-396691/2-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 396691

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Antimony | 80.0 | 75.6 | | ug/L | | 94 | 85 - 115 |
| Cadmium | 80.0 | 79.7 | | ug/L | | 100 | 85 - 115 |
| Copper | 80.0 | 79.7 | | ug/L | | 100 | 85 - 115 |
| Lead | 80.0 | 80.1 | | ug/L | | 100 | 85 - 115 |
| Nickel | 80.0 | 78.7 | | ug/L | | 98 | 85 - 115 |
| Selenium | 80.0 | 84.0 | | ug/L | | 105 | 85 - 115 |
| Silver | 80.0 | 79.3 | | ug/L | | 99 | 85 - 115 |
| Thallium | 80.0 | 78.9 | | ug/L | | 99 | 85 - 115 |
| Zinc | 80.0 | 77.5 | | ug/L | | 97 | 85 - 115 |

Lab Sample ID: LCSD 570-396691/3-A
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 396691

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-------|
| Antimony | 80.0 | 76.9 | | ug/L | | 96 | 85 - 115 | 2 | 20 |
| Cadmium | 80.0 | 78.9 | | ug/L | | 99 | 85 - 115 | 1 | 20 |
| Copper | 80.0 | 79.6 | | ug/L | | 99 | 85 - 115 | 0 | 20 |
| Lead | 80.0 | 79.2 | | ug/L | | 99 | 85 - 115 | 1 | 20 |
| Nickel | 80.0 | 78.7 | | ug/L | | 98 | 85 - 115 | 0 | 20 |
| Selenium | 80.0 | 81.3 | | ug/L | | 102 | 85 - 115 | 3 | 20 |
| Silver | 80.0 | 78.5 | | ug/L | | 98 | 85 - 115 | 1 | 20 |
| Thallium | 80.0 | 77.9 | | ug/L | | 97 | 85 - 115 | 1 | 20 |
| Zinc | 80.0 | 76.5 | | ug/L | | 96 | 85 - 115 | 1 | 20 |

Lab Sample ID: 570-165899-1 MS
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Outfall009_20231222_Comp
Prep Type: Total Recoverable
Prep Batch: 396691

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Antimony | 4.3 | | 80.0 | 42.1 | LN | ug/L | | 47 | 80 - 120 |
| Cadmium | 0.36 | J,DX | 80.0 | 78.4 | | ug/L | | 98 | 80 - 120 |
| Copper | 13 | | 80.0 | 90.1 | | ug/L | | 96 | 80 - 120 |
| Lead | 380 | | 80.0 | 465 | BB | ug/L | | 110 | 80 - 120 |
| Nickel | 13 | | 80.0 | 89.7 | | ug/L | | 96 | 80 - 120 |
| Selenium | 2.0 | | 80.0 | 64.0 | LN | ug/L | | 78 | 80 - 120 |
| Silver | 0.57 | J,DX | 80.0 | 78.9 | | ug/L | | 98 | 80 - 120 |
| Thallium | 0.20 | J,DX | 80.0 | 75.0 | | ug/L | | 94 | 80 - 120 |
| Zinc | 58 | | 80.0 | 130 | | ug/L | | 91 | 80 - 120 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 570-165899-1 MSD
Matrix: Water
Analysis Batch: 397364

Client Sample ID: Outfall009_20231222_Comp
Prep Type: Total Recoverable
Prep Batch: 396691

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec | RPD | Limit |
|----------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | | |
| Antimony | 4.3 | | 80.0 | 44.5 | LN | ug/L | | 50 | 80 - 120 | 5 | 20 |
| Cadmium | 0.36 | J,DX | 80.0 | 81.3 | | ug/L | | 101 | 80 - 120 | 4 | 20 |
| Copper | 13 | | 80.0 | 91.8 | | ug/L | | 99 | 80 - 120 | 2 | 20 |
| Lead | 380 | | 80.0 | 469 | BB | ug/L | | 116 | 80 - 120 | 1 | 20 |
| Nickel | 13 | | 80.0 | 91.8 | | ug/L | | 99 | 80 - 120 | 2 | 20 |
| Selenium | 2.0 | | 80.0 | 65.2 | LN | ug/L | | 79 | 80 - 120 | 2 | 20 |
| Silver | 0.57 | J,DX | 80.0 | 81.2 | | ug/L | | 101 | 80 - 120 | 3 | 20 |
| Thallium | 0.20 | J,DX | 80.0 | 77.6 | | ug/L | | 97 | 80 - 120 | 3 | 20 |
| Zinc | 58 | | 80.0 | 132 | | ug/L | | 93 | 80 - 120 | 1 | 20 |

Lab Sample ID: MB 570-397913/1-A
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Method Blank
Prep Type: Dissolved

| Analyte | MB | MB | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Antimony | 0.939 | J,DX | 2.0 | 0.36 | ug/L | | | 01/04/24 14:52 | 1 |
| Cadmium | ND | | 1.0 | 0.13 | ug/L | | | 01/04/24 14:52 | 1 |
| Copper | ND | | 2.0 | 0.32 | ug/L | | | 01/04/24 14:52 | 1 |
| Lead | ND | | 1.0 | 0.12 | ug/L | | | 01/04/24 14:52 | 1 |
| Nickel | ND | | 2.0 | 0.17 | ug/L | | | 01/04/24 14:52 | 1 |
| Selenium | ND | | 2.0 | 0.52 | ug/L | | | 01/04/24 14:52 | 1 |
| Silver | ND | | 1.0 | 0.23 | ug/L | | | 01/04/24 14:52 | 1 |
| Thallium | ND | | 1.0 | 0.11 | ug/L | | | 01/04/24 14:52 | 1 |
| Zinc | ND | | 20 | 2.8 | ug/L | | | 01/04/24 14:52 | 1 |

Lab Sample ID: LCS 570-397913/2-A
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

| Analyte | Spike Added | LCS | LCS | Unit | D | %Rec | %Rec | RPD | Limit |
|----------|-------------|--------|-----------|------|---|------|----------|-----|-------|
| | | Result | Qualifier | | | | Limits | | |
| Antimony | 80.0 | 71.3 | | ug/L | | 89 | 85 - 115 | | |
| Cadmium | 80.0 | 78.5 | | ug/L | | 98 | 85 - 115 | | |
| Copper | 80.0 | 80.6 | | ug/L | | 101 | 85 - 115 | | |
| Lead | 80.0 | 79.7 | | ug/L | | 100 | 85 - 115 | | |
| Nickel | 80.0 | 79.8 | | ug/L | | 100 | 85 - 115 | | |
| Selenium | 80.0 | 78.6 | | ug/L | | 98 | 85 - 115 | | |
| Silver | 80.0 | 79.0 | | ug/L | | 99 | 85 - 115 | | |
| Thallium | 80.0 | 79.9 | | ug/L | | 100 | 85 - 115 | | |
| Zinc | 80.0 | 74.6 | | ug/L | | 93 | 85 - 115 | | |

Lab Sample ID: LCSD 570-397913/3-A
Matrix: Water
Analysis Batch: 398534

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

| Analyte | Spike Added | LCSD | LCSD | Unit | D | %Rec | %Rec | RPD | Limit |
|----------|-------------|--------|-----------|------|---|------|----------|-----|-------|
| | | Result | Qualifier | | | | Limits | | |
| Antimony | 80.0 | 77.5 | | ug/L | | 97 | 85 - 115 | 8 | 20 |
| Cadmium | 80.0 | 78.5 | | ug/L | | 98 | 85 - 115 | 0 | 20 |
| Copper | 80.0 | 79.9 | | ug/L | | 100 | 85 - 115 | 1 | 20 |
| Lead | 80.0 | 78.2 | | ug/L | | 98 | 85 - 115 | 2 | 20 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 570-397913/3-A
 Matrix: Water
 Analysis Batch: 398534

Client Sample ID: Lab Control Sample Dup
 Prep Type: Dissolved

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Nickel | 80.0 | 80.0 | | ug/L | | 100 | 85 - 115 | 0 | 20 |
| Selenium | 80.0 | 77.6 | | ug/L | | 97 | 85 - 115 | 1 | 20 |
| Silver | 80.0 | 79.4 | | ug/L | | 99 | 85 - 115 | 0 | 20 |
| Thallium | 80.0 | 78.3 | | ug/L | | 98 | 85 - 115 | 2 | 20 |
| Zinc | 80.0 | 74.7 | | ug/L | | 93 | 85 - 115 | 0 | 20 |

Lab Sample ID: 570-165899-2 MS
 Matrix: Water
 Analysis Batch: 398831

Client Sample ID: Outfall009_20231222_Comp_F
 Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Antimony | 3.2 | BU MB | 80.0 | 69.8 | BU | ug/L | | 83 | 80 - 120 |
| Cadmium | ND | BU | 80.0 | 75.3 | BU | ug/L | | 94 | 80 - 120 |
| Copper | 2.0 | BU | 80.0 | 78.4 | BU | ug/L | | 96 | 80 - 120 |
| Lead | 19 | BU | 80.0 | 94.2 | BU | ug/L | | 94 | 80 - 120 |
| Nickel | 1.3 | J,DX BU | 80.0 | 76.3 | BU | ug/L | | 94 | 80 - 120 |
| Selenium | ND | BU | 80.0 | 74.4 | BU | ug/L | | 93 | 80 - 120 |
| Silver | ND | BU | 80.0 | 76.2 | BU | ug/L | | 95 | 80 - 120 |
| Thallium | ND | BU | 80.0 | 75.4 | BU | ug/L | | 94 | 80 - 120 |
| Zinc | 3.2 | J,DX BU | 80.0 | 74.3 | BU | ug/L | | 89 | 80 - 120 |

Lab Sample ID: 570-165899-2 MSD
 Matrix: Water
 Analysis Batch: 398831

Client Sample ID: Outfall009_20231222_Comp_F
 Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Antimony | 3.2 | BU MB | 80.0 | 70.9 | BU | ug/L | | 85 | 80 - 120 | 1 | 20 |
| Cadmium | ND | BU | 80.0 | 76.2 | BU | ug/L | | 95 | 80 - 120 | 1 | 20 |
| Copper | 2.0 | BU | 80.0 | 80.1 | BU | ug/L | | 98 | 80 - 120 | 2 | 20 |
| Lead | 19 | BU | 80.0 | 96.3 | BU | ug/L | | 97 | 80 - 120 | 2 | 20 |
| Nickel | 1.3 | J,DX BU | 80.0 | 78.0 | BU | ug/L | | 96 | 80 - 120 | 2 | 20 |
| Selenium | ND | BU | 80.0 | 73.9 | BU | ug/L | | 92 | 80 - 120 | 1 | 20 |
| Silver | ND | BU | 80.0 | 77.0 | BU | ug/L | | 96 | 80 - 120 | 1 | 20 |
| Thallium | ND | BU | 80.0 | 77.0 | BU | ug/L | | 96 | 80 - 120 | 2 | 20 |
| Zinc | 3.2 | J,DX BU | 80.0 | 74.9 | BU | ug/L | | 90 | 80 - 120 | 1 | 20 |

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 570-399987/1-A
 Matrix: Water
 Analysis Batch: 400677

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 399987

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.20 | 0.12 | ug/L | | 01/10/24 13:26 | 01/12/24 12:03 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 570-399987/2-A
 Matrix: Water
 Analysis Batch: 400677

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 399987

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Mercury | 8.00 | 6.98 | | ug/L | | 87 | 85 - 115 |

Lab Sample ID: LCSD 570-399987/3-A
 Matrix: Water
 Analysis Batch: 400677

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 399987

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Mercury | 8.00 | 7.29 | | ug/L | | 91 | 85 - 115 | 4 | 10 |

Lab Sample ID: 570-165899-1 MS
 Matrix: Water
 Analysis Batch: 400677

Client Sample ID: Outfall009_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 399987

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Mercury | ND | | 8.00 | 8.08 | | ug/L | | 101 | 85 - 115 |

Lab Sample ID: 570-165899-1 MSD
 Matrix: Water
 Analysis Batch: 400677

Client Sample ID: Outfall009_20231222_Comp
 Prep Type: Total/NA
 Prep Batch: 399987

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Mercury | ND | | 8.00 | 8.05 | | ug/L | | 101 | 85 - 115 | 0 | 10 |

Lab Sample ID: 570-165899-2 MS
 Matrix: Water
 Analysis Batch: 400677

Client Sample ID: Outfall009_20231222_Comp_F
 Prep Type: Dissolved
 Prep Batch: 399987

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Mercury | ND | BU | 8.00 | 6.74 | BU LN | ug/L | | 84 | 85 - 115 |

Lab Sample ID: 570-165899-2 MSD
 Matrix: Water
 Analysis Batch: 400677

Client Sample ID: Outfall009_20231222_Comp_F
 Prep Type: Dissolved
 Prep Batch: 399987

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Mercury | ND | BU | 8.00 | 6.79 | BU | ug/L | | 85 | 85 - 115 | 1 | 10 |

Method: Kelada 01 - Cyanide, Total, Acid Dissociable and Thiocyanate

Lab Sample ID: MB 570-398571/11
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Cyanide, Total | ND | | 5.0 | 2.5 | ug/L | | | 01/04/24 14:13 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: Kelada 01 - Cyanide, Total, Acid Dissociable and Thiocyanate (Continued)

Lab Sample ID: LCS 570-398571/12
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|------------|---------------|------|---|------|-------------|
| Cyanide, Total | 250 | 245 | | ug/L | | 98 | 90 - 110 |

Lab Sample ID: LCSD 570-398571/13
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Cyanide, Total | 250 | 246 | | ug/L | | 98 | 90 - 110 | 0 | 20 |

Lab Sample ID: MRL 570-398571/10
 Matrix: Water
 Analysis Batch: 398571

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|------------|---------------|------|---|------|-------------|
| Cyanide, Total | 5.00 | 5.48 | | ug/L | | 110 | 50 - 150 |

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-396762/1
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|----|-----|------|---|----------|----------------|---------|
| Total Dissolved Solids | ND | | 10 | 8.7 | mg/L | | | 12/28/23 12:15 | 1 |

Lab Sample ID: LCS 570-396762/2
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Dissolved Solids | 1000 | 1040 | | mg/L | | 104 | 84 - 108 |

Lab Sample ID: LCSD 570-396762/3
 Matrix: Water
 Analysis Batch: 396762

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Total Dissolved Solids | 1000 | 1060 | | mg/L | | 106 | 84 - 108 | 1 | 10 |

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-396848/1
 Matrix: Water
 Analysis Batch: 396848

Client Sample ID: Method Blank
 Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Suspended Solids | ND | | 1.0 | 0.80 | mg/L | | | 12/28/23 14:37 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 570-396848/2
Matrix: Water
Analysis Batch: 396848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Suspended Solids | 100 | 98.0 | | mg/L | | 98 | 77 - 116 |

Lab Sample ID: LCSD 570-396848/3
Matrix: Water
Analysis Batch: 396848

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Total Suspended Solids | 100 | 100 | | mg/L | | 100 | 77 - 116 | 2 | 10 |

Lab Sample ID: 570-165899-1 DU
Matrix: Water
Analysis Batch: 396848

Client Sample ID: Outfall009_20231222_Comp
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|------------------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Total Suspended Solids | 260 | | 257 | | mg/L | | 0.4 | 10 |

QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

HPLC/IC

Analysis Batch: 395974

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|--------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | 300.0 | |
| MB 570-395974/5 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 570-395974/6 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 570-395974/7 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 570-165899-1 MS | Outfall009_20231222_Comp | Total/NA | Water | 300.0 | |
| 570-165899-1 MSD | Outfall009_20231222_Comp | Total/NA | Water | 300.0 | |

Analysis Batch: 399041

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------|-----------|--------|-------------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | NO2NO3 Calc | |

Metals

Prep Batch: 396691

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-------------------|--------|--------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total Recoverable | Water | 200.8 | |
| MB 570-396691/1-A | Method Blank | Total Recoverable | Water | 200.8 | |
| LCS 570-396691/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 | |
| LCSD 570-396691/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 | |
| 570-165899-1 MS | Outfall009_20231222_Comp | Total Recoverable | Water | 200.8 | |
| 570-165899-1 MSD | Outfall009_20231222_Comp | Total Recoverable | Water | 200.8 | |

Analysis Batch: 397364

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-------------------|--------|--------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total Recoverable | Water | 200.8 | 396691 |
| MB 570-396691/1-A | Method Blank | Total Recoverable | Water | 200.8 | 396691 |
| LCS 570-396691/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 | 396691 |
| LCSD 570-396691/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 | 396691 |
| 570-165899-1 MS | Outfall009_20231222_Comp | Total Recoverable | Water | 200.8 | 396691 |
| 570-165899-1 MSD | Outfall009_20231222_Comp | Total Recoverable | Water | 200.8 | 396691 |

Filtration Batch: 397913

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|------------|------------|
| 570-165899-2 | Outfall009_20231222_Comp_F | Dissolved | Water | Filtration | |
| MB 570-397913/1-A | Method Blank | Dissolved | Water | Filtration | |
| LCS 570-397913/2-A | Lab Control Sample | Dissolved | Water | Filtration | |
| LCSD 570-397913/3-A | Lab Control Sample Dup | Dissolved | Water | Filtration | |
| 570-165899-2 MS | Outfall009_20231222_Comp_F | Dissolved | Water | Filtration | |
| 570-165899-2 MSD | Outfall009_20231222_Comp_F | Dissolved | Water | Filtration | |

Analysis Batch: 398534

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| MB 570-397913/1-A | Method Blank | Dissolved | Water | 200.8 | 397913 |
| LCS 570-397913/2-A | Lab Control Sample | Dissolved | Water | 200.8 | 397913 |
| LCSD 570-397913/3-A | Lab Control Sample Dup | Dissolved | Water | 200.8 | 397913 |

Analysis Batch: 398831

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|----------------------------|-----------|--------|--------|------------|
| 570-165899-2 | Outfall009_20231222_Comp_F | Dissolved | Water | 200.8 | 397913 |
| 570-165899-2 MS | Outfall009_20231222_Comp_F | Dissolved | Water | 200.8 | 397913 |
| 570-165899-2 MSD | Outfall009_20231222_Comp_F | Dissolved | Water | 200.8 | 397913 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Metals

Filtration Batch: 399973

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|----------------------------|-----------|--------|------------|------------|
| 570-165899-2 | Outfall009_20231222_Comp_F | Dissolved | Water | Filtration | |
| 570-165899-2 MS | Outfall009_20231222_Comp_F | Dissolved | Water | Filtration | |
| 570-165899-2 MSD | Outfall009_20231222_Comp_F | Dissolved | Water | Filtration | |

Prep Batch: 399987

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | 245.1 | |
| 570-165899-2 | Outfall009_20231222_Comp_F | Dissolved | Water | 245.1 | 399973 |
| MB 570-399987/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 570-399987/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 570-399987/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 570-165899-1 MS | Outfall009_20231222_Comp | Total/NA | Water | 245.1 | |
| 570-165899-1 MSD | Outfall009_20231222_Comp | Total/NA | Water | 245.1 | |
| 570-165899-2 MS | Outfall009_20231222_Comp_F | Dissolved | Water | 245.1 | 399973 |
| 570-165899-2 MSD | Outfall009_20231222_Comp_F | Dissolved | Water | 245.1 | 399973 |

Analysis Batch: 400677

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------|-----------|--------|--------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | 245.1 | 399987 |
| 570-165899-2 | Outfall009_20231222_Comp_F | Dissolved | Water | 245.1 | 399987 |
| MB 570-399987/1-A | Method Blank | Total/NA | Water | 245.1 | 399987 |
| LCS 570-399987/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 399987 |
| LCSD 570-399987/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 399987 |
| 570-165899-1 MS | Outfall009_20231222_Comp | Total/NA | Water | 245.1 | 399987 |
| 570-165899-1 MSD | Outfall009_20231222_Comp | Total/NA | Water | 245.1 | 399987 |
| 570-165899-2 MS | Outfall009_20231222_Comp_F | Dissolved | Water | 245.1 | 399987 |
| 570-165899-2 MSD | Outfall009_20231222_Comp_F | Dissolved | Water | 245.1 | 399987 |

General Chemistry

Analysis Batch: 396762

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|----------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | SM 2540C | |
| MB 570-396762/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 570-396762/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 570-396762/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |

Analysis Batch: 396848

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------------|-----------|--------|----------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | SM 2540D | |
| MB 570-396848/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 570-396848/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 570-396848/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |
| 570-165899-1 DU | Outfall009_20231222_Comp | Total/NA | Water | SM 2540D | |

Analysis Batch: 398571

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | Kelada 01 | |
| MB 570-398571/11 | Method Blank | Total/NA | Water | Kelada 01 | |
| LCS 570-398571/12 | Lab Control Sample | Total/NA | Water | Kelada 01 | |
| LCSD 570-398571/13 | Lab Control Sample Dup | Total/NA | Water | Kelada 01 | |

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QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

General Chemistry (Continued)

Analysis Batch: 398571 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| MRL 570-398571/10 | Lab Control Sample | Total/NA | Water | Kelada 01 | |

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Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Client Sample ID: Outfall009_20231222_Comp

Lab Sample ID: 570-165899-1

Date Collected: 12/22/23 08:25

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Total/NA | Analysis | 300.0 | | 1 | 4 mL | 4 mL | 395974 | 12/23/23 09:51 | UIP1 | EET CAL 4 |
| Instrument ID: IC9 | | | | | | | | | | |
| Total/NA | Analysis | NO2NO3 Calc | | 1 | | | 399041 | 12/23/23 09:51 | URMH | EET CAL 4 |
| Instrument ID: IC9 | | | | | | | | | | |
| Total Recoverable | Prep | 200.8 | | | 50 mL | 50 mL | 396691 | 12/28/23 09:21 | RL6Q | EET CAL 4 |
| Total Recoverable | Analysis | 200.8 | | 1 | | | 397364 | 12/29/23 11:13 | P1R | EET CAL 4 |
| Instrument ID: ICPMS10 | | | | | | | | | | |
| Total/NA | Prep | 245.1 | | | 25 g | 50 mL | 399987 | 01/10/24 13:26 | ECX6 | EET CAL 4 |
| Total/NA | Analysis | 245.1 | | 1 | | | 400677 | 01/12/24 12:09 | RL6Q | EET CAL 4 |
| Instrument ID: HG8 | | | | | | | | | | |
| Total/NA | Analysis | Kelada 01 | | 1 | 8 mL | 8 mL | 398571 | 01/04/24 15:46 | GG0B | EET CAL 4 |
| Instrument ID: LACHAT01 | | | | | | | | | | |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 1000 mL | 396762 | 12/28/23 13:20 | GG0B | EET CAL 4 |
| Instrument ID: BAL100 | | | | | | | | | | |
| Total/NA | Analysis | SM 2540D | | 1 | 100 mL | 1000 mL | 396848 | 12/28/23 14:37 | JB | EET CAL 4 |
| Instrument ID: NOEQUIP | | | | | | | | | | |

Client Sample ID: Outfall009_20231222_Comp_F

Lab Sample ID: 570-165899-2

Date Collected: 12/22/23 08:25

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|------------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-----------|
| Dissolved | Filtration | Filtration | | | 50 mL | 50 mL | 397913 | 01/03/24 08:42 | JP8N | EET CAL 4 |
| Dissolved | Analysis | 200.8 | | 1 | | | 398831 | 01/05/24 14:10 | Y2WS | EET CAL 4 |
| Instrument ID: ICPMS10 | | | | | | | | | | |
| Dissolved | Filtration | Filtration | | | 25 mL | 25 mL | 399973 | 01/10/24 12:41 | JP8N | EET CAL 4 |
| Dissolved | Prep | 245.1 | | | 25 g | 50 mL | 399987 | 01/10/24 13:26 | ECX6 | EET CAL 4 |
| Dissolved | Analysis | 245.1 | | 1 | | | 400677 | 01/12/24 12:15 | RL6Q | EET CAL 4 |
| Instrument ID: HG8 | | | | | | | | | | |

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|------------|---|-----------------------|-----------------|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

| Method | Method Description | Protocol | Laboratory |
|-------------|--|----------|------------|
| 300.0 | Anions, Ion Chromatography | EPA | EET CAL 4 |
| NO2NO3 Calc | Nitrogen, Nitrate-Nitrite | EPA | EET CAL 4 |
| 200.8 | Metals (ICP/MS) | EPA | EET CAL 4 |
| 245.1 | Mercury (CVAA) | EPA | EET CAL 4 |
| Kelada 01 | Cyanide, Total, Acid Dissociable and Thiocyanate | EPA | EET CAL 4 |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET CAL 4 |
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET CAL 4 |
| 200.8 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 245.1 | Preparation, Mercury | EPA | EET CAL 4 |
| Filtration | Sample Filtration | None | EET CAL 4 |

Protocol References:

- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

- EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-1

| <u>Lab Sample ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Collected</u> | <u>Received</u> |
|----------------------|----------------------------|---------------|------------------|-----------------|
| 570-165899-1 | Outfall009_20231222_Comp | Water | 12/22/23 08:25 | 12/22/23 17:30 |
| 570-165899-2 | Outfall009_20231222_Comp_F | Water | 12/22/23 08:25 | 12/22/23 17:30 |

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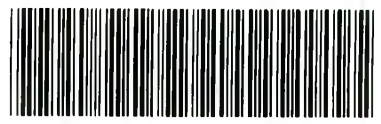
CHAIN OF CUSTODY FORM

| | | | | | | | | | | | | | |
|---|--|---|-----------------------------------|--|----------------------|---|--|---|--------------------------------|--|--|-----------------------|----------|
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall (003-007, C09, 010) Outfall 009 Comp | ANALYSIS REQUIRED | | | | | | | | | | | |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | Total Recoverable Metals: (E200.8): Ni, Zn (E200.9): Ag, Cd, Cu, Pb, Sb, Se, Ti | TCDD (end all congeners) (E1613B) | Cr, SO ₄ , NO ₃ , NO ₂ -N (300) | TDS (SM2540C/E160.1) | Total Dissolved Metals: (E200.8): Ni, Zn (E200.9): Ag, Cd, Cu, Pb, Sb, Se, Ti | Gross Alpha (E900.0), Gross Beta (E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | CHRONIC TOXICITY - CARCINOGENS (E24.921.1B, 02, 01a), ABC Labs - Ventura, CA | Cyanide (SM4500-CN-E / E335.2) | Total Recoverable Metals: Mercury (E245.1) | Total Dissolved Metals: Mercury (E245.1) | TSS (180.2 (SM2540D)) | Comments |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement 2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | |
| Sampler: | | | | | | | | | | | | | |

| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MSMSD | Total Recoverable Metals: (E200.8): Ni, Zn (E200.9): Ag, Cd, Cu, Pb, Sb, Se, Ti | TCDD (end all congeners) (E1613B) | Cr, SO ₄ , NO ₃ , NO ₂ -N (300) | TDS (SM2540C/E160.1) | Total Dissolved Metals: (E200.8): Ni, Zn (E200.9): Ag, Cd, Cu, Pb, Sb, Se, Ti | Gross Alpha (E900.0), Gross Beta (E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | CHRONIC TOXICITY - CARCINOGENS (E24.921.1B, 02, 01a), ABC Labs - Ventura, CA | Cyanide (SM4500-CN-E / E335.2) | Total Recoverable Metals: Mercury (E245.1) | Total Dissolved Metals: Mercury (E245.1) | TSS (180.2 (SM2540D)) | Comments | | | | |
|--------------------|--------------------------------|---------------------|---------------|--------------------|------------|------------------|----------|-------|---|-----------------------------------|--|----------------------|---|--|---|--------------------------------|--|--|-----------------------|----------|--|--|---|--|
| Outfall 009 | Outfall009_20231222_Comp | 12/22/2023 10825 | WM | 500 mL Poly | 3 | HNO ₃ | 95 | Yes | X | | | | | | | | X | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | X | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 145 | No | | | X | | | | | | | | | | | | 48 hours Holding Time NO ₃ & NO ₂ | |
| | | | WM | 500 mL Poly | 1 | None | 155 | No | | | | X | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 1 | NaOH | 220 | No | | | | | | | | | | | X | | | | | |
| | | | WM | 2.5 Gal Cube | 1 | None | 225 | No | | | | | | | | | | | | | | | | Unfiltered and unpreserved analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD. |
| | | | WM | 1 L Glass Amber | 1 | None | 230 | No | | | | | | | | X | | | | | | | | Only test if first or second discharge events of the year. Deliver to ABC Labs in Ventura, CA. |
| | | | WM | 1 Gal Cube | 3 | None | 235 | No | | | | | | | | | | | | | | | | |
| | | | WM | 1 L Poly | 1 | None | 185 | No | | | | | | | X | | | | | | | X | | Filter and preserve w/in 24hrs of receipt at lab |
| | | | WM | 1L Poly | 1 | None | 205 | Yes | | | | | | | | X | | | | | | | | |
| | Outfall009_20231222_Comp_F | 12/22/2023 10825 | WM | borosilicate vials | 2 | None | 320 | No | | | | | | | | | | | | X | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. Filter and preserve w/in 24hrs of receipt at lab. | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | | H | | | | | | | | | | | | Hold | |
| | Outfall009_20231222_Comp_Extra | 12/22/2023 10825 | WM | 500 mL Poly | 2 | None | 145 | No | | | H | | | | | | | | | | | | Hold | |

Legend: EF=Expert Panel, R=Routine

| | | |
|---|--|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/2023/1252 Company: H&A | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> X 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/23 1730 Company: EC | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 | Sample Integrity: (Check) |



570-165899 Chain of Custody

1.3/1.2 1.6/2.0 SC14

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165899-1

Login Number: 165899

List Source: Eurofins Calscience

List Number: 1

Creator: Patel, Virendra

| Question | Answer | Comment |
|---|--------|-------------------------------------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | False | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 2/1/2024 6:53:10 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 009 - Comp

JOB NUMBER

570-165899-2

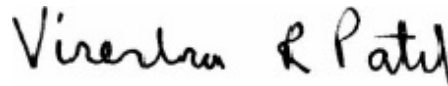
Eurofins Calscience

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Qualifiers

Dioxin

| Qualifier | Qualifier Description |
|-----------|---|
| J,DX | Estimated value; value < lowest standard (MQL), but >than MDL |
| MB | Analyte present in the method blank |
| q | The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| ♠ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Job ID: 570-165899-2

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Job Narrative 570-165899-2

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7° C and 2.0° C.

Receipt Exceptions

The reference method requires samples to have a pH of <2. The following samples were received with a pH of 7 :

Outfall009_20231222_Comp (570-165899-1), Outfall009_20231222_Comp (570-165899-1[MS]), Outfall009_20231222_Comp (570-165899-1[MSD]), Outfall009_20231222_Comp_F (570-165899-2), Outfall009_20231222_Comp_F (570-165899-2[MS]), Outfall009_20231222_Comp_F (570-165899-2[MSD]), Outfall009_20231222_Comp_Extra (570-165899-3), Outfall002_20231222_Comp (570-165901-1), Outfall002_20231222_Comp (570-165901-1[MS]), Outfall002_20231222_Comp (570-165901-1[MSD]), Outfall002_20231222_Comp_Extra (570-165901-2), Outfall002_20231222_Comp_F (570-165901-3), Outfall002_20231222_Comp_F (570-165901-3[MS]), Outfall002_20231222_Comp_F (570-165901-3[MSD]), Outfall008_20231222_Comp (570-165909-1), Outfall008_20231222_Comp (570-165909-1[MS]), Outfall008_20231222_Comp (570-165909-1[MSD]), Outfall008_20231222_Comp_F (570-165909-2), Outfall008_20231222_Comp_F (570-165909-2[MS]), Outfall008_20231222_Comp_F (570-165909-2[MSD]), Outfall008_20231222_Comp_Extra (570-165909-3), Outfall001_20231222_Comp (570-165916-1), Outfall001_20231222_Comp (570-165916-1[MS]), Outfall001_20231222_Comp (570-165916-1[MSD]), Outfall001_20231222_Comp_Extra (570-165916-2), Outfall001_20231222_Comp_F (570-165916-3), Outfall001_20231222_Comp_F (570-165916-3[MS]) and Outfall001_20231222_Comp_F (570-165916-3[MSD]). The samples were adjusted to the appropriate pH in the laboratory.

The number of containers for the following samples did not match the information listed on the Chain-of-Custody (COC): Outfall009_20231222_Comp (570-165899-1). Received only one 500 ml w/HNO3 container, while the COC lists 3.

Dioxin

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dioxin Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Client Sample ID: Outfall009_20231222_Comp

Lab Sample ID: 570-165899-1

| Analyte | Result | Qualifier | RL | EDL | Unit | Dil Fac | D | Method | Prep Type |
|---------------------|-----------|-----------|-----------|-----------|------|---------|---|--------|-----------|
| 2,3,7,8-TCDD | 0.0000019 | J,DX q | 0.0000099 | 0.0000006 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,7,8-PeCDD | 0.0000079 | J,DX q | 0.000049 | 0.0000005 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,7,8-PeCDF | 0.0000039 | J,DX | 0.000049 | 0.0000005 | ug/L | 1 | | 1613B | Total/NA |
| 2,3,4,7,8-PeCDF | 0.0000022 | J,DX | 0.000049 | 0.0000005 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,4,7,8-HxCDD | 0.0000025 | J,DX q | 0.000049 | 0.0000013 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,6,7,8-HxCDD | 0.0000057 | J,DX | 0.000049 | 0.0000014 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,7,8,9-HxCDD | 0.0000041 | J,DX | 0.000049 | 0.0000012 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,4,7,8-HxCDF | 0.000014 | J,DX | 0.000049 | 0.0000014 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,6,7,8-HxCDF | 0.0000044 | J,DX q | 0.000049 | 0.0000012 | ug/L | 1 | | 1613B | Total/NA |
| 2,3,4,6,7,8-HxCDF | 0.0000024 | J,DX q | 0.000049 | 0.0000012 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,4,6,7,8-HpCDD | 0.00013 | MB | 0.000049 | 0.0000039 | ug/L | 1 | | 1613B | Total/NA |
| 1,2,3,4,6,7,8-HpCDF | 0.000037 | J,DX MB | 0.000049 | 0.0000068 | ug/L | 1 | | 1613B | Total/NA |
| OCDD | 0.0020 | MB | 0.000099 | 0.0000085 | ug/L | 1 | | 1613B | Total/NA |
| OCDF | 0.000064 | J,DX MB | 0.000099 | 0.0000029 | ug/L | 1 | | 1613B | Total/NA |
| Total TCDD | 0.0000019 | J,DX q | 0.0000099 | 0.0000006 | ug/L | 1 | | 1613B | Total/NA |
| Total TCDF | 0.0000019 | J,DX q | 0.0000099 | 0.0000003 | ug/L | 1 | | 1613B | Total/NA |
| Total PeCDD | 0.0000079 | J,DX q | 0.000049 | 0.0000005 | ug/L | 1 | | 1613B | Total/NA |
| Total PeCDF | 0.0000084 | J,DX | 0.000049 | 0.0000005 | ug/L | 1 | | 1613B | Total/NA |
| Total HxCDD | 0.000024 | J,DX q | 0.000049 | 0.0000013 | ug/L | 1 | | 1613B | Total/NA |
| Total HxCDF | 0.000038 | J,DX q | 0.000049 | 0.0000013 | ug/L | 1 | | 1613B | Total/NA |
| Total HpCDD | 0.00024 | MB | 0.000049 | 0.0000039 | ug/L | 1 | | 1613B | Total/NA |
| Total HpCDF | 0.000075 | J,DX MB | 0.000049 | 0.0000070 | ug/L | 1 | | 1613B | Total/NA |

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS)

Client Sample ID: Outfall009_20231222_Comp

Date Collected: 12/22/23 08:25

Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1

Matrix: Water

| Analyte | Result | Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|------------------|------------------|---------------|-----------|------|---|-----------------|-----------------|----------------|
| 2,3,7,8-TCDD | 0.0000019 | J,DX q | 0.0000099 | 0.0000006 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 2,3,7,8-TCDF | ND | | 0.0000099 | 0.0000003 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,7,8-PeCDD | 0.00000079 | J,DX q | 0.000049 | 0.0000005 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,7,8-PeCDF | 0.0000039 | J,DX | 0.000049 | 0.0000005 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 2,3,4,7,8-PeCDF | 0.0000022 | J,DX | 0.000049 | 0.0000005 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,4,7,8-HxCDD | 0.0000025 | J,DX q | 0.000049 | 0.0000013 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,6,7,8-HxCDD | 0.0000057 | J,DX | 0.000049 | 0.0000014 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,7,8,9-HxCDD | 0.0000041 | J,DX | 0.000049 | 0.0000012 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,4,7,8-HxCDF | 0.000014 | J,DX | 0.000049 | 0.0000014 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,6,7,8-HxCDF | 0.0000044 | J,DX q | 0.000049 | 0.0000012 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,7,8,9-HxCDF | ND | | 0.000049 | 0.0000011 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 2,3,4,6,7,8-HxCDF | 0.0000024 | J,DX q | 0.000049 | 0.0000012 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,4,6,7,8-HpCDD | 0.00013 | MB | 0.000049 | 0.0000039 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,4,6,7,8-HpCDF | 0.000037 | J,DX MB | 0.000049 | 0.0000068 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 1,2,3,4,7,8,9-HpCDF | ND | | 0.000049 | 0.0000072 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| OCDD | 0.0020 | MB | 0.000099 | 0.0000085 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| OCDF | 0.000064 | J,DX MB | 0.000099 | 0.0000029 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| Total TCDD | 0.0000019 | J,DX q | 0.0000099 | 0.0000006 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| Total TCDF | 0.0000019 | J,DX q | 0.0000099 | 0.0000003 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| Total PeCDD | 0.00000079 | J,DX q | 0.000049 | 0.0000005 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| Total PeCDF | 0.0000084 | J,DX | 0.000049 | 0.0000005 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| Total HxCDD | 0.000024 | J,DX q | 0.000049 | 0.0000013 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| Total HxCDF | 0.000038 | J,DX q | 0.000049 | 0.0000013 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| Total HpCDD | 0.00024 | MB | 0.000049 | 0.0000039 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| Total HpCDF | 0.000075 | J,DX MB | 0.000049 | 0.0000070 | ug/L | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| Isotope Dilution | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 13C-2,3,7,8-TCDD | 41 | | 25 - 164 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-2,3,7,8-TCDF | 37 | | 24 - 169 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-1,2,3,7,8-PeCDD | 49 | | 25 - 181 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-1,2,3,7,8-PeCDF | 36 | | 24 - 185 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-2,3,4,7,8-PeCDF | 34 | | 21 - 178 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-1,2,3,4,7,8-HxCDD | 43 | | 32 - 141 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-1,2,3,6,7,8-HxCDD | 41 | | 28 - 130 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-1,2,3,4,7,8-HxCDF | 43 | | 26 - 152 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-1,2,3,6,7,8-HxCDF | 41 | | 26 - 123 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-1,2,3,7,8,9-HxCDF | 41 | | 29 - 147 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-2,3,4,6,7,8-HxCDF | 38 | | 28 - 136 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDD | 36 | | 23 - 140 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDF | 34 | | 28 - 143 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-1,2,3,4,7,8,9-HpCDF | 34 | | 26 - 138 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-OCDD | 29 | | 17 - 157 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |
| 13C-OCDF | 30 | | 17 - 157 | | | | 01/19/24 08:46 | 01/30/24 12:02 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

| <u>Surrogate</u> | <u>%Recovery</u> | <u>Qualifier</u> | <u>Limits</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Dil Fac</u> |
|--------------------|------------------|------------------|---------------|-----------------|-----------------|----------------|
| 37Cl4-2,3,7,8-TCDD | 77 | | 35 - 197 | 01/19/24 08:46 | 01/30/24 12:02 | 1 |

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Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | 37TCDD (35-197) |
|-------------------|--------------------------|--------------------|
| 570-165899-1 | Outfall009_20231222_Comp | 77 |
| MB 320-734694/1-A | Method Blank | 87 |

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | 37TCDD (31-191) |
|---------------------|------------------------|--------------------|
| LCS 320-734694/2-A | Lab Control Sample | 89 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 88 |

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCDD (25-164) | TCDF (24-169) | PeCDD (25-181) | PeCDF (24-185) | PeCF (21-178) | HxCDD (32-141) | HxDD (28-130) | HxCDF (26-152) |
|-------------------|--------------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| 570-165899-1 | Outfall009_20231222_Comp | 41 | 37 | 49 | 36 | 34 | 43 | 41 | 43 |
| MB 320-734694/1-A | Method Blank | 60 | 59 | 72 | 57 | 56 | 59 | 62 | 60 |

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | HxDF (26-123) | HxCF (29-147) | 13CHxCF (28-136) | HpCDD (23-140) | HpCDF (28-143) | HpCDF2 (26-138) | OCDD (17-157) | OCDF (17-157) |
|-------------------|--------------------------|------------------|------------------|---------------------|-------------------|-------------------|--------------------|------------------|------------------|
| 570-165899-1 | Outfall009_20231222_Comp | 41 | 41 | 38 | 36 | 34 | 34 | 29 | 30 |
| MB 320-734694/1-A | Method Blank | 62 | 60 | 63 | 56 | 55 | 53 | 46 | 49 |

Surrogate Legend

- TCDD = 13C-2,3,7,8-TCDD
- TCDF = 13C-2,3,7,8-TCDF
- PeCDD = 13C-1,2,3,7,8-PeCDD
- PeCDF = 13C-1,2,3,7,8-PeCDF
- PeCF = 13C-2,3,4,7,8-PeCDF
- HxCDD = 13C-1,2,3,4,7,8-HxCDD
- HxDD = 13C-1,2,3,6,7,8-HxCDD
- HxCDF = 13C-1,2,3,4,7,8-HxCDF
- HxDF = 13C-1,2,3,6,7,8-HxCDF
- HxCF = 13C-1,2,3,7,8,9-HxCDF
- 13CHxCF = 13C-2,3,4,6,7,8-HxCDF
- HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
- HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
- HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
- OCDD = 13C-OCDD
- OCDF = 13C-OCDF

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TCDD (20-175) | TCDF (22-152) | PeCDD (21-227) | PeCDF (21-192) | PeCF (13-328) | HxCDD (21-193) | HxDD (25-163) | HxCDF (19-202) |
|---------------------|------------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| LCS 320-734694/2-A | Lab Control Sample | 57 | 57 | 65 | 51 | 50 | 55 | 57 | 57 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 55 | 54 | 67 | 54 | 51 | 56 | 58 | 57 |

Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | HxDF (21-159) | HxCF (17-205) | 13CHxCF (22-176) | HpCDD (26-166) | HpCDF (21-158) | HpCDF2 (20-186) | OCDD (13-199) | OCDF (13-199) |
|---------------------|------------------------|------------------|------------------|---------------------|-------------------|-------------------|--------------------|------------------|------------------|
| LCS 320-734694/2-A | Lab Control Sample | 58 | 57 | 56 | 54 | 51 | 51 | 42 | 44 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | 58 | 59 | 57 | 56 | 54 | 54 | 44 | 47 |

Surrogate Legend

- TCDD = 13C-2,3,7,8-TCDD
- TCDF = 13C-2,3,7,8-TCDF
- PeCDD = 13C-1,2,3,7,8-PeCDD
- PeCDF = 13C-1,2,3,7,8-PeCDF
- PeCF = 13C-2,3,4,7,8-PeCDF
- HxCDD = 13C-1,2,3,4,7,8-HxCDD
- HxDD = 13C-1,2,3,6,7,8-HxCDD
- HxCDF = 13C-1,2,3,4,7,8-HxCDF
- HxDF = 13C-1,2,3,6,7,8-HxCDF

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.

Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

HxCDF = 13C-1,2,3,7,8,9-HxCDF

13CHxCDF = 13C-2,3,4,6,7,8-HxCDF

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD

HpCDF = 13C-1,2,3,4,6,7,8-HpCDF

HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF

OCDD = 13C-OCDD

OCDF = 13C-OCDF

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-734694/1-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 734694

| Isotope Dilution | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 13C-1,2,3,7,8-PeCDF | 57 | | 24 - 185 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-2,3,4,7,8-PeCDF | 56 | | 21 - 178 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8-HxCDD | 59 | | 32 - 141 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,6,7,8-HxCDD | 62 | | 28 - 130 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8-HxCDF | 60 | | 26 - 152 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,6,7,8-HxCDF | 62 | | 26 - 123 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,7,8,9-HxCDF | 60 | | 29 - 147 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-2,3,4,6,7,8-HxCDF | 63 | | 28 - 136 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDD | 56 | | 23 - 140 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,6,7,8-HpCDF | 55 | | 28 - 143 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-1,2,3,4,7,8,9-HpCDF | 53 | | 26 - 138 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-OCDD | 46 | | 17 - 157 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |
| 13C-OCDF | 49 | | 17 - 157 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 37Cl4-2,3,7,8-TCDD | 87 | | 35 - 197 | 01/19/24 07:46 | 01/30/24 04:06 | 1 |

Lab Sample ID: LCS 320-734694/2-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734694

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec | Limits |
|---------------------|-------------|------------|---------------|------|---|------|----------|--------|
| | | | | | | | | |
| 2,3,7,8-TCDF | 0.000200 | 0.000194 | | ug/L | | 97 | 75 - 158 | |
| 1,2,3,7,8-PeCDD | 0.00100 | 0.000727 | | ug/L | | 73 | 70 - 142 | |
| 1,2,3,7,8-PeCDF | 0.00100 | 0.000944 | | ug/L | | 94 | 80 - 134 | |
| 2,3,4,7,8-PeCDF | 0.00100 | 0.000976 | | ug/L | | 98 | 68 - 160 | |
| 1,2,3,4,7,8-HxCDD | 0.00100 | 0.000891 | | ug/L | | 89 | 70 - 164 | |
| 1,2,3,6,7,8-HxCDD | 0.00100 | 0.00103 | | ug/L | | 103 | 76 - 134 | |
| 1,2,3,7,8,9-HxCDD | 0.00100 | 0.000994 | | ug/L | | 99 | 64 - 162 | |
| 1,2,3,4,7,8-HxCDF | 0.00100 | 0.000917 | | ug/L | | 92 | 72 - 134 | |
| 1,2,3,6,7,8-HxCDF | 0.00100 | 0.000913 | | ug/L | | 91 | 84 - 130 | |
| 1,2,3,7,8,9-HxCDF | 0.00100 | 0.000916 | | ug/L | | 92 | 78 - 130 | |
| 2,3,4,6,7,8-HxCDF | 0.00100 | 0.000927 | | ug/L | | 93 | 70 - 156 | |
| 1,2,3,4,6,7,8-HpCDD | 0.00100 | 0.000883 | MB | ug/L | | 88 | 70 - 140 | |
| 1,2,3,4,6,7,8-HpCDF | 0.00100 | 0.000985 | MB | ug/L | | 98 | 82 - 122 | |
| 1,2,3,4,7,8,9-HpCDF | 0.00100 | 0.000917 | | ug/L | | 92 | 78 - 138 | |
| OCDD | 0.00200 | 0.00192 | MB | ug/L | | 96 | 78 - 144 | |
| OCDF | 0.00200 | 0.00185 | MB | ug/L | | 92 | 63 - 170 | |

| Isotope Dilution | LCS LCS | | Limits |
|-----------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-2,3,7,8-TCDD | 57 | | 20 - 175 |
| 13C-2,3,7,8-TCDF | 57 | | 22 - 152 |
| 13C-1,2,3,7,8-PeCDD | 65 | | 21 - 227 |
| 13C-1,2,3,7,8-PeCDF | 51 | | 21 - 192 |
| 13C-2,3,4,7,8-PeCDF | 50 | | 13 - 328 |
| 13C-1,2,3,4,7,8-HxCDD | 55 | | 21 - 193 |
| 13C-1,2,3,6,7,8-HxCDD | 57 | | 25 - 163 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-734694/2-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734694

| Isotope Dilution | LCS LCS | | Limits |
|-------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-1,2,3,4,7,8-HxCDF | 57 | | 19 - 202 |
| 13C-1,2,3,6,7,8-HxCDF | 58 | | 21 - 159 |
| 13C-1,2,3,7,8,9-HxCDF | 57 | | 17 - 205 |
| 13C-2,3,4,6,7,8-HxCDF | 56 | | 22 - 176 |
| 13C-1,2,3,4,6,7,8-HpCDD | 54 | | 26 - 166 |
| 13C-1,2,3,4,6,7,8-HpCDF | 51 | | 21 - 158 |
| 13C-1,2,3,4,7,8,9-HpCDF | 51 | | 20 - 186 |
| 13C-OCDD | 42 | | 13 - 199 |
| 13C-OCDF | 44 | | 13 - 199 |

| Surrogate | LCS LCS | | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 37Cl4-2,3,7,8-TCDD | 89 | | 31 - 191 |

Lab Sample ID: LCSD 320-734694/3-A
Matrix: Water
Analysis Batch: 737022

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 734694

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec | | RPD | RPD Limit |
|---------------------|-------------|-------------|----------------|------|---|------|----------|-----|-----|-----------|
| | | | | | | | Limits | RPD | | |
| 2,3,7,8-TCDD | 0.000200 | 0.000216 | | ug/L | | 108 | 67 - 158 | 8 | 50 | |
| 2,3,7,8-TCDF | 0.000200 | 0.000200 | | ug/L | | 100 | 75 - 158 | 3 | 50 | |
| 1,2,3,7,8-PeCDD | 0.00100 | 0.000761 | | ug/L | | 76 | 70 - 142 | 5 | 50 | |
| 1,2,3,7,8-PeCDF | 0.00100 | 0.000997 | | ug/L | | 100 | 80 - 134 | 5 | 50 | |
| 2,3,4,7,8-PeCDF | 0.00100 | 0.00102 | | ug/L | | 102 | 68 - 160 | 5 | 50 | |
| 1,2,3,4,7,8-HxCDD | 0.00100 | 0.000992 | | ug/L | | 99 | 70 - 164 | 11 | 50 | |
| 1,2,3,6,7,8-HxCDD | 0.00100 | 0.00108 | | ug/L | | 108 | 76 - 134 | 5 | 50 | |
| 1,2,3,7,8,9-HxCDD | 0.00100 | 0.00110 | | ug/L | | 110 | 64 - 162 | 10 | 50 | |
| 1,2,3,4,7,8-HxCDF | 0.00100 | 0.000995 | | ug/L | | 100 | 72 - 134 | 8 | 50 | |
| 1,2,3,6,7,8-HxCDF | 0.00100 | 0.000980 | | ug/L | | 98 | 84 - 130 | 7 | 50 | |
| 1,2,3,7,8,9-HxCDF | 0.00100 | 0.000972 | | ug/L | | 97 | 78 - 130 | 6 | 50 | |
| 2,3,4,6,7,8-HxCDF | 0.00100 | 0.000976 | | ug/L | | 98 | 70 - 156 | 5 | 50 | |
| 1,2,3,4,6,7,8-HpCDD | 0.00100 | 0.000949 | MB | ug/L | | 95 | 70 - 140 | 7 | 50 | |
| 1,2,3,4,6,7,8-HpCDF | 0.00100 | 0.00110 | MB | ug/L | | 110 | 82 - 122 | 11 | 50 | |
| 1,2,3,4,7,8,9-HpCDF | 0.00100 | 0.00102 | | ug/L | | 102 | 78 - 138 | 10 | 50 | |
| OCDD | 0.00200 | 0.00212 | MB | ug/L | | 106 | 78 - 144 | 10 | 50 | |
| OCDF | 0.00200 | 0.00199 | MB | ug/L | | 99 | 63 - 170 | 7 | 50 | |

| Isotope Dilution | LCSD LCSD | | Limits |
|-----------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C-2,3,7,8-TCDD | 55 | | 20 - 175 |
| 13C-2,3,7,8-TCDF | 54 | | 22 - 152 |
| 13C-1,2,3,7,8-PeCDD | 67 | | 21 - 227 |
| 13C-1,2,3,7,8-PeCDF | 54 | | 21 - 192 |
| 13C-2,3,4,7,8-PeCDF | 51 | | 13 - 328 |
| 13C-1,2,3,4,7,8-HxCDD | 56 | | 21 - 193 |
| 13C-1,2,3,6,7,8-HxCDD | 58 | | 25 - 163 |
| 13C-1,2,3,4,7,8-HxCDF | 57 | | 19 - 202 |
| 13C-1,2,3,6,7,8-HxCDF | 58 | | 21 - 159 |
| 13C-1,2,3,7,8,9-HxCDF | 59 | | 17 - 205 |
| 13C-2,3,4,6,7,8-HxCDF | 57 | | 22 - 176 |

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-734694/3-A

Matrix: Water

Analysis Batch: 737022

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 734694

| <u>Isotope Dilution</u> | <u>LCSD LCSD</u> | | <u>Limits</u> |
|-------------------------|------------------|------------------|---------------|
| | <u>%Recovery</u> | <u>Qualifier</u> | |
| 13C-1,2,3,4,6,7,8-HpCDD | 56 | | 26 - 166 |
| 13C-1,2,3,4,6,7,8-HpCDF | 54 | | 21 - 158 |
| 13C-1,2,3,4,7,8,9-HpCDF | 54 | | 20 - 186 |
| 13C-OCDD | 44 | | 13 - 199 |
| 13C-OCDF | 47 | | 13 - 199 |

| <u>Surrogate</u> | <u>LCSD LCSD</u> | | <u>Limits</u> |
|--------------------|------------------|------------------|---------------|
| | <u>%Recovery</u> | <u>Qualifier</u> | |
| 37Cl4-2,3,7,8-TCDD | 88 | | 31 - 191 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Specialty Organics

Prep Batch: 734694

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | 1613B | |
| MB 320-734694/1-A | Method Blank | Total/NA | Water | 1613B | |
| LCS 320-734694/2-A | Lab Control Sample | Total/NA | Water | 1613B | |
| LCSD 320-734694/3-A | Lab Control Sample Dup | Total/NA | Water | 1613B | |

Analysis Batch: 737022

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|--------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | 1613B | 734694 |
| MB 320-734694/1-A | Method Blank | Total/NA | Water | 1613B | 734694 |
| LCS 320-734694/2-A | Lab Control Sample | Total/NA | Water | 1613B | 734694 |
| LCSD 320-734694/3-A | Lab Control Sample Dup | Total/NA | Water | 1613B | 734694 |



Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Client Sample ID: Outfall009_20231222_Comp

Lab Sample ID: 570-165899-1

Date Collected: 12/22/23 08:25

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 1613B | | | 1013.1 mL | 20.0 uL | 734694 | 01/19/24 08:46 | C1S | EET SAC |
| Total/NA | Analysis | 1613B | | 1 | 1 Sample | 1 Sample | 737022 | 01/30/24 12:02 | JBC | EET SAC |

Instrument ID: 10D5

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|--------------------|-----------------------|-----------------------|-----------------|
| Alaska (UST) | State | 17-020 | 02-20-24 |
| ANAB | Dept. of Defense ELAP | L2468 | 01-20-27 |
| ANAB | Dept. of Energy | L2468.01 | 01-20-27 |
| ANAB | ISO/IEC 17025 | L2468 | 01-20-27 |
| Arizona | State | AZ0708 | 08-11-24 |
| Arkansas DEQ | State | 88-0691 | 05-18-24 |
| California | State | 2897 | 01-31-24 |
| Colorado | State | CA00044 | 08-31-24 |
| Florida | NELAP | E87570 | 06-30-24 |
| Georgia | State | 4040 | 01-29-25 |
| Hawaii | State | <cert No.> | 01-29-24 * |
| Illinois | NELAP | 200060 | 03-17-24 |
| Kansas | NELAP | E-10375 | 10-31-24 |
| Louisiana | NELAP | 01944 | 06-30-24 |
| Louisiana (All) | NELAP | 01944 | 06-30-24 |
| Maine | State | CA00004 | 04-14-24 |
| Michigan | State | 9947 | 01-31-24 |
| Nevada | State | CA00044 | 07-31-24 |
| New Hampshire | NELAP | 2997 | 04-18-24 |
| New Jersey | NELAP | CA005 | 06-30-24 |
| New York | NELAP | 11666 | 04-01-24 |
| Ohio | State | 41252 | 01-29-25 |
| Oregon | NELAP | 4040 | 01-29-25 |
| Texas | NELAP | T104704399-23-17 | 05-31-24 |
| US Fish & Wildlife | US Federal Programs | 58448 | 04-30-24 |
| USDA | US Federal Programs | P330-18-00239 | 02-28-26 |
| Utah | NELAP | CA000442023-16 | 02-29-24 |
| Virginia | NELAP | 460278 | 03-14-24 |
| Washington | State | C581 | 05-05-24 |
| West Virginia (DW) | State | 9930C | 01-31-25 |
| Wisconsin | State | 998204680 | 08-31-24 |
| Wyoming | State Program | 8TMS-L | 01-28-19 * |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

| Method | Method Description | Protocol | Laboratory |
|--------|---|----------|------------|
| 1613B | Dioxins and Furans (HRGC/HRMS) | EPA | EET SAC |
| 1613B | Separatory Funnel (L/L) Extraction with Soxhlet Extraction of Dioxin and Furans | EPA | EET SAC |

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165899-1 | Outfall009_20231222_Comp | Water | 12/22/23 08:25 | 12/22/23 17:30 |

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VU9Z

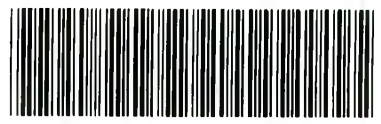
CHAIN OF CUSTODY FORM

| | | | | | | | | | | | | | |
|---|--|---|-----------------------------------|--|----------------------|---|--|--|--------------------------------|--|--|-----------------------|----------|
| Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 | Project: Boeing-SSFL NPDES Permit 2023 Routine Outfall (003-007, C09, 010) Outfall 009 Comp | ANALYSIS REQUIRED | | | | | | | | | | | |
| Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 | Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) | Total Recoverable Metals: (E200.8): Ni, Zn (E200.9): Ag, Cd, Cu, Pb, Sb, Se, Ti | TCDD (end all congeners) (E1613B) | Cr, SO ₄ , NO ₃ , NO ₂ -N (300) | TDS (SM2540C/E160.1) | Total Dissolved Metals: (E200.8): Ni, Zn (E200.9): Ag, Cd, Cu, Pb, Sb, Se, Ti | Gross Alpha (E900.0), Gross Beta (E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | CHRONIC TOXICITY - COPROPHIS (E24.921.1B, 02.01a), ABC Labs - VA 000001 GA | Cyanide (SM4500-CN-E / E335.2) | Total Recoverable Metals: Mercury (E245.1) | Total Dissolved Metals: Mercury (E245.1) | TSS (180.2 (SM2540D)) | Comments |
| Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement 2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. | Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell) | | | | | | | | | | | | |
| Sampler: | | | | | | | | | | | | | |

| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MSMSD | Total Recoverable Metals: (E200.8): Ni, Zn (E200.9): Ag, Cd, Cu, Pb, Sb, Se, Ti | TCDD (end all congeners) (E1613B) | Cr, SO ₄ , NO ₃ , NO ₂ -N (300) | TDS (SM2540C/E160.1) | Total Dissolved Metals: (E200.8): Ni, Zn (E200.9): Ag, Cd, Cu, Pb, Sb, Se, Ti | Gross Alpha (E900.0), Gross Beta (E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) | CHRONIC TOXICITY - COPROPHIS (E24.921.1B, 02.01a), ABC Labs - VA 000001 GA | Cyanide (SM4500-CN-E / E335.2) | Total Recoverable Metals: Mercury (E245.1) | Total Dissolved Metals: Mercury (E245.1) | TSS (180.2 (SM2540D)) | Comments | | | | |
|--------------------|--------------------------------|---------------------|---------------|--------------------|------------|------------------|----------|-------|---|-----------------------------------|--|----------------------|---|--|--|--------------------------------|--|--|-----------------------|----------|--|--|---|--|
| Outfall 009 | Outfall009_20231222_Comp | 12/22/2023 10825 | WM | 500 mL Poly | 3 | HNO ₃ | 95 | Yes | X | | | | | | | | X | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | X | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 145 | No | | | X | | | | | | | | | | | | 48 hours Holding Time NO ₃ & NO ₂ | |
| | | | WM | 500 mL Poly | 1 | None | 155 | No | | | | X | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 1 | NaOH | 220 | No | | | | | | | | | | | X | | | | | |
| | | | WM | 2.5 Gal Cube | 1 | None | 225 | No | | | | | | | | | | | | | | | | Unfiltered and unpreserved analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD. |
| | | | WM | 1 L Glass Amber | 1 | None | 230 | No | | | | | | | | X | | | | | | | | Only test if first or second discharge events of the year. Deliver to ABC Labs in Ventura, CA. |
| | | | WM | 1 Gal Cube | 3 | None | 235 | No | | | | | | | | | | | | | | | | |
| | | | WM | 1 L Poly | 1 | None | 185 | No | | | | | | | X | | | | | | | X | | Filter and preserve w/in 24hrs of receipt at lab |
| | | | WM | 1L Poly | 1 | None | 205 | Yes | | | | | | | | | | | | | | | | |
| Outfall 009 | Outfall009_20231222_Comp_F | 12/22/2023 10825 | WM | borosilicate vials | 2 | None | 320 | No | | | | | | | | | | | X | | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. Filter and preserve w/in 24hrs of receipt at lab. | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | | H | | | | | | | | | | | | Hold | |
| Outfall 009 | Outfall009_20231222_Comp_Extra | 12/22/2023 10825 | WM | 500 mL Poly | 2 | None | 145 | No | | | H | | | | | | | | | | | | Hold | |

Legend: EF=Expert Panel, R=Routine

| | | |
|---|---|---|
| Relinquished By: <i>[Signature]</i> Date/Time: 12-22-2023/1252 Company: H&A | Received By: <i>[Signature]</i> Date/Time: EC 12/22/23 1252 | Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: <input checked="" type="checkbox"/> 48 Hour: _____ 5 Day: _____ Normal: _____ |
| Relinquished By: <i>[Signature]</i> Date/Time: 12/22/23 1730 Company: EC | Received By: <i>[Signature]</i> Date/Time: 12/22/23 1730 | Sample Integrity: (Check) |



570-165899 Chain of Custody

1.3/1.2 1.6/2.0 SC14

Chain of Custody Record



| | | | | | | | |
|---|--|---|--|---|--|--|--|
| Client Information (Sub Contract Lab) | | Sampler: Patel, Virendra | | Lab PM: Patel, Virendra | | Carrier Tracking No(s): 570-334294.1 | |
| Client Contact: Shipping/Receiving | | Phone: Virendra.Patel@eurofins.com | | E-Mail: Virendra.Patel@eurofins.com | | Page: Page 1 of 1 | |
| Company: Eurofins Environment Testing Northern Ca | | Address: 880 Riverside Parkway | | City: West Sacramento | | State of Origin: California | |
| Address: 880 Riverside Parkway | | City: West Sacramento | | State: CA, 95605 | | Job #: 570-165899-2 | |
| Phone: 916-373-5600(Tel) 916-372-1059(Fax) | | PO #: | | IWO #: | | Preservation Codes: A HCL B NaOH N None O AsNaO2 P Na2OAS D Nitric Acid E NaHSO4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other | |
| Project Name: Boeing NPDES SSFL Outfall 009 Comp | | Project #: 57013187 | | SSOW#: | | M Hexane N None O AsNaO2 P Na2OAS Q Na2SO3 R Na2SO4 S H2SO4 T TSP Dodecahydrate U Acetone V MCAA W pH 4-5 Y Trizma Z other (specify) | |
| Due Date Requested: 1/16/2024 | | TAT Requested (days): | | Sample Date | | Sample Time | |
| Sample Identification - Client ID (Lab ID) | | Sample Type (C=comp, G=grab) | | Sample Time | | Sample Date | |
| Outfall009_20231222_Comp (570-165899-1) | | Water | | 08:25 Pacific | | 12/22/23 | |
| Outfall009_20231222_Comp_Extra (570-165899-3) | | Water | | 08:25 Pacific | | 12/22/23 | |
| Perform MS/MSD (Yes or No) | | Field Filtered Sample (Yes or No) | | Totals (Hold) | | Totals | |
| 1613B/1613B_Sox_Sep_P (MOD) Standard List w/ | | 1613B/1613B_Sox_Sep_P (MOD) Standard List w/ | | 1613B/1613B_Sox_Sep_P (MOD) Standard List w/ | | 1613B/1613B_Sox_Sep_P (MOD) Standard List w/ | |
| X | | X | | X | | X | |
| Total Number of Containers | | 2 | | 2 | | 2 | |
| Special Instructions/Note: | | See OAS, Boeing_w/lu to zero, ug/L, Use Boeing glassware. | | See OAS, Boeing_w/lu to zero, ug/L, Use Boeing glassware. | | See OAS, Boeing_w/lu to zero, ug/L, Use Boeing glassware. | |

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I II, III, IV Other (specify) Primary Deliverable Rank: 2
 Special Instructions/QC Requirements: Return To Client Disposal By Lab Archive For _____ Months

| | | |
|--|-------------------|---|
| Empty Kit Relinquished by: | Date: | Method of Shipment: |
| Relinquished by: <i>[Signature]</i> | 12/26/23 1400 | Company |
| Relinquished by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165899-2

Login Number: 165899

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|-------------------------------------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | False | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165899-2

Login Number: 165899

List Number: 2

Creator: Hemphill, Alexis N

List Source: Eurofins Sacramento

List Creation: 12/27/23 03:07 PM

| Question | Answer | Comment |
|---|--------|------------------------------------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.2 C, 1.3 C |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 1/28/2024 1:44:24 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 009 - Comp

JOB NUMBER

570-165899-3

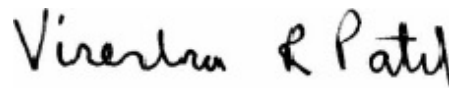
Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Qualifiers

Rad

| Qualifier | Qualifier Description |
|-----------|--|
| G | The Sample MDC is greater than the requested RL. |
| U | Result is less than the sample detection limit. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Job ID: 570-165899-3

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Job Narrative 570-165899-3

Receipt

The samples were received on 12/22/2023 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7° C and 2.0° C.

Receipt Exceptions

The reference method requires samples to have a pH of <2. The following samples were received with a pH of 7 :

Outfall009_20231222_Comp (570-165899-1), Outfall009_20231222_Comp (570-165899-1[MS]), Outfall009_20231222_Comp (570-165899-1[MSD]), Outfall009_20231222_Comp_F (570-165899-2), Outfall009_20231222_Comp_F (570-165899-2[MS]), Outfall009_20231222_Comp_F (570-165899-2[MSD]), Outfall009_20231222_Comp_Extra (570-165899-3), Outfall002_20231222_Comp (570-165901-1), Outfall002_20231222_Comp (570-165901-1[MS]), Outfall002_20231222_Comp (570-165901-1[MSD]), Outfall002_20231222_Comp_Extra (570-165901-2), Outfall002_20231222_Comp_F (570-165901-3), Outfall002_20231222_Comp_F (570-165901-3[MS]), Outfall002_20231222_Comp_F (570-165901-3[MSD]), Outfall008_20231222_Comp (570-165909-1), Outfall008_20231222_Comp (570-165909-1[MS]), Outfall008_20231222_Comp (570-165909-1[MSD]), Outfall008_20231222_Comp_F (570-165909-2), Outfall008_20231222_Comp_F (570-165909-2[MS]), Outfall008_20231222_Comp_F (570-165909-2[MSD]), Outfall008_20231222_Comp_Extra (570-165909-3), Outfall001_20231222_Comp (570-165916-1), Outfall001_20231222_Comp (570-165916-1[MS]), Outfall001_20231222_Comp (570-165916-1[MSD]), Outfall001_20231222_Comp_Extra (570-165916-2), Outfall001_20231222_Comp_F (570-165916-3), Outfall001_20231222_Comp_F (570-165916-3[MS]) and Outfall001_20231222_Comp_F (570-165916-3[MSD]). The samples were adjusted to the appropriate pH in the laboratory.

The number of containers for the following samples did not match the information listed on the Chain-of-Custody (COC): Outfall009_20231222_Comp (570-165899-1). Received only one 500 ml w/HNO3 container, while the COC lists 3.

RAD

Method 900.0: Gross Alpha/Beta Prep Batch 160-642792:

The gross alpha and/or beta detection goal was not met for the following sample due to a reduction of the sample size attributed to high residual mass: Outfall009_20231222_Comp (570-165899-1). Analytical results are reported with the detection limit achieved.

Method 901.1: Gamma Prep batch 160-642737

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

| Inferred from | Reported to Analyte |
|---------------|---------------------|
| Th-234 | Pa-234 |
| Th-234 | U-238 |
| Pb-210 | Po-210 |
| Pb-210 | Bi-210 |
| Cs-137 | Ba-137m |
| Pb-212 | Po-216 |
| Xe-131m | Xe-131 |
| Sb-125 | Te-125m |
| Ag-108m | Ag-108 |
| Rh-106 | Ru-106 |
| Pb-212 | Th-228 |
| Pb-212 | Ra-224 |
| U-235 | Th-231 |
| Ac-228 | Th-232 |
| Ac-228 | Ra-228 |
| Th-227 | Ra-223 |
| Th-227 | Ac-227 |
| Th-227 | Bi-211 |
| Th-227 | Pb-211 |
| Bi-214 | Ra-226 |

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Case Narrative

Client: Haley & Aldrich, Inc.
Project: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Job ID: 570-165899-3 (Continued)

Eurofins Calscience

Outfall009_20231222_Comp (570-165899-1), (570-165650-AX-1-B) and (570-165650-AX-1-C DU)

Method 904.0: Radium-228 batch 642709

The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: Outfall009_20231222_Comp (570-165899-1). Analytical results are reported with the detection limit achieved.

Method ExtChrom:

Method Fill_Geo-0:

Method PrecSep_0:

Method PrecSep-21:

Method PrecSep-7:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Client Sample ID: Outfall009_20231222_Comp

Lab Sample ID: 570-165899-1

No Detections.

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Client Sample ID: Outfall009_20231222_Comp
Date Collected: 12/22/23 08:25
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Gross Alpha | 17.4 | G | 4.38 | 4.80 | 3.00 | 4.65 | pCi/L | 01/03/24 10:29 | 01/15/24 14:43 | 1 |
| Gross Beta | 13.0 | | 1.76 | 2.19 | 4.00 | 1.69 | pCi/L | 01/03/24 10:29 | 01/15/24 14:43 | 1 |

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: EPA 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Client Sample ID: Outfall009_20231222_Comp
 Date Collected: 12/22/23 08:25
 Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1
 Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Cesium-137 | 1.45 | U | 6.73 | 6.73 | 20.0 | 7.96 | pCi/L | 01/02/24 14:27 | 01/09/24 06:26 | 1 |
| Potassium-40 | 107 | | 71.5 | 72.7 | | 67.4 | pCi/L | 01/02/24 14:27 | 01/09/24 06:26 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: EPA 903.0 - Radium-226 (GFPC)

Client Sample ID: Outfall009_20231222_Comp
 Date Collected: 12/22/23 08:25
 Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1
 Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.614 | | 0.304 | 0.309 | 1.00 | 0.376 | pCi/L | 01/02/24 11:15 | 01/24/24 14:23 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 63.4 | | 30 - 110 | | | | | 01/02/24 11:15 | 01/24/24 14:23 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: EPA 904.0 - Radium-228 (GFPC)

Client Sample ID: Outfall009_20231222_Comp
Date Collected: 12/22/23 08:25
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|------|-------|----------------|----------------|---------|
| Radium-228 | 1.07 | U G | 0.822 | 0.828 | 1.00 | 1.26 | pCi/L | 01/02/24 11:18 | 01/18/24 11:41 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 63.4 | | 30 - 110 | | | | | 01/02/24 11:18 | 01/18/24 11:41 | 1 |
| Y Carrier | 91.2 | | 30 - 110 | | | | | 01/02/24 11:18 | 01/18/24 11:41 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: EPA 905 - Strontium-90 (GFPC)

Client Sample ID: Outfall009_20231222_Comp
Date Collected: 12/22/23 08:25
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Strontium-90 | -0.131 | U | 0.380 | 0.381 | 3.00 | 0.716 | pCi/L | 01/03/24 10:27 | 01/11/24 15:20 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Sr Carrier | 70.0 | | 30 - 110 | | | | | 01/03/24 10:27 | 01/11/24 15:20 | 1 |
| Y Carrier | 89.0 | | 30 - 110 | | | | | 01/03/24 10:27 | 01/11/24 15:20 | 1 |



Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: EPA 906.0 - Tritium, Total (LSC)

Client Sample ID: Outfall009_20231222_Comp
Date Collected: 12/22/23 08:25
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----------------------------|-----------------------------|-----|-----|-------|----------------|----------------|---------|
| Tritium | 18.9 | U | 171 | 171 | 500 | 306 | pCi/L | 01/17/24 11:50 | 01/18/24 12:20 | 1 |

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: DOE A-01-R - Isotopic Uranium (Alpha Spectrometry)

Client Sample ID: Outfall009_20231222_Comp
Date Collected: 12/22/23 08:25
Date Received: 12/22/23 17:30

Lab Sample ID: 570-165899-1
Matrix: Water

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|----------------------|-------------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Total Uranium | 1.21 | | 0.533 | 0.536 | 1.00 | 0.255 | pCi/L | 01/09/24 08:25 | 01/22/24 10:08 | 1 |
| Tracer | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Uranium-232 | 67.9 | | 30 - 110 | | | | | 01/09/24 08:25 | 01/22/24 10:08 | 1 |

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Tracer/Carrier Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Ba (30-110) | | | | | | | |
|--------------------|--------------------------|----------------|--|--|--|--|--|--|--|
| 570-165899-1 | Outfall009_20231222_Comp | 63.4 | | | | | | | |
| LCS 160-642708/2-A | Lab Control Sample | 81.3 | | | | | | | |
| MB 160-642708/1-A | Method Blank | 93.3 | | | | | | | |

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Ba (30-110) | Y (30-110) | | | | | | |
|--------------------|--------------------------|----------------|---------------|--|--|--|--|--|--|
| 570-165899-1 | Outfall009_20231222_Comp | 63.4 | 91.2 | | | | | | |
| LCS 160-642709/2-A | Lab Control Sample | 81.3 | 76.3 | | | | | | |
| MB 160-642709/1-A | Method Blank | 93.3 | 83.4 | | | | | | |

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Sr (30-110) | Y (30-110) | | | | | | |
|--------------------|--------------------------|----------------|---------------|--|--|--|--|--|--|
| 570-165899-1 | Outfall009_20231222_Comp | 70.0 | 89.0 | | | | | | |
| LCS 160-642791/2-A | Lab Control Sample | 82.1 | 89.0 | | | | | | |
| MB 160-642791/1-A | Method Blank | 77.1 | 89.7 | | | | | | |

Tracer/Carrier Legend

Sr = Sr Carrier

Y = Y Carrier

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

| Lab Sample ID | Client Sample ID | U-232 (30-110) | | | | | | | |
|--------------------|--------------------------|-------------------|--|--|--|--|--|--|--|
| 570-165899-1 | Outfall009_20231222_Comp | 67.9 | | | | | | | |
| LCS 160-643475/2-A | Lab Control Sample | 77.5 | | | | | | | |
| MB 160-643475/1-A | Method Blank | 73.3 | | | | | | | |

Tracer/Carrier Legend

U-232 = Uranium-232

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-642792/1-A
Matrix: Water
Analysis Batch: 644396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|-------------|---------|-----------|-----------------|-----------------|------|-------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Gross Alpha | 0.09493 | U | 0.709 | 0.710 | 3.00 | 1.30 | pCi/L | 01/03/24 10:29 | 01/15/24 13:30 | 1 |
| Gross Beta | -0.1726 | U | 0.484 | 0.485 | 4.00 | 0.899 | pCi/L | 01/03/24 10:29 | 01/15/24 13:30 | 1 |

Lab Sample ID: LCS 160-642792/2-A
Matrix: Water
Analysis Batch: 644396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|-------------|-------------|------------|----------|-----------------|------|------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Gross Alpha | 49.3 | 53.75 | | 7.98 | 3.00 | 2.71 | pCi/L | 109 | 75 - 125 |

Lab Sample ID: LCSB 160-642792/3-A
Matrix: Water
Analysis Batch: 644400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642792

| Analyte | Spike Added | LCSB Result | LCSB Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|------------|-------------|-------------|-----------|-----------------|------|-------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Gross Beta | 72.1 | 71.21 | | 7.65 | 4.00 | 0.944 | pCi/L | 99 | 75 - 125 |

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-642737/1-A
Matrix: Water
Analysis Batch: 642931

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642737

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----------------|-----------------|------|------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Cesium-137 | 2.641 | U | 13.3 | 13.3 | 20.0 | 17.2 | pCi/L | 01/02/24 14:27 | 01/04/24 09:22 | 1 |
| Potassium-40 | 4.248 | U | 105 | 105 | | 201 | pCi/L | 01/02/24 14:27 | 01/04/24 09:22 | 1 |

Lab Sample ID: LCS 160-642737/2-A
Matrix: Water
Analysis Batch: 643039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642737

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec |
|---------------|-------------|------------|----------|-----------------|------|------|-------|------|----------|
| | | | | Uncert. (2σ+/-) | | | | | Limits |
| Americium-241 | 135000 | 143000 | | 17000 | | 444 | pCi/L | 106 | 75 - 125 |
| Cesium-137 | 40100 | 41770 | | 4980 | 20.0 | 107 | pCi/L | 104 | 75 - 125 |
| Cobalt-60 | 16100 | 16940 | | 2020 | | 66.3 | pCi/L | 105 | 75 - 125 |

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-642708/1-A
Matrix: Water
Analysis Batch: 645440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642708

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|---------|-----------|-----------------|-----------------|------|-------|-------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Radium-226 | 0.04628 | U | 0.0759 | 0.0760 | 1.00 | 0.132 | pCi/L | 01/02/24 11:15 | 01/24/24 14:22 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-642708/1-A
 Matrix: Water
 Analysis Batch: 645440

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642708

| Carrier | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------|--------------|-----------------|----------|----------------|----------------|---------|
| Ba Carrier | 93.3 | | 30 - 110 | 01/02/24 11:15 | 01/24/24 14:22 | 1 |

Lab Sample ID: LCS 160-642708/2-A
 Matrix: Water
 Analysis Batch: 645440

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642708

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|------------|----------------|---------------|-------------|-----------------------------|------|-------|-------|------|----------------|
| Radium-226 | 11.3 | 11.41 | | 1.22 | 1.00 | 0.130 | pCi/L | 101 | 75 - 125 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|---------------|------------------|----------|
| Ba Carrier | 81.3 | | 30 - 110 |

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-642709/1-A
 Matrix: Water
 Analysis Batch: 644834

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642709

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------------|-----------------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.07053 | U | 0.245 | 0.245 | 1.00 | 0.445 | pCi/L | 01/02/24 11:18 | 01/18/24 11:40 | 1 |

| Carrier | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------|--------------|-----------------|----------|----------------|----------------|---------|
| Ba Carrier | 93.3 | | 30 - 110 | 01/02/24 11:18 | 01/18/24 11:40 | 1 |
| Y Carrier | 83.4 | | 30 - 110 | 01/02/24 11:18 | 01/18/24 11:40 | 1 |

Lab Sample ID: LCS 160-642709/2-A
 Matrix: Water
 Analysis Batch: 644834

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642709

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|------------|----------------|---------------|-------------|-----------------------------|------|-------|-------|------|----------------|
| Radium-228 | 9.29 | 10.33 | | 1.44 | 1.00 | 0.583 | pCi/L | 111 | 75 - 125 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|---------------|------------------|----------|
| Ba Carrier | 81.3 | | 30 - 110 |
| Y Carrier | 76.3 | | 30 - 110 |

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-642791/1-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642791

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|--------------|--------------|-----------------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Strontium-90 | 0.2084 | U | 0.194 | 0.194 | 3.00 | 0.311 | pCi/L | 01/03/24 10:27 | 01/11/24 15:19 | 1 |

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: 905 - Strontium-90 (GFPC) (Continued)

Lab Sample ID: MB 160-642791/1-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 642791

| Carrier | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|----------|----------------|----------------|---------|
| Sr Carrier | 77.1 | | 30 - 110 | 01/03/24 10:27 | 01/11/24 15:19 | 1 |
| Y Carrier | 89.7 | | 30 - 110 | 01/03/24 10:27 | 01/11/24 15:19 | 1 |

Lab Sample ID: LCS 160-642791/2-A
 Matrix: Water
 Analysis Batch: 643958

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 642791

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|--------------|-------------|------------|----------|-----------------------|------|-------|-------|------|-------------|
| Strontium-90 | 7.21 | 7.723 | | 0.842 | 3.00 | 0.278 | pCi/L | 107 | 75 - 125 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|------------|---------------|----------|
| Sr Carrier | 82.1 | | 30 - 110 |
| Y Carrier | 89.0 | | 30 - 110 |

Method: 906.0 - Tritium, Total (LSC)

Lab Sample ID: MB 160-644673/1-A
 Matrix: Water
 Analysis Batch: 644941

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 644673

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-----------------------|-----------------------|-----|-----|-------|----------------|----------------|---------|
| Tritium | -77.93 | U | 158 | 159 | 500 | 301 | pCi/L | 01/17/24 11:50 | 01/18/24 07:26 | 1 |

Lab Sample ID: LCS 160-644673/2-A
 Matrix: Water
 Analysis Batch: 644941

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 644673

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|---------|-------------|------------|----------|-----------------------|-----|-----|-------|------|-------------|
| Tritium | 2000 | 1928 | | 368 | 500 | 323 | pCi/L | 96 | 75 - 125 |

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Lab Sample ID: MB 160-643475/1-A
 Matrix: Water
 Analysis Batch: 645111

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 643475

| Analyte | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|---------------|-----------|--------------|-----------------------|-----------------------|------|-------|-------|----------------|----------------|---------|
| Total Uranium | 0.08145 | U | 0.1267 | 0.1268 | 1.00 | 0.185 | pCi/L | 01/09/24 08:25 | 01/22/24 10:07 | 1 |

| Tracer | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------|-----------|--------------|----------|----------------|----------------|---------|
| Uranium-232 | 73.3 | | 30 - 110 | 01/09/24 08:25 | 01/22/24 10:07 | 1 |

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Lab Sample ID: LCS 160-643475/2-A
Matrix: Water
Analysis Batch: 645113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 643475

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec Limits |
|-------------|----------------|---------------|-------------|-----------------------------|------|-------|-------|------|----------------|
| Uranium-234 | 12.7 | 13.15 | | 1.58 | 1.00 | 0.139 | pCi/L | 103 | 75 - 125 |
| Uranium-238 | 13.0 | 14.59 | | 1.71 | 1.00 | 0.111 | pCi/L | 112 | 75 - 125 |

| Tracer | LCS %Yield | LCS Qualifier | Limits |
|-------------|---------------|------------------|----------|
| Uranium-232 | 77.5 | | 30 - 110 |

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QC Association Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Rad

Prep Batch: 642708

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|------------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | PrecSep-21 | |
| MB 160-642708/1-A | Method Blank | Total/NA | Water | PrecSep-21 | |
| LCS 160-642708/2-A | Lab Control Sample | Total/NA | Water | PrecSep-21 | |

Prep Batch: 642709

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | PrecSep_0 | |
| MB 160-642709/1-A | Method Blank | Total/NA | Water | PrecSep_0 | |
| LCS 160-642709/2-A | Lab Control Sample | Total/NA | Water | PrecSep_0 | |

Prep Batch: 642737

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|------------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | Fill_Geo-0 | |
| MB 160-642737/1-A | Method Blank | Total/NA | Water | Fill_Geo-0 | |
| LCS 160-642737/2-A | Lab Control Sample | Total/NA | Water | Fill_Geo-0 | |

Prep Batch: 642791

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|-----------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | PrecSep-7 | |
| MB 160-642791/1-A | Method Blank | Total/NA | Water | PrecSep-7 | |
| LCS 160-642791/2-A | Lab Control Sample | Total/NA | Water | PrecSep-7 | |

Prep Batch: 642792

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------------|-----------|--------|-------------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | Evaporation | |
| MB 160-642792/1-A | Method Blank | Total/NA | Water | Evaporation | |
| LCS 160-642792/2-A | Lab Control Sample | Total/NA | Water | Evaporation | |
| LCSB 160-642792/3-A | Lab Control Sample | Total/NA | Water | Evaporation | |

Prep Batch: 643475

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|----------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | ExtChrom | |
| MB 160-643475/1-A | Method Blank | Total/NA | Water | ExtChrom | |
| LCS 160-643475/2-A | Lab Control Sample | Total/NA | Water | ExtChrom | |

Prep Batch: 644673

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------------|-----------|--------|---------------|------------|
| 570-165899-1 | Outfall009_20231222_Comp | Total/NA | Water | LSC_Dist_Susp | |
| MB 160-644673/1-A | Method Blank | Total/NA | Water | LSC_Dist_Susp | |
| LCS 160-644673/2-A | Lab Control Sample | Total/NA | Water | LSC_Dist_Susp | |

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Client Sample ID: Outfall009_20231222_Comp

Lab Sample ID: 570-165899-1

Date Collected: 12/22/23 08:25

Matrix: Water

Date Received: 12/22/23 17:30

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------------|------------|---------------|-----|------------|----------------|--------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | Evaporation | | | 148.02 mL | 1.0 g | 642792 | 01/03/24 10:29 | ASG | EET SL |
| Total/NA | Analysis | 900.0 | | 1 | | | 644329 | 01/15/24 14:43 | FLC | EET SL |
| Instrument ID: GFPCRED | | | | | | | | | | |
| Total/NA | Prep | Fill_Geo-0 | | | 1000 mL | 1.0 g | 642737 | 01/02/24 14:27 | AJP | EET SL |
| Total/NA | Analysis | 901.1 | | 1 | | | 643591 | 01/09/24 06:26 | CAH | EET SL |
| Instrument ID: GAMMAVISION | | | | | | | | | | |
| Total/NA | Prep | PrecSep-21 | | | 490.36 mL | 1.0 g | 642708 | 01/02/24 11:15 | KAC | EET SL |
| Total/NA | Analysis | 903.0 | | 1 | | | 645440 | 01/24/24 14:23 | FLC | EET SL |
| Instrument ID: GFPCBLUE | | | | | | | | | | |
| Total/NA | Prep | PrecSep_0 | | | 490.36 mL | 1.0 g | 642709 | 01/02/24 11:18 | KAC | EET SL |
| Total/NA | Analysis | 904.0 | | 1 | | | 644834 | 01/18/24 11:41 | FLC | EET SL |
| Instrument ID: GFPCORANGE | | | | | | | | | | |
| Total/NA | Prep | PrecSep-7 | | | 493.49 mL | 1.0 g | 642791 | 01/03/24 10:27 | KAC | EET SL |
| Total/NA | Analysis | 905 | | 1 | | | 643958 | 01/11/24 15:20 | CMM | EET SL |
| Instrument ID: GFPCORANGE | | | | | | | | | | |
| Total/NA | Prep | LSC_Dist_Susp | | | 100.02 mL | 1.0 g | 644673 | 01/17/24 11:50 | MST | EET SL |
| Total/NA | Analysis | 906.0 | | 1 | | | 644941 | 01/18/24 12:20 | MLK | EET SL |
| Instrument ID: LSCBROWN | | | | | | | | | | |
| Total/NA | Prep | ExtChrom | | | 250.34 mL | 1.0 mL | 643475 | 01/09/24 08:25 | MLT | EET SL |
| Total/NA | Analysis | A-01-R | | 1 | | | 645118 | 01/22/24 10:08 | FLC | EET SL |
| Instrument ID: ALPHAVISION | | | | | | | | | | |

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|--------------------------|---|----------------------------|-----------------|
| Alaska (UST) | State | 20-001 | 05-06-25 |
| ANAB | Dept. of Defense ELAP | L2305 | 04-06-25 |
| ANAB | Dept. of Energy | L2305.01 | 04-06-25 |
| ANAB | ISO/IEC 17025 | L2305 | 04-06-25 |
| Arizona | State | AZ0813 | 12-08-24 |
| California | Los Angeles County Sanitation Districts | 10259 | 06-30-22 * |
| California | State | 2886 | 06-30-24 |
| Connecticut | State | PH-0241 | 03-31-25 |
| Florida | NELAP | E87689 | 06-30-24 |
| HI - RadChem Recognition | State | n/a | 06-30-24 |
| Illinois | NELAP | 200023 | 11-30-24 |
| Iowa | State | 373 | 12-01-24 |
| Kansas | NELAP | E-10236 | 10-31-24 |
| Kentucky (DW) | State | KY90125 | 12-31-24 |
| Kentucky (WW) | State | KY90125 (Permit KY0004049) | 12-31-24 |
| Louisiana | NELAP | 04080 | 06-30-22 * |
| Louisiana (All) | NELAP | 04080 | 06-30-24 |
| Louisiana (DW) | State | LA011 | 12-31-24 |
| Maryland | State | 310 | 09-30-24 |
| Massachusetts | State | M-MO054 | 06-30-24 |
| MI - RadChem Recognition | State | 9005 | 06-30-24 |
| Missouri | State | 780 | 06-30-25 |
| Nevada | State | MO000542020-1 | 07-31-24 |
| New Jersey | NELAP | MO002 | 06-30-24 |
| New Mexico | State | MO00054 | 06-30-24 |
| New York | NELAP | 11616 | 03-31-24 |
| North Carolina (DW) | State | 29700 | 07-31-24 |
| North Dakota | State | R-207 | 06-30-24 |
| Oklahoma | NELAP | 9997 | 08-31-24 |
| Oregon | NELAP | 4157 | 09-01-24 |
| Pennsylvania | NELAP | 68-00540 | 02-28-24 |
| South Carolina | State | 85002001 | 06-30-24 |
| Texas | NELAP | T104704193 | 07-31-24 |
| US Fish & Wildlife | US Federal Programs | 058448 | 07-31-24 |
| USDA | US Federal Programs | P330-17-00028 | 05-18-26 |
| Utah | NELAP | MO000542021-14 | 07-31-24 |
| Virginia | NELAP | 10310 | 06-15-25 |
| Washington | State | C592 | 08-30-24 |
| West Virginia DEP | State | 381 | 01-31-24 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

| Method | Method Description | Protocol | Laboratory |
|---------------|--|----------|------------|
| 900.0 | Gross Alpha and Gross Beta Radioactivity | EPA | EET SL |
| 901.1 | Cesium 137 & Other Gamma Emitters (GS) | EPA | EET SL |
| 903.0 | Radium-226 (GFPC) | EPA | EET SL |
| 904.0 | Radium-228 (GFPC) | EPA | EET SL |
| 905 | Strontium-90 (GFPC) | EPA | EET SL |
| 906.0 | Tritium, Total (LSC) | EPA | EET SL |
| A-01-R | Isotopic Uranium (Alpha Spectrometry) | DOE | EET SL |
| Evaporation | Preparation, Evaporation | None | EET SL |
| ExtChrom | Preparation, Extraction Chromatography Resin Actinide Separation | None | EET SL |
| Fill_Geo-0 | Fill Geometry, No In-Growth | None | EET SL |
| LSC_Dist_Susp | Distillation and Suspension (LSC) | None | EET SL |
| PrecSep_0 | Preparation, Precipitate Separation | None | EET SL |
| PrecSep-21 | Preparation, Precipitate Separation (21-Day In-Growth) | None | EET SL |
| PrecSep-7 | Preparation, Precipitate Separation (7-Day In-Growth) | None | EET SL |

Protocol References:

DOE = U.S. Department of Energy
EPA = US Environmental Protection Agency
None = None

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Outfall 009 - Comp

Job ID: 570-165899-3

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------|--------|----------------|----------------|
| 570-165899-1 | Outfall009_20231222_Comp | Water | 12/22/23 08:25 | 12/22/23 17:30 |

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CHAIN OF CUSTODY FORM

Client Name/Address: Haley & Aldrich, 5333 Mission Center Rd Suite 300, San Diego, CA 92108

Eurofins Calscience Project Manager: Virendra Patel, 2841 Dow Avenue, Suite #100, Tustin, CA 92780, Tel: 714-895-5494, ECI Project #57013187

Project: Boeing-SSFL NPDES Permit 2023, Routine Outfall (003-007, C09, 010) Outfall 009 Comp

Project Manager: Katherine Miller, 520.289.8606, 520.904.6944 (cell)

Field Manager: Mark Dominick, 978.234.5033, 818.599.0702 (cell)

Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement 2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.

Sampler:

| Sample Description | Sample I.D. | Sampling Date/Time | Sample Matrix | Container Type | # of Cont. | Preservative | Bottle # | MSMSD | Total Recoverable Metals: (E200.8): Ni, Zn (E200.9): Ag, Cd, Cu, Pb, Sb, Se, Ti | TCDD (end all congeners) (E1613B) | Cr, SO ₄ , NO ₃ , NO ₂ -N (300) | TDS (SM2540C/E160.1) | Total Dissolved Metals: (E200.8): Ni, Zn (E200.9): Ag, Cd, Cu, Pb, Sb, Se, Ti | Gross Alpha (E900.0), Gross Beta (E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, Cs-137 (E901.0 or E901.1) | CHRONIC TOXICITY - COPROPHIS (E24.921.1B, 02.01a), ABC Labs - VA, GA | Cyanide (SM4500-CN-E / E335.2) | Total Recoverable Metals: Mercury (E245.1) | Total Dissolved Metals: Mercury (E245.1) | TSS (180.2 (SM2540D)) | Comments | | | | |
|--------------------|--------------------------------|---------------------|---------------|--------------------|------------|------------------|----------|-------|---|-----------------------------------|--|----------------------|---|--|--|--------------------------------|--|--|-----------------------|----------|--|--|---|--|
| Outfall 009 | Outfall009_20231222_Comp | 12/22/2023 10825 | WM | 500 mL Poly | 3 | HNO ₃ | 95 | Yes | X | | | | | | | | | | | | | | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | X | | | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 2 | None | 145 | No | | | X | | | | | | | | | | | | 48 hours Holding Time NO ₃ & NO ₂ | |
| | | | WM | 500 mL Poly | 1 | None | 155 | No | | | | X | | | | | | | | | | | | |
| | | | WM | 500 mL Poly | 1 | NaOH | 220 | No | | | | | | | | | | | X | | | | | |
| | | | WM | 2.5 Gal Cube | 1 | None | 225 | No | | | | | | | | | | | | | | | | Unfiltered and unpreserved analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD. |
| | | | WM | 1 L Glass Amber | 1 | None | 230 | No | | | | | | | | X | | | | | | | | Only test if first or second discharge events of the year. Deliver to ABC Labs in Ventura, CA. |
| | | | WM | 1 Gal Cube | 3 | None | 235 | No | | | | | | | | | | | | | | | | |
| | | | WM | 1 L Poly | 1 | None | 185 | No | | | | | | | X | | | | | | | X | | Filter and preserve w/in 24hrs of receipt at lab |
| | | | WM | 1L Poly | 1 | None | 205 | Yes | | | | | | | | X | | | | | | | | |
| Outfall 009 | Outfall009_20231222_Comp_F | 12/22/2023 10825 | WM | borosilicate vials | 2 | None | 320 | No | | | | | | | | | | X | | | | Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. Filter and preserve w/in 24hrs of receipt at lab. | | |
| | | | WM | 1 L Glass Amber | 2 | None | 110 | No | | | H | | | | | | | | | | | | Hold | |
| Outfall 009 | Outfall009_20231222_Comp_Extra | 12/22/2023 10825 | WM | 500 mL Poly | 2 | None | 145 | No | | | H | | | | | | | | | | | Hold | | |

Legend: EF=Expert Panel, R=Routine

Relinquished By: [Signature] Date/Time: 12/22/2023/1252 Company: H&A

Received By: [Signature] Date/Time: 12/22/23 1252

Relinquished By: [Signature] Date/Time: 12/22/23 1730 Company: EC

Received By: [Signature] Date/Time: 12/22/23 1730

Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: 48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)

Barcode: 570-165899 Chain of Custody

1.3/1.2 1.6/2.0 SC14

Chain of Custody Record



| | | | | | | | |
|--|--|---|--|---|--|--|--|
| Client Information (Sub Contract Lab) | | Sampler: Patel, Virendra | | Lab PM: Patel, Virendra | | Carrier Tracking No(s): 570-334294.1 | |
| Client Contact: Shipping/Receiving | | Phone: Virendra.Patel@eurofins.com | | E-Mail: Virendra.Patel@eurofins.com | | Page: Page 1 of 1 | |
| Company: Eurofins Environment Testing Northern Ca | | Address: 880 Riverside Parkway | | City: West Sacramento | | State of Origin: California | |
| Address: 880 Riverside Parkway | | City: West Sacramento | | State: CA, 95605 | | Job #: 570-165899-2 | |
| City: West Sacramento | | State: CA, 95605 | | Phone: 916-373-5600(Tel) 916-372-1059(Fax) | | Preservation Codes: A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2OAS E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Y Trizma Z other (specify) Other: | |
| Due Date Requested: 1/16/2024 | | TAT Requested (days): | | PO #: | | Project #: | |
| 1/16/2024 | | | | | | 57013187 | |
| Project Name: Boeing NPDES SSFL Outfall 009 Comp | | SSOW#: | | Sample Date | | Sample Time | |
| Boeing NPDES SSFL Outfall 009 Comp | | | | 12/22/23 | | 08:25 Pacific | |
| Site: | | Sample Type (C=comp, G=grab) | | Matrix (W=water, S=solid, O=oil, A=air) | | Preservation Code: | |
| | | Water | | Water | | Water | |
| Sample Identification - Client ID (Lab ID) | | Sample Date | | Sample Time | | Field Filtered Sample (Yes or No) | |
| Outfall009_20231222_Comp (570-165899-1) | | 12/22/23 | | 08:25 Pacific | | X | |
| Outfall009_20231222_Comp_Extra (570-165899-3) | | 12/22/23 | | 08:25 Pacific | | X | |
| Total Number of Containers | | Perform M/MSD (Yes or No) | | Totals (Hold) | | Totals | |
| 2 | | X | | 1613B/1613B Sox_Sep_P (MOD) Standard List w/ | | 1613B/1613B Sox_Sep_P (MOD) Standard List w/ | |
| Special Instructions/Note: | | See OAS, Boeing_w/lu to zero, ug/L, Use Boeing glassware. | | See OAS, Boeing_w/lu to zero, ug/L, Use Boeing glassware. | | See OAS, Boeing_w/lu to zero, ug/L, Use Boeing glassware. | |
| Possible Hazard Identification | | Unconfirmed | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | | Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months | |
| Deliverable Requested: I II, III, IV Other (specify) | | Primary Deliverable Rank: 2 | | Special Instructions/QC Requirements: | | | |
| Empty Kit Relinquished by: | | Date: | | Method of Shipment: | | | |
| Relinquished by: <i>[Signature]</i> | | Date/Time: 12/26/23 1400 | | Received by: | | Company | |
| Relinquished by: | | Date/Time: | | Received by: | | Company | |
| Relinquished by: | | Date/Time: | | Received by: | | Company | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | Custody Seal No.: | | Cooler Temperature(s) °C and Other Remarks: | | | |



Eurofins Calscience

2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record



| | | | | | | | | | | | | | |
|--|--|--|--|---|--|--|--|-------------------------------------|--|--|--|---|--|
| Client Information (Sub Contract Lab) | | | | Sampler: | | Lab PM: | | Carrier Tracking No(s): | | COC No: | | | |
| Client Contact: Shipping/Receiving | | | | Phone: | | Patel, Virendra | | E-Mail: | | 570-334697.1 | | | |
| Company: TestAmerica Laboratories, Inc. | | | | Accreditations Required (See note): State - California; State Program - California | | State of Origin: California | | Page: Page 1 of 1 | | Job #: 570-165899-3 | | | |
| Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email: | | | | Due Date Requested: 1/30/2024 TAT Requested (days): | | Analysis Requested | | | | | | Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify) | |
| Project Name: Boeing NPDES SSFL - Outfall 009 - Comp Site: | | | | PO #: WO #: Project #: 57013187 SSOW#: | | | | | | | | | |
| Sample Identification - Client ID (Lab ID) | | | | Sample Date | | Sample Time | | Sample Type (C=comp, G=grab) | | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, AA=Air) | | | |
| Outfall009_20231222_Comp (570-165899-1) | | | | 12/22/23 | | 08:25 Pacific | | Water | | Preservation Code: | | | |
| | | | | | | | | | | Field Filtered Sample (Yes or No) <input type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> 900.00/Evaporation Gross Alpha/Beta <input type="checkbox"/> 906.00/SC_Dist_Susp Tritium <input type="checkbox"/> 905_Sr90/PrecSep_7 Strontium-90 <input type="checkbox"/> 903.00/PrecSep_21 Radium-226 <input type="checkbox"/> 904.00/PrecSep_0 Radium-228 <input type="checkbox"/> A01R_UExtChrom_Actin Total Uranium <input type="checkbox"/> 901.1_Cs/Fill_Geo_0 K-40 and Cesium-137 <input type="checkbox"/> | | | |
| | | | | | | | | | | Total Number of containers: 2 | | | |
| | | | | | | | | | | Special Instructions/Note: Boeing SSFL; DO NOT FILTER; use prep date from preservation. Ok to Preserve | | | |
| Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience. | | | | | | | | | | | | | |
| Possible Hazard Identification | | | | | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | | | | | | | |
| Unconfirmed | | | | | | <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months | | | | | | | |
| Deliverable Requested: I, II, III, IV, Other (specify) | | | | | | Primary Deliverable Rank: 2 | | | | | | | |
| Empty Kit Relinquished by: | | | | | | Special Instructions/QC Requirements: | | | | | | | |
| Relinquished by: <i>[Signature]</i> | | | | Date/Time: 12/26/23 12:33 | | Company: | | Received by: | | Date/Time: | | | |
| Relinquished by: | | | | Date/Time: | | Company: | | Received by: | | Date/Time: | | | |
| Relinquished by: | | | | Date/Time: | | Company: | | Received by: | | Date/Time: | | | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | Custody Seal No.: | | Cooler Temperature(s) °C and Other Remarks: | | | | | | | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165899-3

Login Number: 165899

List Number: 1

Creator: Patel, Virendra

List Source: Eurofins Calscience

| Question | Answer | Comment |
|--|--------|-------------------------------------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | False | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-165899-3

Login Number: 165899

List Number: 3

Creator: Thornley, Richard W

List Source: Eurofins St. Louis

List Creation: 12/29/23 12:48 PM

| Question | Answer | Comment |
|--|--------|-----------------------------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | N/A | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | sample preserved on arrival |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Data Usability Summary Report

Project Name: The Boeing Company, Santa Susana Field Laboratory, NPDES

Project Description: Fourth Quarter 2023, Stormwater Samples

Sample Date(s): 22 December 2023

Analytical Laboratory: Eurofins Calscience Environmental Laboratories, Inc. – Tustin, CA

Eurofins Sacramento – West Sacramento, CA

Eurofins St. Louis – Earth City, MO

Validation Performed by: Kristina Ilna

Validation Reviewed by: Denis Conley

Validation Date: 8 February 2024

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDG) listed. This DUSR is organized into the following sections:

- 1. Level II Radiochemistry and Dioxins, Fourth Quarter 2023**
 - 2. Precision and Accuracy [for SDG(s) above]**
 - 3. Explanations**
 - 4. Glossary**
 - 5. Abbreviations**
 - 6. Qualifiers**
- References**

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- National Functional Guidelines (NFG) for Organic Data Review.
- Evaluation of Radiochemical Data Usability by J.G. Paar.
- The project-specific Quality Assurance Project Plan (QAPP), herein referred to as the specified limits (see references section).

Data reported in this sampling event were reported to the laboratory method detection limit (MDL). Results found between the MDL and reporting limit (RL) are flagged J as estimated. Radiological data reported in this sampling event were reported to the Minimum Detectable Concentration (MDC).

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOP). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQO) for the project and therefore usable; any exceptions are noted in the following pages.

1. Level II Radiochemistry and Dioxins, Fourth Quarter 2023

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG numbers

- 570-165899-2, dated 1 February 2024,
- 570-165899-3, dated 28 January 2024,
- 570-165901-2, dated 7 February 2024,
- 570-165909-2, dated 7 February 2024,
- 570-165916-2, dated 7 February 2024, and
- 570-166496-2, dated 7 February 2024.

Samples were collected, preserved, and shipped following standard chain of custody (COC) protocol.

- Method E1613B subcontracted to Eurofins Sacramento in West Sacramento, CA.
- Methods E900 and HASL-300 U Mod subcontracted to Eurofins St. Louis, MO.

Samples were also received appropriately, identified correctly, and analyzed according to the COC. Issues noted with sample management are listed below:

- The number of containers for the following samples did not match the information listed on the Chain-of-Custody (COC): Outfall009_20231222_Comp (570-165899-1). Received only one 500 ml w/HNO3 container, while the COC lists 3.

Analyses were performed on the following samples:

| Sample ID | Sample Type | Lab ID | Sample Date | Matrix | Methods |
|--------------------------|-------------|--------------|-------------|--------|---------|
| Outfall009_20231222_Comp | N | 570-165899-1 | 12/22/2023 | W | A, B, C |
| Outfall002_20231222_Comp | N | 570-165901-1 | 12/22/2023 | W | C |
| Outfall008_20231222_Comp | N | 570-165909-1 | 12/22/2023 | W | C |
| Outfall001_20231222_Comp | N | 570-165916-1 | 12/22/2023 | W | C |
| Outfall002_20231231_Comp | N | 570-166496-1 | 12/31/2023 | W | C |

| Method Holding Times | | | |
|----------------------|----------------|--|------------------------|
| A. | E900 | GROSS ALPHA AND BETA RADIATION | 180 days, unpreserved* |
| B. | HASL-300 U Mod | HASL-300 U Mod | 180 days, unpreserved* |
| C. | E1613B | USEPA Standard Method for High Resolution Analysis of Dioxins/Furans | 1 year, preserved |

* preserved to correct pH at the laboratory.

1.2 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol.

1.3 REPORTING LIMITS AND SAMPLE DILUTIONS

The RLs for the samples within this SDG met or were below the minimum RL requirements specified by the project specific QAPP.

1.4 LABORATORY CONTROL SAMPLES

[Refer to section E 1.3.](#) Compounds associated with the laboratory control samples/laboratory control sample duplicates (LCS/LCSD) analyses associated with client samples exhibited recoveries and normalized differences within the specified limits.

1.5 MATRIX SPIKE SAMPLES

[Refer to section E 1.4.](#) No client samples were used for matrix spike/matrix spike duplicate (MS/MSD) analysis in this SDG.

1.6 BLANK SAMPLE ANALYSIS

[Refer to section E 1.5.](#) Method blank samples had no detections, indicating that no contamination from laboratory activities occurred, with the exceptions listed in Table 2.

1.7 DUPLICATE SAMPLE ANALYSIS

[Refer to section E 1.6.](#) No client samples were used for laboratory duplicate analysis.

1.8 ESTIMATED MAXIMUM POSSIBLE CONCENTRATION (EMPC)

[Refer to Section E 1.9.](#) The laboratory reported the EMPC flags listed in Table 2.

1.9 NEGATIVE RESULT CHECK

[Refer to Section E 1.24.](#) No negative results for radiochemistry were reported in this SDG; therefore, no action is required.

1.10 CHEMICAL YIELD – TRACERS AND CARRIERS

[Refer to Section E 1.25.](#) The reviewer verified that at least one carrier or tracer for radiochemistry was reported per sample and that yields were not extreme.

1.11 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the DQOs for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable as no data was rejected. The qualifiers applied to this dataset are summarized in the Table 3.

2. Precision and Accuracy [for SDG(s) above]

[Refer to Section E 1.7.](#) Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples.

3. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.2 Surrogate Recovery Compliance
 - Surrogates, also known as system monitoring compounds, are compounds added to each sample prior to sample preparation to determine the efficiency of the extraction procedure by evaluating the percent recovery (%R) of the compounds.
- E 1.3 Laboratory Control Samples
 - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
 - For radiological isotope data, the normalized difference was calculated between the spike result and the expected value to determine if the results differed significantly when compared to their respective TPU.
- E 1.4 Matrix Spike Samples
 - Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
 - For radiological isotope data, the normalized difference was calculated between the spike result and the expected value to determine if the results differed significantly when compared to their respective TPU.
- E 1.5 Blank Sample Analysis
 - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
 - No statistical evaluation of radiological isotope method blanks needs to be performed if either of the following conditions are met:
 - Method blank is less than its MDC or less than its 2s counting uncertainty.
 - Method blank result is greater than its MDC with the sample result less than its MDC.
- E 1.6 Laboratory and Field Duplicate Sample Analysis
 - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference or for radiological isotopes, the normalized absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
- E 1.7 Precision and Accuracy
 - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the relative percent difference (RPD) found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a

MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.

- Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%R) of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.
- E 1.9 Dioxin/Furan Estimated Maximum Possible Concentration
 - An Estimated Maximum Possible Concentration (EMPC) is a worst-case estimate of the concentration for a dioxin/furan based on all identification criteria being met except the ion abundance ratio criteria, or if a peak representing a chlorinated diphenyl ether was detected.
- E 1.24 Negative Results
 - Radiological data can produce negative results, and if those results have absolute values greater than their 2s counting uncertainty it is an indication that the instrument background has shifted. The implication of an unstable background is a possible negative bias in the sample result.
- E 1.25 Chemical Yield
 - Tracers and carriers are used in radiochemical separations methods to evaluate chemical separation. Chemical yield is evaluated by recovering the chemical species spiked into samples. Yield is evaluated radiometrically with a tracer and gravimetrically with a carrier. Each sample is spiked with either a carrier or tracer, and sample results are adjusted for yields greater or less than 100 percent. A low yield indicates tracer losses and radionuclide of interest through sample separation. A high yield indicates instrumental problems or contamination.

4. Glossary

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
 - EB Equipment Blank Sample
 - FB Field Blank Sample
 - FD Field Duplicate Sample
 - N Primary Sample
 - TB Trip Blank Sample
- Units:
 - % SURVIVAL percent survival
 - $\mu\text{g/L}$ microgram per liter
 - mg/kg milligrams per kilogram
 - mg/L milligram per liter
 - mL/L milliliters per liter
 - $\text{mpn}/100\text{mL}$ most probable number per 100 milliliters
 - NTU nephelometric turbidity unit
 - pCi/L picocuries per liter
 - umhos/cm micromhos per centimeter
- Matrices:
 - WM Stormwater
 - WMQ Water Quality control matrix
- Table Footnotes:
 - NA Not applicable
 - ND Non-detect
 - NR Not reported
- Common Symbols:
 - % percent
 - < less than
 - \leq less than or equal to
 - > greater than
 - \geq greater than or equal to
 - = equal
 - $^{\circ}\text{C}$ degrees Celsius
 - \pm plus or minus
 - \sim approximately
 - x times (multiplier)
- Fractions:
 - D Dissolved (filtered)
 - N Normal (method cannot be filtered)
 - T Total (unfiltered)

5. Abbreviations

| | | | |
|----------|---|-----------------|---|
| %D | Percent Difference | LCS/LCSD | Laboratory Control Sample/Laboratory Control Sample Duplicate |
| %R | Percent Recovery | | |
| %RSD | Percent Relative Standard Deviation | MDC | Minimum Detectable Concentration |
| 2s | 2 sigma | MDL | Laboratory Method Detection Limit |
| 4,4-DDT | 4 4-dichlorodiphenyltrichloroethane | MS/MSD | Matrix Spike/Matrix Spike Duplicate |
| Abs Diff | Absolute Difference | NFG | National Functional Guidelines |
| amu | atomic mass unit | NH ₃ | Ammonia |
| BPJ | Best Professional Judgement | PCB | Polychlorinated Biphenyl |
| BS | Blank Spike | PDS | Post Digestion Spike |
| CCB | Continuing Calibration Blank | PEM | Performance Evaluation Mixture |
| CCV | Continuing Calibration Verification | QAPP | Quality Assurance Project Plan |
| CCVL | Continuing Calibration Verification Low | QC | Quality Control |
| | | QSM | Quality Systems Manual |
| COC | Chain of Custody | R ² | R-squared value |
| COM | Combined Isotope Calculation | Ra-226 | Radium-226 |
| Cr (VI) | Hexavalent Chromium | Ra-228 | Radium-228 |
| CRI | Collision Reaction Interface | RESC | Resolution Check Measure |
| DQO | data quality objective | RER | Relative Error Ratio |
| DUSR | Data Usability Summary Report | RL | Laboratory Reporting Limit |
| EMPC | Estimated Maximum Possible Concentration | RPD | Relative Percent Difference |
| | | RRF | Relative Response Factors |
| FBK | Field Blank Contamination | RT | Retention Time |
| FDP | Field Duplicate | SAP | sampling analysis plan |
| GC | Gas Chromatograph | SDG | Sample Delivery Group |
| GC/MS | Gas Chromatography/Mass Spectrometry | SIM | Selected ion monitoring |
| | | SOP | Laboratory Standard Operating Procedures |
| GPC | Gel Permeation Chromatography | | |
| HCl | Hydrochloric Acid | SPE | Solid Phase Extraction |
| ICAL | Initial Calibration | SVOC | Semi-Volatile Organic Compounds |
| ICB | Initial Calibration Blank | TIC | Tentatively Identified Compound |
| ICP/MS | Inductively Coupled Plasma/ Mass Spectrometry | TKN | Total Kjeldahl Nitrogen |
| | | TPH | Total Petroleum Hydrocarbon |
| ICV | Initial Calibration Verification | TPU | Total Propagated Uncertainty |
| ICVL | Initial Calibration Verification Low | amu | atomic mass unit |
| IPA | Isopropyl Alcohol | USEPA | U.S. Environmental Protection Agency |
| LC | Laboratory Control | VOC | Volatile Organic Compounds |

6. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Laboratory Qualifiers:
 - BA Relative percent difference out of control.
 - BU Analyzed out of holding time.
 - BV Sample received after holding time expired.
 - EY Result exceeds normal dynamic range; reported as a minimum estimate.
 - F1 MS and/or MSD recovery exceeds control limits.
 - G The Sample MDC is greater than the requested RL.
 - J,DX Results found between the EDL or MDL and laboratory RL.
 - LM MS and/or MSD above acceptance limits. See Blank Spike (LCS).
 - LN MS and/or MSD below acceptance limits. See Blank Spike (LCS).
 - LQ LCS/LCSD recovery above method control limits.
 - MB Analyte present in the method blank.
 - PI Primary and confirm results varied by > than 40% RPD.
 - q The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio; the measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
 - U Result is less than the sample detection limit.
- Validation Notes:
 - Based on validation of the data, a qualifier was not required.
 - *1 Improper preservation of sample.
 - *III Unusual problems found with the data that have been described in the validation report.
 - B Laboratory method blank contamination.
 - D The analysis with this flag should not be used because another more technically sound analysis is available.
 - DNQ Detected but not quantified (constituent value greater than or equal to the laboratory method detection limit and less than the laboratory reporting limit).
 - E Duplicates show poor agreement.
 - H Holding times were exceeded.
 - L1 Laboratory control standard (LCS)/laboratory control standard duplicate (LCSD), relative percent difference (RPD) was outside the control limit.
 - Q Matrix spike (MS) recovery outside of control limits.
 - RPD Pesticides and PCB Confirmation Column RPD Exceeded.

- Validation Qualifiers:

- = No Qualifier.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- J- The result is an estimated quantity, but the result may be biased low.
- J+ The result is an estimated quantity, but the result may be biased high.
- R The sample results were rejected as unusable; the compound may or may not be present in the sample.
- U The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or "ND".
- UJ The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

References

1. Haley & Aldrich, Inc, 2015. Quality Assurance Project Field Plan for Santa Susana Field Laboratory Stormwater Sampling Program. December 2015.
2. J.G. Paar, 1997. Evaluation of Radiochemical Data Usability. April 1997.
3. United States Environmental Protection Agency, 2014b. R10 Data Validation and Review Guidelines for Polychlorinated Dibenzo-p-Dioxin and Polychlorinated Dibenzofuran Data (PCDD/PCDF) Using Method 1613B, and SW846 Method 8290A. EPA-910-R-14-003. May.
4. United States Environmental Protection Agency, 2020b. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-20-005. November.

Data Usability Summary Report

Project Name: The Boeing Company, Santa Susana Field Laboratory, NPDES

Project Description: Fourth Quarter 2023, Stormwater Samples

Sample Date(s): 22 and 31 December 2023

Analytical Laboratory: Eurofins Calscience Environmental Laboratories, Inc. – Tustin, CA

Eurofins St. Louis – Earth City, MO

Validation Performed by: Kristina Ilna

Validation Reviewed by: Denis Conley

Validation Date: 31 January 2023

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDG) listed. This DUSR is organized into the following sections:

- 1. Level IV, Fourth Quarter 2023**
 - 2. Precision and Accuracy [for SDG(s) above]**
 - 3. Explanations**
 - 4. Glossary**
 - 5. Abbreviations**
 - 6. Qualifiers**
- References**

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- National Functional Guidelines (NFG) for Organic Data Review.
- National Functional Guidelines (NFG) for Inorganic Data Review.
- The project-specific Quality Assurance Project Plan (QAPP), herein referred to as the specified limits (see references section).

Data reported in this sampling event were reported to the laboratory method detection limit (MDL). Results found between the MDL and reporting limit (RL) are flagged J as estimated.

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOP). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQO) for the project and therefore usable; any exceptions are noted in the following pages.

1. Level IV, Fourth Quarter 2023

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG numbers:

- 570-165899-1, dated 15 January 2023,
- 570-165916-1, dated 19 January 2023, and
- 570-166496-1, dated 16 January 2023.

Samples were collected, preserved, and shipped following standard chain of custody (COC) protocol. Samples were also received appropriately, identified correctly, and analyzed according to the COC.

Analyses were performed on the following samples:

| Sample ID | Sample Type | Lab ID | Sample Date | Matrix | Methods |
|--------------------------|-------------|--------------|-------------|--------|--------------------------------|
| Outfall009_20231222_Comp | N | 570-165899-1 | 12/22/2023 | W | A (Lead) |
| Outfall001_20231222_Comp | N | 570-165916-1 | 12/22/2023 | W | A (Lead, Iron, Manganese) |
| Outfall002_20231231_Comp | N | 570-166496-1 | 12/31/2023 | W | B (bis(2-Ethylhexyl)phthalate) |

| Method Holding Times | | | |
|----------------------|-----------|---|--------------------------------|
| A. | E200.8 | Metals (by Mass Spectrometer) | 180 days for liquid, preserved |
| B. | E625.1SIM | Semi-Volatile Organic Compounds (SVOCs) | 7 days / 40 days |

1.2 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol, with the following exceptions:

- Method 200.8 requires filtration within 15 minutes of field sampling. The samples were filtered prior to analysis at the laboratory outside the 15-minute window. Data was not qualified per the QAPP.

1.3 REPORTING LIMITS AND SAMPLE DILUTIONS

The RLs for the samples within this SDG met or were below the minimum RL requirements specified by the project specific QAPP.

1.4 SURROGATE RECOVERY COMPLIANCE

Refer to section E 1.2. The percent recovery (%R) for each surrogate compound added to each project sample were determined to be within the laboratory specified quality control (QC) limits, with the following exceptions:

| Method | Sample ID | Batch ID | Surrogate | Dilution | %R | Qualification |
|-----------|--------------------------|------------|------------------|----------|-----|-------------------------|
| E625.1SIM | Outfall002_20231231_Comp | 570-399131 | 2-Fluorobiphenyl | 1x | 28% | J-/UJ target compounds* |

* Compounds targeted by 2-Fluorobiphenyl: bis(2-ethylhexyl) phthalate

1.5 LABORATORY CONTROL SAMPLES

Refer to section E 1.3. Compounds associated with the laboratory control samples/laboratory control sample duplicates (LCS/LCSD) analyses associated with client samples exhibited recoveries and relative percent differences (RPDs) within the specified limits.

1.6 MATRIX SPIKE SAMPLES

Refer to section E 1.4. The sample(s) below were used for matrix spike/matrix spike duplicate (MS/MSD):

| Lab Sample Number | Matrix Spike Client ID | Method(s) |
|-------------------|--------------------------|-----------|
| 570-165899-1 | Outfall009_20231222_Comp | E200.8 |
| 570-165916-1 | Outfall001_20231222_Comp | E200.8 |

The MS/MSD recoveries and the RPD between the MS and MSD results were within the specified limits, with the following exceptions:

| Sample Type | Method | Parent Sample | Analyte | %R/RPD | Qualifier | Affected Samples |
|-------------|--------|--------------------------|-----------|---------|-----------|--|
| MS/MSD | E200.8 | Outfall001_20231222_Comp | Manganese | 55%/52% | J+ | Outfall001_20231222_Comp |
| MS/MSD | | | Iron | 45%/40% | NA | None, native sample > 4x the spike added |

1.7 BLANK SAMPLE ANALYSIS

Refer to section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred with the following exceptions:

| Blank Type | Batch ID | Analyte Detected in Blank | Concentration (µg/L) | Qualifier | Affected Samples |
|--------------|----------|---------------------------|----------------------|-----------|----------------------|
| Method Blank | 397364 | Manganese | 0.478 J,DX | NA | None, samples are ND |

1.8 DUPLICATE SAMPLE ANALYSIS

[Refer to section E 1.6.](#) The laboratory did not analyze any laboratory duplicates as per the method or laboratory SOP.

1.9 GAS CHROMATOGRAPH/MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECKS

[Refer to Section E 1.17.](#) Ion abundance criteria were within the specified QC limits.

1.10 CALIBRATION BLANKS

[Refer to section E 1.18.](#) Calibration blanks had no detections, with the following exceptions:

| Blank Type | Date of Blank | Time | Analyte Detected in | Concentration | Qualifier | Affected Samples |
|------------|---------------|-------|---------------------|---------------|-----------|------------------------------|
| CCB | 12/29/2023 | 12:35 | Iron | 5.28 J,DX | NA | None, samples are >10x blank |

1.11 INTERFERENCE CHECK SAMPLES AND INDUCTIVELY COUPLED PLASMA/MASS SPECTROMETRY TUNE

[Refer to section E 1.19.](#) Percent recoveries were within the specified limits.

The instrument tune check was reviewed, and the resolution of the mass calibration was within 0.1 unified atomic mass unit (u) and the Percent Relative Standard Deviation (%RSD) less than 5 percent.

The CRI, when used, verifies the reporting limit for each analyte with control limits of 70 to 130 percent, or 50 to 150 percent for manganese. The CRI and/or the RL standard checks were within QC limits.

1.12 INITIAL CALIBRATION

[Refer to Section E 1.20.](#) The initial calibration curves were reviewed for all reported parameters and were found to be within the required QC limits.

1.13 INITIAL AND CONTINUING CALIBRATION VERIFICATION

[Refer to section E 1.21.](#) Percent Difference (%D) and Percent Recovery (%R) were reviewed and were found to be within limits without exceptions.

1.14 SERIAL DILUTIONS

[Refer to Section E 1.23.](#) A site-specific sample was not used for serial dilution. No qualification of the reported results is recommended.

1.15 SAMPLE RESULT VERIFICATION

A portion of the sample result(s) listed below were tracked through the relevant sample preparation steps, raw data outputs, transcriptions, conversions and/or calculations and have been confirmed to be accurate and representative of the sample conditions.

| Sample ID | Method | Analyte | Reported Result (ug/L) | Recalculated Result (ug/L) | Result Status |
|--------------------------|-----------|----------------------------|------------------------|----------------------------|----------------------|
| Outfall001_20231222_Comp | E200.8 | Iron | 16000 | 16132 | Confirmed (Rounding) |
| | | Lead | 9.4 | 9.405 | Confirmed (Rounding) |
| | | Manganese | 280 | 281.450 | Confirmed (Rounding) |
| Outfall002_20231231_Comp | E625.1SIM | bis(2-Ethylhexyl)phthalate | 11.73 | 12 | Confirmed (Rounding) |

1.16 SUSPECTED RESULTS

The result for the following target analytes for the site-specific sample was suspected due to the potential contamination in the field or laboratory:

| Sample ID | Method | Analyte | Result (ug/L) | Qualifier |
|--------------------------|-----------|----------------------------|---------------|-----------|
| Outfall002_20231231_Comp | E625.1SIM | bis(2-Ethylhexyl)phthalate | 12 | J |

1.17 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the DQOs for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable as no data was rejected. The qualifiers applied to this dataset are summarized in the table below.

| Sample ID | Method | Analyte | Result | Validation Qualifier | Validation Note |
|--------------------------|-----------|----------------------------|--------|----------------------|-----------------|
| Outfall001_20231222_Comp | E200.8 | Manganese | 280 | J+ | Q |
| Outfall002_20231231_Comp | E625.1SIM | bis(2-Ethylhexyl)phthalate | 12 | J- | S*III |

2. Precision and Accuracy [for SDG(s) above]

[Refer to Section E 1.7.](#) Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples.

3. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.2 Surrogate Recovery Compliance
 - Surrogates, also known as system monitoring compounds, are compounds added to each sample prior to sample preparation to determine the efficiency of the extraction procedure by evaluating the percent recovery (%R) of the compounds.
- E 1.3 Laboratory Control Samples
 - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
 - Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
 - For inorganic methods, when a matrix spike recovery falls outside of the control limits and the sample result is less than four times the spike added, a post digestion spike (PDS) is performed.
- E 1.5 Blank Sample Analysis
 - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
 - Field blanks are prepared to identify contamination that may have been introduced during field activity. Equipment blanks are prepared to identify contamination that may have been introduced while decontaminating sampling equipment. Trip blanks are prepared when volatile analysis is requested to identify contamination that may have been introduced during transport.
- E 1.6 Laboratory and Field Duplicate Sample Analysis
 - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
 - The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The relative percent difference (RPD) or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.

- E 1.7 Precision and Accuracy
 - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the relative percent difference (RPD) found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.
 - Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%R) of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.
- E 1.17 Gas Chromatograph/Mass Spectrometer Instrument Performance Checks
 - When analyzing organic compounds, the instrument performance check solution known as Bromofluorobenzene for volatiles or Decafluorotriphenylphosphine for semi-volatiles is run every 12 hours to ensure adequate mass resolution, identification, and sensitivity, and to document this level of performance prior to analyzing any sequence of standards or samples.
- E 1.18 Calibration Blanks
 - Calibration blanks help determine the validity of the analytical results by determining the presence and magnitude of contamination resulting from laboratory activities or baseline drift during analysis. Initial Calibration Blanks (ICBs) are analyzed after the standards and prior to the Initial Calibration Verification (ICV) sample. Continuing Calibration Blanks (CCBs) are analyzed immediately after every Continuing Calibration Verification (CCV) sample.
- E 1.19 Interference Check Samples and Inductively Coupled Plasma/Mass Spectrometry Tune
 - Inorganic analysis requires an interference check sample be run to determine the validity of the analytical results based on the instrument's ability to overcome interferences typical of those found in samples. Percent recoveries of the interferences or analytes must be between 80 and 120percent.
 - Inorganic analysis performed by a mass spectrometer also requires an Inductively Coupled Plasma/Mass Spectrometry (ICP/MS) tune check that serves as an initial demonstration of instrument stability and precision.
 - The Contract Laboratory Program no longer requires the Contract Required Quantitation Limit Check Standard (CRI) for inorganic analysis, which is run after calibrations, though some laboratories still provide the CRI as well as the required RL standard check.
- E 1.20 Initial Calibration
 - Organic methods require an initial calibration to ensure the instrument is capable of producing acceptable qualitative and quantitative data. Standards of varying concentrations are run to create a calibration curve, which is then used to ensure the validity of compound quantitation.
 - Inorganic methods require an Initial Calibration to ensure the instrument is capable of producing acceptable qualitative and quantitative data. Instruments should be calibrated each time the instrument is set up and after CCV failure. A blank and at least

five standards of varying concentrations should be run to create a calibration curve. At least one of these must be at or below the RL but above the method detection limit (MDL).

- The curve must have a correlation coefficient of greater than or equal to 0.995 and the calculated percent differences (%D) for all non-zero standards must be within ± 30 percent of the true value.
- E 1.21 Initial and Continuing Calibration Verification
 - Organic methods require an additional ICV and CCV to ensure that the instrument continues to meet the sensitivity and linearity criteria to produce acceptable qualitative and quantitative data throughout each analytical sequence. CCVs must be run at the beginning and end of every 12-hour period of operation.
 - Inorganic methods require an ICV and CCV to ensure that the instrument continues to meet the sensitivity and linearity criteria to produce acceptable qualitative and quantitative data throughout each analytical sequence. Initial calibrations must be run each time the instrument is set up and after each CCV failure. ICVs are analyzed immediately after initial calibration to verify ICAL accuracy, and CCVs are analyzed every two hours during an analytical sequence. %R is reported and must be within the specified limits (90 to 110 percent).
- E 1.23 Serial Dilutions
 - Inorganic analysis requires a serial dilution analysis, which determines whether significant physical or chemical interferences exists because of the sample matrix. If the analyte concentration is sufficiently high (concentration in the original sample is $> 50x$ the Method Detection Limit (MDL) that is calculated for the sample) the Percent Difference (%D) between the original determination and the serial dilution analysis (a five-fold dilution) after correction for dilution should be low.

4. Glossary

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
 - EB Equipment Blank Sample
 - FB Field Blank Sample
 - FD Field Duplicate Sample
 - N Primary Sample
 - TB Trip Blank Sample
- Units:
 - % SURVIVAL percent survival
 - $\mu\text{g/L}$ microgram per liter
 - mg/kg milligrams per kilogram
 - mg/L milligram per liter
 - mL/L milliliters per liter
 - $\text{mpn}/100\text{mL}$ most probable number per 100 milliliters
 - NTU nephelometric turbidity unit
 - pCi/L picocuries per liter
 - umhos/cm micromhos per centimeter
- Matrices:
 - WM Stormwater
 - WMQ Water Quality control matrix
- Table Footnotes:
 - NA Not applicable
 - ND Non-detect
 - NR Not reported
- Common Symbols:
 - % percent
 - < less than
 - \leq less than or equal to
 - > greater than
 - \geq greater than or equal to
 - = equal
 - $^{\circ}\text{C}$ degrees Celsius
 - \pm plus or minus
 - \sim approximately
 - x times (multiplier)
- Fractions:
 - D Dissolved (filtered)
 - N Normal (method cannot be filtered)
 - T Total (unfiltered)

5. Abbreviations

| | | | |
|----------|---|-----------------|---|
| %D | Percent Difference | LCS/LCSD | Laboratory Control Sample/Laboratory Control Sample Duplicate |
| %R | Percent Recovery | | |
| %RSD | Percent Relative Standard Deviation | MDC | Minimum Detectable Concentration |
| 2s | 2 sigma | MDL | Laboratory Method Detection Limit |
| 4,4-DDT | 4 4-dichlorodiphenyltrichloroethane | MS/MSD | Matrix Spike/Matrix Spike Duplicate |
| Abs Diff | Absolute Difference | NFG | National Functional Guidelines |
| amu | atomic mass unit | NH ₃ | Ammonia |
| BPJ | Best Professional Judgement | PCB | Polychlorinated Biphenyl |
| BS | Blank Spike | PDS | Post Digestion Spike |
| CCB | Continuing Calibration Blank | PEM | Performance Evaluation Mixture |
| CCV | Continuing Calibration Verification | QAPP | Quality Assurance Project Plan |
| CCVL | Continuing Calibration Verification Low | QC | Quality Control |
| | | QSM | Quality Systems Manual |
| COC | Chain of Custody | R ² | R-squared value |
| COM | Combined Isotope Calculation | Ra-226 | Radium-226 |
| Cr (VI) | Hexavalent Chromium | Ra-228 | Radium-228 |
| CRI | Collision Reaction Interface | RESC | Resolution Check Measure |
| DQO | data quality objective | RER | Relative Error Ratio |
| DUSR | Data Usability Summary Report | RL | Laboratory Reporting Limit |
| EMPC | Estimated Maximum Possible Concentration | RPD | Relative Percent Difference |
| | | RRF | Relative Response Factors |
| FBK | Field Blank Contamination | RT | Retention Time |
| FDP | Field Duplicate | SAP | sampling analysis plan |
| GC | Gas Chromatograph | SDG | Sample Delivery Group |
| GC/MS | Gas Chromatography/Mass Spectrometry | SIM | Selected ion monitoring |
| | | SOP | Laboratory Standard Operating Procedures |
| GPC | Gel Permeation Chromatography | | |
| HCl | Hydrochloric Acid | SPE | Solid Phase Extraction |
| ICAL | Initial Calibration | SVOC | Semi-Volatile Organic Compounds |
| ICB | Initial Calibration Blank | TIC | Tentatively Identified Compound |
| ICP/MS | Inductively Coupled Plasma/ Mass Spectrometry | TKN | Total Kjeldahl Nitrogen |
| | | TPH | Total Petroleum Hydrocarbon |
| ICV | Initial Calibration Verification | TPU | Total Propagated Uncertainty |
| ICVL | Initial Calibration Verification Low | amu | atomic mass unit |
| IPA | Isopropyl Alcohol | USEPA | U.S. Environmental Protection Agency |
| LC | Laboratory Control | VOC | Volatile Organic Compounds |

6. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Laboratory Qualifiers:
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 - BU Analyzed out of holding time.
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 - EY Result exceeds normal dynamic range; reported as a minimum estimate.
 - F1 MS and/or MSD recovery exceeds control limits.
 - G The Sample MDC is greater than the requested RL.
 - J,DX Results found between the EDL or MDL and laboratory RL.
 - LM MS and/or MSD above acceptance limits. See Blank Spike (LCS).
 - LN MS and/or MSD below acceptance limits. See Blank Spike (LCS).
 - LQ LCS/LCSD recovery above method control limits.
 - MB Analyte present in the method blank.
 - PI Primary and confirm results varied by > than 40% RPD.
 - q The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio; the measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
 - U Result is less than the sample detection limit.
- Validation Notes:
 - Based on validation of the data, a qualifier was not required.
 - *1 Improper preservation of sample.
 - *III Unusual problems found with the data that have been described in the validation report.
 - B Laboratory method blank contamination.
 - D The analysis with this flag should not be used because another more technically sound analysis is available.
 - DNQ Detected but not quantified (constituent value greater than or equal to the laboratory method detection limit and less than the laboratory reporting limit).
 - E Duplicates show poor agreement.
 - H Holding times were exceeded.
 - L1 Laboratory control standard (LCS)/laboratory control standard duplicate (LCSD), relative percent difference (RPD) was outside the control limit.
 - Q Matrix spike (MS) recovery outside of control limits.

- Validation Qualifiers:

- = No Qualifier.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- J- The result is an estimated quantity, but the result may be biased low.
- J+ The result is an estimated quantity, but the result may be biased high.
- R The sample results were rejected as unusable; the compound may or may not be present in the sample.
- U The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or "ND".
- UJ The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

References

1. United States Environmental Protection Agency (USEPA), 2020a. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-542-R-20-006. November 2020.
2. USEPA, 2020b. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-20-005. November 2020.
3. Haley & Aldrich, Inc, 2015. Quality Assurance Project Field Plan for Santa Susana Field Laboratory Stormwater Sampling Program. December 2015.
4. U.S. Environmental Protection Agency (EPA). Bis(2-ethylhexyl) phthalate (DEHP) Summary Sheet, January 2000.

TABLES

TABLE 1
METHOD BLANKS
 THE BOEING COMPANY
 SANTA SUSANA FIELD LABORATORY

| Batch ID | Analyte Detected in Blank | Concentration (µg/L) | Qualifier | Affected Samples |
|----------|---------------------------|----------------------|-----------|--|
| 737022 | 1,2,3,4,6,7,8-HpCDD | 0.00000213 J,DX q | Result U | Outfall002_20231222_Comp Outfall008_20231222_Comp Outfall001_20231222_Comp |
| | OCDD | 0.0000162 J,DX | | Outfall008_20231222_Comp |
| | 1,2,3,4,6,7,8-HpCDF | 0.00000272 J,DX | | Outfall009_20231222_Comp Outfall002_20231222_Comp Outfall008_20231222_Comp Outfall001_20231222_Comp |
| | OCDF | 0.00000335 J,DX | | |
| 737902 | 1,2,3,4,7,8,9-HpCDF | 0.00000769 J,DX | NA | None, samples are ND |
| | 1,2,3,4,7,8-HxCDF | 0.00000542 J,DX | | |
| | 1,2,3,6,7,8-HxCDF | 0.0000038 J,DX | | |
| | 1,2,3,7,8,9-HxCDF | 0.00000632 J,DX | | |
| | 1,2,3,7,8-PeCDD | 0.00000332 J,DX | | |
| | 1,2,3,7,8-PeCDF | 0.00000346 J,DX | | |
| | 2,3,4,6,7,8-HxCDF | 0.00000446 J,DX | | |
| | 2,3,4,7,8-PeCDF | 0.0000031 J,DX | | |
| | 1,2,3,4,6,7,8-HpCDD | 0.00000938 J,DX | Result U | Outfall002_20231231_Comp |
| | 1,2,3,4,6,7,8-HpCDF | 0.000016 J,DX | | |
| | 1,2,3,4,7,8-HxCDD | 0.00000667 J,DX | | |
| | 1,2,3,6,7,8-HxCDD | 0.00000555 J,DX | | |
| | 1,2,3,7,8,9-HxCDD | 0.0000076 J,DX | | |
| | OCDD | 0.0000342 J,DX | | |
| | OCDF | 0.00002 J,DX | | |

TABLE 2
EMPC
 THE BOEING COMPANY
 SANTA SUSANA FIELD LABORATORY

| Method | Lab ID | Analyte | Concentration (ug/L) | Qualifier | Affected Samples |
|------------|--------------|---------------------|----------------------|--------------------------|--------------------------|
| USEPA 1613 | 570-165899-1 | 2,3,7,8-TCDD | 1.9E-06 | Result UJ | Outfall009_20231222_Comp |
| | | 1,2,3,4,7,8-HxCDD | 2.5E-06 | | |
| | | 1,2,3,7,8-PeCDD | 7.9E-07 | | |
| | | 1,2,3,6,7,8-HxCDF | 4.4E-06 | | |
| | | 2,3,4,6,7,8-HxCDF | 2.4E-06 | | |
| | 570-165901-1 | 1,2,3,7,8,9-HxCDD | 8.6E-07 | | Outfall002_20231222_Comp |
| | | 1,2,3,4,7,8-HxCDD | 1.4E-06 | | |
| | | 1,2,3,4,7,8,9-HpCDF | 1.0E-06 | | |
| | 570-165909-1 | 1,2,3,6,7,8-HxCDF | 8.7E-07 | | Outfall008_20231222_Comp |
| | 570-165916-1 | 1,2,3,7,8,9-HxCDF | 7.2E-07 | | Outfall008_20231222_Comp |
| | | 1,2,3,7,8,9-HxCDD | 9.9E-07 | | |
| | 570-166496-1 | 1,2,3,7,8,9-HxCDF | 9.0E-07 | | Outfall001_20231222_Comp |
| | | 1,2,3,4,7,8,9-HpCDF | 6.4E-06 | | |
| | | 1,2,3,6,7,8-HxCDF | 3.2E-06 | | |
| | | 2,3,4,6,7,8-HxCDF | 3.4E-06 | | |
| | | 1,2,3,7,8,9-HxCDF | 3.6E-06 | Outfall008_20231222_Comp | |

APPENDIX F

Fourth Quarter 2023 Reasonable Potential Analysis Tables

APPENDIX F

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**REASONABLE POTENTIAL ANALYSIS SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

Notes:

1. The following Reasonable Potential Analysis (RPA) provides the analytical results as performed by the procedures outlined in *Reasonable Potential Analysis Methodology Technical Memo* (MWH and Flow Science, 2006).
2. The monitoring data set utilized to conduct the RPA consists of all applicable and relevant data from the present reporting quarter.
3. As directed by the CTR and the Regional Water Control Board 2,3,7,8-TCDD (Dioxin) values are to be expressed in NPDES permitting and this RPA as TCDD Total Equivalence units (TEQs). A TCDD TEQ is determined by multiplying each of the seventeen dioxin and furan congeners by their respective toxicity equivalency factor (TEF) and bioaccumulation equivalency factor (BEF) then summing the results of those products. For the purposes of this RPA, the resulting TCDD TEQ does not include those congener concentrations that are reported as DNQ, as specified on Page 26, of the NPDES Permit Effective April 1, 2015 (Water Board, 2015).
4. Data reported with qualifiers (e.g., J [DNQ] or R) are considered estimated or rejected and are not used in this RPA.
5. All of the following abbreviations and/or notes may not occur on every table.
6. Based on ORDER NO. R4-2015-0033, page E-2, Section I.C, only pollutants which do not have a final effluent limitation in the NPDES permit are included in this RPA analysis.

Definition of Acronyms, Abbreviations, and Terminology Used

| | |
|---------------------|---|
| >= | Greater than or equal to |
| * | Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. The equations are provided in the CTR, (US EPA, 2011). Values displayed correspond to a total hardness of 100 mg/l. |
| ‡ | Available data are below detection limits; detection limit is assigned for maximum effluent concentration (MEC) and is not applicable to compare against lowest water quality criteria concentration (C) |
| µg/L | Concentration units, micrograms per liter |
| All Data Qualified | All available monitoring data are qualified and no statistical analysis is performed. |
| Annual | The 2015 NPDES Permit requires annual monitoring. |
| ANR | Analysis not required; e.g., constituent or outfall was not required by the NPDES permit to be sampled and analyzed. |
| Available Data < DL | All available monitoring data that are not qualified are below detection limits. |
| B | Background |
| C | Concentration |
| CCC | Criterion Continuous Concentration |
| CMC | Criterion Maximum Concentration |
| CTR | California Toxics Rule |
| CV | Coefficient of Variation |
| DL | Detection Limit |
| EPA TSD | EPA's Technical Support Document for Water Quality Based Toxics Control, (see references). |

**REASONABLE POTENTIAL ANALYSIS SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

Definition of Acronyms, Abbreviations, and Terminology Used (Continued)

| | |
|----------------|---|
| Fibers/L | Units for asbestos concentration, fibers per liter |
| HH O | Human Health criteria for consumption of Organisms only |
| HH W&OMEC | Maximum Observed Effluent Concentration |
| mg/L | Concentration units, milligrams per liter |
| Min | Minimum |
| MPN/100ml | Most probable number per 100 milliliters |
| NA | Not Applicable |
| Narrative | Water quality criteria are expressed as a narrative objective rather than a numeric objective, and therefore are not part of the statistical RPA calculations. |
| None | No available CTR or Basin Plan criteria. |
| pH Dependent | CTR Criteria are based on pH. |
| Discharge | The 2015 NPDES Permit requires monitoring once per discharge event. |
| Qualified Data | Data qualifier definitions are: (a) J- The reported result is an estimate. The value is less than the minimum calibration level but greater than the estimated detection limit (EDL), (b) UJ- The analyte was not detected in the sample at the detection limit /estimated detection limit (EDL), (c) Nondetect U with blank qualifier(B, F, T) - Analyte found in sample and associated blank, and (d) DNQ- Detected Not Quantified (sample results less than the RL, but great than or equal to the laboratory's MDL) |
| Reserved | EPA has reserved the CTR criteria. |
| RPA | Reasonable Potential Analysis |
| SIP | The State Water Resources Control Board "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California," (see references). |
| Tot | Total |

Priority Pollutant RPA Column Explanation

| | |
|---|---|
| OUTFALL | Outfall (or group of outfalls) with sampling data used in RPA. |
| CTR | Provides CTR constituent reference number. |
| Constituent | Provides CTR constituent common name. |
| Units | Provides the data set's concentration units as referenced by 2015 NPDES Permit. |
| MEC | Provides the outfall monitoring group's maximum value from the applicable data set. |
| CV | Equal to the standard deviation divided by the average of the applicable data set. If the number of samples is less than 10, the CV is assumed to be 0.6. |
| <i>Step 1 identifies all applicable water quality criteria.</i> | |
| CTR Criteria | Concentration criteria as listed in the CTR. |
| CMC = Acute | The Freshwater CMC is listed as the acute concentration criterion. |
| CCC = Chronic | The Freshwater CCC is listed as the chronic concentration criterion. |
| HH W&O (Not App) | The HH W&O is deemed not applicable based on past Regional Board RPAs. |
| HH O = HH | The HH O is listed as the CTR human health concentration criterion. |

**REASONABLE POTENTIAL ANALYSIS SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

Priority Pollutant RPA Column Explanation (Continued)

| | |
|---|---|
| Basin Plan Criteria | Applicable Basin Plan Criteria are listed for the Los Angeles River and/or Calleguas Creek watersheds. |
| C = Lowest Criteria | The comparison concentration (C) is equal to the lowest criterion for a constituent based on the CMC, CCC, HH O, and Basin Plan Criteria listed. |
| <i>Step 2 defines the applicable data set.</i> | |
| Is Effluent Data Available | If all data is qualified, then NO. If not, then YES. |
| <i>Step 3 determines the maximum observed effluent concentration.</i> | |
| Was Constituent Detected in Effluent Data | If the constituent was detected, then YES. If all monitoring data are non-detect or qualified then NO. |
| Are all Detection Limits >C | If constituent was detected in effluent data then not applicable (NA). If constituent was not detected and all analysis detection limits are greater than the comparison concentration, then YES, if not then NO. |
| If DL > C, MEC = Min (DL) | If the previous cell answer was yes, then the MEC is equal to the minimum detection limit. If not, then NA. |
| <i>Step 4 compares the MEC to the lowest applicable water quality criteria.</i> | |
| MEC >= C | If the MEC is greater than or equal to the comparison concentration then YES, if not then NO. |

Note: Steps 5 and 6 of the Priority Pollutant RPA do not apply to the Santa Susana Site because the Regional Board gives no consideration for receiving water background constituent concentrations. Furthermore, Boeing defers the application of best professional judgment in Step 7 and final determination of reasonable potential in Step 8 to the Regional Board Staff.

Non-priority Pollutant RPA Column Explanation

| | |
|---|--|
| Constituent | Provides the Non-Priority Pollutant constituent common name |
| Monitoring | Provides the 2015 NPDES Permit directed monitoring frequency |
| Units | Provides the data set's concentration units |
| Number of Samples | Provides the number of available samples that are not qualified |
| MEC | Provides the outfall monitoring group's maximum value from the applicable data set |
| CV | Equal to the standard deviation divided by the average of the applicable data set. If the number of samples is less than 10, the CV is assumed to be 0.6. |
| Multiplier | Utilizes the EPA's TSD calculation to determine multiplier for which the maximum effluent concentration is calculated. (MWH and Flow Science, 2006, or EPA TSD, 1991) |
| Projected Maximum Effluent Concentration | Utilizes the product of the multiplier and the MEC as an estimate for the projected maximum effluent concentration. |
| 99/99 | Statistical technique used in the Environmental Protection Agency's Technical Support Document RPA to compute the upper 99th confidence range of the 99th % value of the log normal distribution of monitoring data. |
| Dilution Ratio | The Regional Board allocates no dilution ratio to the Santa Susana Site (NA). |
| Background Concentration | The Regional Board allocates no background concentration to the Santa Susana Site (NA). |
| Projected Maximum Receiving Water Concentration | The Regional Board estimates the projected maximum receiving water concentration as equal to the projected maximum effluent concentration. |

**REASONABLE POTENTIAL ANALYSIS SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

Non-priority Pollutant RPA Column Explanation (Continued)

| | |
|---|---|
| Step 1, Determine Water Quality Objectives | The water quality objective is based on appropriate Basin Plan criteria as noted in the Reasonable Potential Analysis Methodology Technical Memo. |
| BU – Beneficial Use Protection, NC – Human Non-carcinogen, AP- Aquatic Life Protection, TMDL – Total Maximum Daily Load | This is the Regional Board’s Basis for determining if reasonable potential should be evaluated for a non-priority pollutant. |

Note: Boeing has completed appropriate statistical calculations but defers the application of best professional judgment and the final determination of reasonable potential to the Regional Board Staff.

**REASONABLE POTENTIAL ANALYSIS SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

References:

1. Los Angeles Regional Water Quality Control Board, "Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, (Basin Plan)." June 13, 1994.
2. MWH and Flow Science, "Reasonable Potential Analysis Methodology Technical Memo- Version 1, Final, Santa Susan Field Laboratory, Ventura County, California." April 28, 2006.
3. State Water Resources Control Board, "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, (SIP)" Resolution No. 2005-0019, February 24, 2005.
4. US EPA, *40CFR part 131, Water Quality Standards; Establishment of numeric Criteria for Priority Toxic Pollutants for the State of California*, (CTR) Federal Registry, 2011, pp. 496 - 507.
5. US EPA, "Technical Support Document for Water Quality-based Toxics Control." EPA/505/2-90-001, PB-91-127415, March 1991.

**TABLE F-1
REASONABLE POTENTIAL ANALYSIS - PRIORITY POLLUTANTS (OUTFALLS 001, 002, 011, AND 018)**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| Outfall | CTR | Constituent | Units | MEC | CV | Step 1: Water Quality Criteria, Determine C | | | | | | Step 2 Is Effluent Data Available | Step 3 | | Step 4 MEC >= C | |
|--------------|------|---------------------------------|----------|--------------------|-----|---|---------------|------------------|-----------|------------|---------------------|--------------------------------------|---|------------------------------|--------------------|---------------------------|
| | | | | | | CTR CRITERIA | | | | Basin Plan | C = Lowest Criteria | | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | | If DL > C, MEC = Min (DL) |
| | | | | | | Freshwater | | Human Health | | | | | | | | |
| | | | | | | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | | | | | | | |
| 1, 2, 11, 18 | 15 | Asbestos > 10 um | Fibers/L | ANR | NA | NONE | NONE | 7,000,000 | NONE | 7,000,000 | 7000000 | No | NA | NA | NA | |
| 1, 2, 11, 18 | 17 | Acrolein | ug/L | Available Data <DL | 0.6 | NONE | NONE | 320 | 780 | NONE | 780 | Yes | No | No | NA | |
| 1, 2, 11, 18 | 18 | Acrylonitrile | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.059 | 0.66 | NONE | 0.66 | Yes | No | Yes | 1.4 | NA [‡] |
| 1, 2, 11, 18 | 19 | Benzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 1.2 | 71 | 1 | 1 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 20 | Bromoform | ug/L | Available Data <DL | 0.6 | NONE | NONE | 4.3 | 360 | NONE | 360 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 21 | Carbon Tetrachloride | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.25 | 4.4 | 0.5 | 0.5 | Yes | No | Yes | 0.28 | NA [‡] |
| 1, 2, 11, 18 | 22 | Chlorobenzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 680 | 21,000 | 70 | 70 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 23 | Dibromochloromethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.401 | 34 | NONE | 34 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 24 | Chloroethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | NONE | NONE | NONE | NONE | Yes | No | NA | NA | NA |
| 1, 2, 11, 18 | 25 | 2-Chloroethyl vinyl ether | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 26 | Chloroform (Trichloromethane) | ug/L | Available Data <DL | 0.6 | NONE | NONE | Reserved | Reserved | NONE | NONE | Yes | No | NA | NA | NA |
| 1, 2, 11, 18 | 27 | Dichlorobromomethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.56 | 46 | NONE | 46 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 28 | 1,1-Dichloroethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | NONE | NONE | 5 | 5 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 31 | 1,2-Dichloropropane | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.52 | 39 | 5 | 5 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 32 | cis-1,3-Dichloropropene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 10 | 1,700 | 0.5 | 0.5 | Yes | No | Yes | 0.30 | NA [‡] |
| 1, 2, 11, 18 | 032a | trans-1,3-Dichloropropene | ug/L | Available Data <DL | 0.6 | ug/L | NONE | 10 | 1,700 | 0.5 | 0.5 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 33 | Ethylbenzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 3,100 | 29,000 | 700 | 700 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 34 | Bromomethane (Methyl Bromide) | ug/L | Available Data <DL | 0.6 | NONE | NONE | 48 | 4,000 | NONE | 4000 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 35 | Chloromethane (Methyl Chloride) | ug/L | Available Data <DL | 0.6 | NONE | NONE | Narrative | Narrative | NONE | NONE | Yes | No | NA | NA | NA |
| 1, 2, 11, 18 | 36 | Methylene chloride | ug/L | Available Data <DL | 0.6 | NONE | NONE | 4.7 | 1,600 | NONE | 1600 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 37 | 1,1,2,2-Tetrachloroethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.17 | 11 | 1 | 1 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 38 | Tetrachloroethene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.8 | 8.85 | 5 | 5 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 39 | Toluene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 6,800 | 200,000 | 150 | 150 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 40 | trans-1,2-Dichloroethene | ug/L | Available Data <DL | 0.6 | ug/L | NONE | 700 | 140,000 | 10 | 10 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 41 | 1,1,1-Trichloroethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | Narrative | Narrative | 200 | 200 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 42 | 1,1,2-trichloroethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.6 | 42 | 5 | 5 | Yes | No | No | NA | No |
| 1, 2, 11, 18 | 44 | Vinyl chloride | ug/L | Available Data <DL | 0.6 | NONE | NONE | 2 | 525 | 0.5 | 0.5 | Yes | No | Yes | 0.47 | NA [‡] |
| 1, 2, 11, 18 | 45 | 2-chlorophenol | ug/L | ANR | NA | NONE | NONE | 120 | 400 | NONE | 400 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 46 | 2,4-Dichlorophenol | ug/L | ANR | NA | NONE | NONE | 93 | 790 | NONE | 790 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 47 | 2,4-dimethylphenol | ug/L | ANR | NA | NONE | NONE | 540 | 2,300 | NONE | 2300 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 48 | 2-Methyl-4,6-dinitrophenol | ug/L | ANR | NA | NONE | NONE | 13.4 | 765 | NONE | 765 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 49 | 2,4-dinitrophenol | ug/L | ANR | NA | NONE | NONE | 70 | 14,000 | NONE | 14000 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 50 | 2-nitrophenol | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 51 | 4-nitrophenol | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 52 | 4-Chloro-3-methylphenol | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 54 | Phenol | ug/L | ANR | NA | NONE | NONE | 21,000 | 4,600,000 | NONE | 4600000 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 56 | Acenaphthene | ug/L | ANR | NA | NONE | NONE | 1,200 | 2,700 | NONE | 2700 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 57 | Acenaphthylene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 58 | Anthracene | ug/L | ANR | NA | NONE | NONE | 9,600 | 110,000 | NONE | 110000 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 59 | Benzidine | ug/L | ANR | NA | NONE | NONE | 0.00012 | 0.00054 | NONE | 0.00054 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 60 | Benzo(a)Anthracene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 61 | Benzo(a)Pyrene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | 0.2 | 0.049 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 62 | Benzo(b)Fluoranthene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 63 | Benzo(g,h,i)Perylene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 64 | Benzo(k)Fluoranthene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 65 | Bis (2-Chloroethoxy) methane | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 66 | bis (2-Chloroethyl) ether | ug/L | ANR | NA | NONE | NONE | 0.031 | 1.4 | NONE | 1.4 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 67 | Bis (2-Chloroisopropyl) Ether | ug/L | ANR | NA | NONE | NONE | 1,400 | 170,000 | NONE | 170000 | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 69 | 4-Bromophenyl phenyl ether | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 1, 2, 11, 18 | 70 | Butyl benzylphthalate | ug/L | ANR | NA | NONE | NONE | 3,000 | 5,200 | NONE | 5200 | No | NA | NA | NA | NA |

TABLE F-1
REASONABLE POTENTIAL ANALYSIS - PRIORITY POLLUTANTS (OUTFALLS 001, 002, 011, AND 018)

FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

| Outfall | CTR | Constituent | Units | MEC | CV | Step 1: Water Quality Criteria, Determine C | | | | | | Basin Plan | C = Lowest Criteria | Step 2 Is Effluent Data Available | Step 3 | | Step 4 MEC >= C |
|--------------|-----|----------------------------------|-------|--------------------|-----|---|---------------|------------------|-----------|---|------------------------------|------------|---------------------|--------------------------------------|---------------------------|-----------------|--------------------|
| | | | | | | CTR CRITERIA | | | | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | | | | If DL > C, MEC = Min (DL) | | |
| | | | | | | Freshwater | | Human Health | | | | | | | | | |
| | | | | | | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | | | | | | | | |
| 1, 2, 11, 18 | 71 | 2-Chloronaphthalene | ug/L | ANR | NA | NONE | NONE | 1,700 | 4,300 | NONE | 4300 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 72 | 4-Chlorophenyl phenyl ether | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 73 | Chrysene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 74 | Dibenzo(a,h)anthracene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 75 | 1,2-Dichlorobenzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 2,700 | 17,000 | 600 | 600 | Yes | No | No | NA | No | |
| 1, 2, 11, 18 | 76 | 1,3-Dichlorobenzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 400 | 2,600 | NONE | 2600 | Yes | No | No | NA | No | |
| 1, 2, 11, 18 | 77 | 1,4-Dichlorobenzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 400 | 2,600 | 5 | 5 | Yes | No | No | NA | No | |
| 1, 2, 11, 18 | 78 | 3,3'-Dichlorobenzidine | ug/L | ANR | NA | NONE | NONE | 0.04 | 0.077 | NONE | 0.077 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 79 | Diethyl phthalate | ug/L | ANR | NA | NONE | NONE | 23,000 | 120,000 | NONE | 120000 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 80 | Dimethyl phthalate | ug/L | ANR | NA | NONE | NONE | 313,000 | 2,900,000 | NONE | 2900000 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 81 | Di-n-butyl phthalate | ug/L | ANR | NA | NONE | NONE | 2,700 | 12,000 | NONE | 12000 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 83 | 2,6-Dinitrotoluene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 84 | Di-n-octyl phthalate | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 85 | 1,2-Diphenylhydrazine/Azobenzene | ug/L | ANR | NA | NONE | NONE | 0.04 | 0.54 | NONE | 0.54 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 86 | Fluoranthene | ug/L | ANR | NA | NONE | NONE | 300 | 370 | NONE | 370 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 87 | Fluorene | ug/L | ANR | NA | NONE | NONE | 1,300 | 14,000 | NONE | 14000 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 88 | Hexachlorobenzene | ug/L | ANR | NA | NONE | NONE | 0.00075 | 0.00077 | 1 | 0.00077 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 89 | Hexachlorobutadiene | ug/L | ANR | NA | NONE | NONE | 0.44 | 50 | NONE | 50 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 90 | Hexachlorocyclopentadiene | ug/L | ANR | NA | NONE | NONE | 240 | 17,000 | 50 | 50 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 91 | Hexachloroethane | ug/L | ANR | NA | NONE | NONE | 1.9 | 8.9 | NONE | 8.9 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 92 | Indeno(1,2,3-cd)Pyrene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 93 | Isophorone | ug/L | ANR | NA | NONE | NONE | 8.4 | 600 | NONE | 600 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 94 | Naphthalene | ug/L | Available Data <DL | 0.6 | NONE | NONE | NONE | NONE | NONE | NONE | Yes | No | NA | NA | NA | |
| 1, 2, 11, 18 | 95 | Nitrobenzene | ug/L | ANR | NA | NONE | NONE | 17 | 1,900 | NONE | 1900 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 97 | n-Nitroso-di-n-propylamine | ug/L | ANR | NA | NONE | NONE | 0.005 | 1.4 | NONE | 1.4 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 98 | N-Nitrosodiphenylamine | ug/L | ANR | NA | NONE | NONE | 5 | 16 | NONE | 16 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 99 | Phenanthrene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 100 | Pyrene | ug/L | ANR | NA | NONE | NONE | 960 | 11,000 | NONE | 11000 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 101 | 1,2,4-Trichlorobenzene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | 70 | 70 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 102 | Aldrin | ug/L | ANR | NA | 3 | NONE | 0.00013 | 0.00014 | NONE | 0.00014 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 104 | beta-BHC | ug/L | ANR | NA | NONE | NONE | 0.014 | 0.046 | NONE | 0.046 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 105 | gamma-BHC (Lindane) | ug/L | ANR | NA | 0.95 | NONE | 0.019 | 0.063 | 0.2 | 0.063 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 106 | delta-BHC | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 107 | Chlordane | ug/L | Available Data <DL | 0.6 | 2.4 | 0.0043 | 0.00057 | 0.00059 | 0.1 | 0.00059 | Yes | No | Yes | 0.026 | NA [‡] | |
| 1, 2, 11, 18 | 108 | 4,4'-DDT | ug/L | Available Data <DL | 0.6 | 1.1 | 0.001 | 0.00059 | 0.00059 | NONE | 0.00059 | Yes | No | Yes | 0.0016 | NA [‡] | |
| 1, 2, 11, 18 | 109 | 4,4'-DDE | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.00059 | 0.00059 | NONE | 0.00059 | Yes | No | Yes | 0.0019 | NA [‡] | |
| 1, 2, 11, 18 | 110 | 4,4'-DDD | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.00083 | 0.00084 | NONE | 0.00084 | Yes | No | Yes | 0.0044 | NA [‡] | |
| 1, 2, 11, 18 | 111 | Dieldrin | ug/L | Available Data <DL | 0.6 | 0.24 | 0.056 | 0.00014 | 0.00014 | NONE | 0.00014 | Yes | No | Yes | 0.0013 | NA [‡] | |
| 1, 2, 11, 18 | 112 | alpha-Endosulfan | ug/L | ANR | NA | 0.22 | 0.056 | 110 | 240 | NONE | 0.056 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 113 | beta-Endosulfan | ug/L | ANR | NA | 0.22 | 0.056 | 110 | 240 | NONE | 0.056 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 114 | Endosulfan Sulfate | ug/L | ANR | NA | NONE | NONE | 110 | 240 | NONE | 240 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 115 | Endrin | ug/L | ANR | NA | 0.086 | 0.036 | 0.76 | 0.81 | 2 | 0.036 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 116 | Endrin Aldehyde | ug/L | ANR | NA | NONE | NONE | 0.76 | 0.81 | NONE | 0.81 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 117 | Heptachlor | ug/L | ANR | NA | 0.52 | 0.0038 | 0.00021 | 0.00021 | 0.01 | 0.00021 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 118 | Heptachlor Epoxide | ug/L | ANR | NA | 0.52 | 0.0038 | 0.0001 | 0.00011 | 0.01 | 0.00011 | No | NA | NA | NA | NA | |
| 1, 2, 11, 18 | 119 | Aroclor 1016 | ug/L | Available Data <DL | 0.6 | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | Yes | No | Yes | 0.044 | NA [‡] | |
| 1, 2, 11, 18 | 120 | Aroclor 1221 | ug/L | Available Data <DL | 0.6 | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | Yes | No | Yes | 0.044 | NA [‡] | |
| 1, 2, 11, 18 | 121 | Aroclor 1232 | ug/L | Available Data <DL | 0.6 | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | Yes | No | Yes | 0.044 | NA [‡] | |
| 1, 2, 11, 18 | 122 | Aroclor 1242 | ug/L | Available Data <DL | 0.6 | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | Yes | No | Yes | 0.044 | NA [‡] | |
| 1, 2, 11, 18 | 123 | Aroclor 1248 | ug/L | Available Data <DL | 0.6 | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | Yes | No | Yes | 0.044 | NA [‡] | |

**TABLE F-1
REASONABLE POTENTIAL ANALYSIS - PRIORITY POLLUTANTS (OUTFALLS 001, 002, 011, AND 018)**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| Outfall | CTR | Constituent | Units | MEC | CV | Step 1: Water Quality Criteria, Determine C | | | | Basin Plan | C = Lowest Criteria | Step 2 | Step 3 | | | Step 4 |
|--------------|-----|--------------|-----------|--------------------|-----|---|---------------|------------------|-----------|------------|---------------------|----------------------------|---|------------------------------|---------------------------|-----------------|
| | | | | | | CTR CRITERIA | | | | | | Is Effluent Data Available | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | If DL > C, MEC = Min (DL) | MEC >= C |
| | | | | | | Freshwater | | Human Health | | | | | | | | |
| | | | | | | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | | | | | | | |
| 1, 2, 11, 18 | 124 | Aroclor 1254 | ug/L | Available Data <DL | 0.6 | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | Yes | No | Yes | 0.052 | NA [‡] |
| 1, 2, 11, 18 | 125 | Aroclor 1260 | ug/L | Available Data <DL | 0.6 | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | Yes | No | Yes | 0.052 | NA [‡] |
| 1, 2, 11, 18 | 126 | Toxaphene | ug/L | Available Data <DL | 0.6 | 0.73 | 0.0002 | 0.00073 | 0.00075 | 3 | 0.0002 | Yes | No | Yes | 0.054 | NA [‡] |
| 1, 2, 11, 18 | 127 | E. Coli | MPN/100ml | ANR | NA | NA | NA | NA | NA | 235 | 235 | No | NA | NA | NA | NA |

**TABLE F-2
REASONABLE POTENTIAL ANALYSIS - PRIORITY POLLUTANTS (OUTFALLS 003-007, 009, AND 010)**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| Outfall | CTR | Constituent | Units | MEC | CV | Step 1: Water Quality Criteria, Determine C | | | | Basin Plan | C = Lowest Criteria | Is Effluent Data Available | Step 3 | | | Step 4 MEC >= C |
|------------|------|---------------------------------|----------|--------------------|-----|---|---------------|------------------|-----------|------------|---------------------|----------------------------|---|------------------------------|---------------------------|--------------------|
| | | | | | | CTR CRITERIA | | | | | | | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | If DL > C, MEC = Min (DL) | |
| | | | | | | Freshwater | | Human Health | | | | | | | | |
| | | | | | | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | | | | | | | |
| 3-7, 9, 10 | 2 | Arsenic | ug/L | ANR | NA | 340 | 150 | NONE | NONE | 50 | 50 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 3 | Beryllium | ug/L | ANR | NA | NONE | NONE | Narrative | Narrative | 4 | 4 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 5a | Chromium | ug/L | ANR | NA | 550 | 180 | Narrative | Narrative | 50 | 50 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 5b | Chromium VI (Hexavalent) | ug/L | ANR | NA | 16 | 11 | Narrative | Narrative | NONE | 11 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 10 | Selenium | ug/L | 2.0 | 0.6 | Reserved | 5 | Narrative | Narrative | 50 | 5 | Yes | Yes | No | NA | No |
| 3-7, 9, 10 | 11 | Silver | ug/L | All Data Qualified | NA | 3.4 | NONE | NONE | NONE | NONE | 3.4 | No | No | No | NA | No |
| 3-7, 9, 10 | 15 | Asbestos > 10 um | Fibers/L | ANR | NA | NONE | NONE | 7,000,000 | NONE | 7,000,000 | 7000000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 17 | Acrolein | ug/L | ANR | NA | NONE | NONE | 320 | 780 | NONE | 780 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 18 | Acrylonitrile | ug/L | ANR | NA | NONE | NONE | 0.059 | 0.66 | NONE | 0.66 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 19 | Benzene | ug/L | ANR | NA | NONE | NONE | 1.2 | 71 | 1 | 1 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 20 | Bromoform | ug/L | ANR | NA | NONE | NONE | 4.3 | 360 | NONE | 360 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 21 | Carbon Tetrachloride | ug/L | ANR | NA | NONE | NONE | 0.25 | 4.4 | 0.5 | 0.5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 22 | Chlorobenzene | ug/L | ANR | NA | NONE | NONE | 680 | 21,000 | 70 | 70 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 23 | Dibromochloromethane | ug/L | ANR | NA | NONE | NONE | 0.401 | 34 | NONE | 34 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 24 | Chloroethane | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 25 | 2-Chloroethyl vinyl ether | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 26 | Chloroform | ug/L | ANR | NA | NONE | NONE | Reserved | Reserved | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 27 | Dichlorobromomethane | ug/L | ANR | NA | NONE | NONE | 0.56 | 46 | NONE | 46 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 28 | 1,1-Dichloroethane | ug/L | ANR | NA | NONE | NONE | NONE | NONE | 5 | 5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 29 | 1,2-Dichloroethane | ug/L | ANR | NA | NONE | NONE | 0.38 | 99 | 0.5 | 0.5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 30 | 1,1-Dichloroethene | ug/L | ANR | NA | NONE | NONE | 0.057 | 3.2 | 6 | 3.2 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 31 | 1,2-Dichloropropane | ug/L | ANR | NA | NONE | NONE | 0.52 | 39 | 5 | 5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 32 | cis-1,3-Dichloropropene | ug/L | ANR | NA | NONE | NONE | 10 | 1,700 | 0.5 | 0.5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 032a | trans-1,3-Dichloropropene | ug/L | ANR | NA | NONE | NONE | 10 | 1,700 | 0.5 | 0.5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 33 | Ethylbenzene | ug/L | ANR | NA | NONE | NONE | 3,100 | 29,000 | 700 | 700 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 34 | Bromomethane (Methyl Bromide) | ug/L | ANR | NA | NONE | NONE | 48 | 4,000 | NONE | 4000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 35 | Chloromethane (Methyl Chloride) | ug/L | ANR | NA | NONE | NONE | Narrative | Narrative | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 36 | Methylene chloride | ug/L | ANR | NA | NONE | NONE | 4.7 | 1,600 | NONE | 1600 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 37 | 1,1,2,2-Tetrachloroethane | ug/L | ANR | NA | NONE | NONE | 0.17 | 11 | 1 | 1 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 38 | Tetrachloroethene | ug/L | ANR | NA | NONE | NONE | 0.8 | 8.85 | 5 | 5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 39 | Toluene | ug/L | ANR | NA | NONE | NONE | 6,800 | 200,000 | 150 | 150 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 40 | trans-1,2-Dichloroethene | ug/L | ANR | NA | NONE | NONE | 700 | 140,000 | 10 | 10 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 41 | 1,1,1-Trichloroethane | ug/L | ANR | NA | NONE | NONE | Narrative | Narrative | 200 | 200 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 42 | 1,1,2-trichloroethane | ug/L | ANR | NA | NONE | NONE | 0.6 | 42 | 5 | 5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 43 | Trichloroethene | ug/L | ANR | NA | NONE | NONE | 2.7 | 81 | 5 | 5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 44 | Vinyl chloride | ug/L | ANR | NA | NONE | NONE | 2 | 525 | 0.5 | 0.5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 45 | 2-chlorophenol | ug/L | ANR | NA | NONE | NONE | 120 | 400 | NONE | 400 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 46 | 2,4-Dichlorophenol | ug/L | ANR | NA | NONE | NONE | 93 | 790 | NONE | 790 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 47 | 2,4-dimethylphenol | ug/L | ANR | NA | NONE | NONE | 540 | 2,300 | NONE | 2300 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 48 | 2-Methyl-4,6-dinitrophenol | ug/L | ANR | NA | NONE | NONE | 13.4 | 765 | NONE | 765 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 49 | 2,4-dinitrophenol | ug/L | ANR | NA | NONE | NONE | 70 | 14,000 | NONE | 14000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 50 | 2-nitrophenol | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 51 | 4-nitrophenol | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 52 | 4-Chloro-3-methylphenol | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 53 | Pentachlorophenol | ug/L | ANR | NA | pH dependent | pH dependent | 0.28 | 8.2 | 1 | 1 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 54 | Phenol | ug/L | ANR | NA | NONE | NONE | 21,000 | 4,600,000 | NONE | 4600000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 55 | 2,4,6-Trichlorophenol | ug/L | ANR | NA | NONE | NONE | 2.1 | 6.5 | NONE | 6.5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 56 | Acenaphthene | ug/L | ANR | NA | NONE | NONE | 1,200 | 2,700 | NONE | 2700 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 57 | Acenaphthylene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |

**TABLE F-2
REASONABLE POTENTIAL ANALYSIS - PRIORITY POLLUTANTS (OUTFALLS 003-007, 009, AND 010)**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| Outfall | CTR | Constituent | Units | MEC | CV | Step 1: Water Quality Criteria, Determine C | | | | Basin Plan | C = Lowest Criteria | Step 2 Is Effluent Data Available | Step 3 | | | Step 4 MEC >= C |
|------------|-----|----------------------------------|-------|-----|----|---|---------------|------------------|-----------|------------|---------------------|--------------------------------------|---|------------------------------|---------------------------|--------------------|
| | | | | | | CTR CRITERIA | | | | | | | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | If DL > C, MEC = Min (DL) | |
| | | | | | | Freshwater | | Human Health | | | | | | | | |
| | | | | | | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | | | | | | | |
| 3-7, 9, 10 | 58 | Anthracene | ug/L | ANR | NA | NONE | NONE | 9,600 | 110,000 | NONE | 110000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 59 | Benzidine | ug/L | ANR | NA | NONE | NONE | 0.00012 | 0.00054 | NONE | 0.00054 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 60 | Benzo(a)Anthracene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 61 | Benzo(a)Pyrene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | 0.2 | 0.049 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 62 | Benzo(b)Fluoranthene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 63 | Benzo(g,h,i)Perylene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 64 | Benzo(k)Fluoranthene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 65 | Bis (2-Chloroethoxy) methane | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 66 | bis (2-Chloroethyl) ether | ug/L | ANR | NA | NONE | NONE | 0.031 | 1.4 | NONE | 1.4 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 67 | Bis (2-Chloroisopropyl) Ether | ug/L | ANR | NA | NONE | NONE | 1,400 | 170,000 | NONE | 170000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 68 | bis (2-ethylhexyl) Phthalate | ug/L | ANR | NA | NONE | NONE | 1.8 | 5.9 | 4 | 4 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 69 | 4-Bromophenyl phenyl ether | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 70 | Butyl benzylphthalate | ug/L | ANR | NA | NONE | NONE | 3,000 | 5,200 | NONE | 5200 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 71 | 2-Chloronaphthalene | ug/L | ANR | NA | NONE | NONE | 1,700 | 4,300 | NONE | 4300 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 72 | 4-Chlorophenyl phenyl ether | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 73 | Chrysene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 74 | Dibenzo(a,h)anthracene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 75 | 1,2-Dichlorobenzene | ug/L | ANR | NA | NONE | NONE | 2,700 | 17,000 | 600 | 600 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 76 | 1,3-Dichlorobenzene | ug/L | ANR | NA | NONE | NONE | 400 | 2,600 | NONE | 2600 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 77 | 1,4-Dichlorobenzene | ug/L | ANR | NA | NONE | NONE | 400 | 2,600 | 5 | 5 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 78 | 3,3'-Dichlorobenzidine | ug/L | ANR | NA | NONE | NONE | 0.04 | 0.077 | NONE | 0.077 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 79 | Diethyl phthalate | ug/L | ANR | NA | NONE | NONE | 23,000 | 120,000 | NONE | 120000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 80 | Dimethyl phthalate | ug/L | ANR | NA | NONE | NONE | 313,000 | 2,900,000 | NONE | 2900000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 81 | Di-n-butyl phthalate | ug/L | ANR | NA | NONE | NONE | 2,700 | 12,000 | NONE | 12000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 82 | 2,4-Dinitrotoluene | ug/L | ANR | NA | NONE | NONE | 0.11 | 9.1 | NONE | 9.1 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 83 | 2,6-Dinitrotoluene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 84 | Di-n-octyl phthalate | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 85 | 1,2-Diphenylhydrazine/Azobenzene | ug/L | ANR | NA | NONE | NONE | 0.04 | 0.54 | NONE | 0.54 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 86 | Fluoranthene | ug/L | ANR | NA | NONE | NONE | 300 | 370 | NONE | 370 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 87 | Fluorene | ug/L | ANR | NA | NONE | NONE | 1,300 | 14,000 | NONE | 14000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 88 | Hexachlorobenzene | ug/L | ANR | NA | NONE | NONE | 0.00075 | 0.00077 | 1 | 0.00077 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 89 | Hexachlorobutadiene | ug/L | ANR | NA | NONE | NONE | 0.44 | 50 | NONE | 50 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 90 | Hexachlorocyclopentadiene | ug/L | ANR | NA | NONE | NONE | 240 | 17,000 | 50 | 50 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 91 | Hexachloroethane | ug/L | ANR | NA | NONE | NONE | 1.9 | 8.9 | NONE | 8.9 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 92 | Indeno(1,2,3-cd)Pyrene | ug/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 93 | Isophorone | ug/L | ANR | NA | NONE | NONE | 8.4 | 600 | NONE | 600 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 94 | Naphthalene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 95 | Nitrobenzene | ug/L | ANR | NA | NONE | NONE | 17 | 1,900 | NONE | 1900 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 96 | N-Nitrosodimethylamine | ug/L | ANR | NA | NONE | NONE | 0.00069 | 8.1 | NONE | 8.1 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 97 | n-Nitroso-di-n-propylamine | ug/L | ANR | NA | NONE | NONE | 0.005 | 1.4 | NONE | 1.4 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 98 | N-Nitrosodiphenylamine | ug/L | ANR | NA | NONE | NONE | 5 | 16 | NONE | 16 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 99 | Phenanthrene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 100 | Pyrene | ug/L | ANR | NA | NONE | NONE | 960 | 11,000 | NONE | 11000 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 101 | 1,2,4-Trichlorobenzene | ug/L | ANR | NA | NONE | NONE | NONE | NONE | 70 | 70 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 102 | Aldrin | ug/L | ANR | NA | 3 | NONE | 0.00013 | 0.00014 | NONE | 0.00014 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 103 | alpha-BHC | ug/L | ANR | NA | NONE | NONE | 0.0039 | 0.013 | NONE | 0.013 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 104 | beta-BHC | ug/L | ANR | NA | NONE | NONE | 0.014 | 0.046 | NONE | 0.046 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 105 | gamma-BHC (Lindane) | ug/L | ANR | NA | 0.95 | NONE | 0.019 | 0.063 | 0.2 | 0.063 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 106 | delta-BHC | ug/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |

**TABLE F-2
REASONABLE POTENTIAL ANALYSIS - PRIORITY POLLUTANTS (OUTFALLS 003-007, 009, AND 010)**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| Outfall | CTR | Constituent | Units | MEC | CV | Step 1: Water Quality Criteria, Determine C | | | | Basin Plan | C = Lowest Criteria | Step 2 | | Step 3 | | Step 4 |
|------------|-----|--------------------|-----------|-----|----|---|---------------|------------------|-----------|------------|---------------------|----------------------------|---|------------------------------|---------------------------|----------|
| | | | | | | CTR CRITERIA | | | | | | Is Effluent Data Available | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | If DL > C, MEC = Min (DL) | MEC >= C |
| | | | | | | Freshwater | | Human Health | | | | | | | | |
| | | | | | | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | | | | | | | |
| 3-7, 9, 10 | 107 | Chlordane | ug/L | ANR | NA | 2.4 | 0.0043 | 0.00057 | 0.00059 | 0.1 | 0.00059 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 108 | 4,4'-DDT | ug/L | ANR | NA | 1.1 | 0.001 | 0.00059 | 0.00059 | NONE | 0.00059 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 109 | 4,4'-DDE | ug/L | ANR | NA | NONE | NONE | 0.00059 | 0.00059 | NONE | 0.00059 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 110 | 4,4'-DDD | ug/L | ANR | NA | NONE | NONE | 0.00083 | 0.00084 | NONE | 0.00084 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 111 | Dieldrin | ug/L | ANR | NA | 0.24 | 0.056 | 0.00014 | 0.00014 | NONE | 0.00014 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 112 | alpha-Endosulfan | ug/L | ANR | NA | 0.22 | 0.056 | 110 | 240 | NONE | 0.056 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 113 | beta-Endosulfan | ug/L | ANR | NA | 0.22 | 0.056 | 110 | 240 | NONE | 0.056 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 114 | Endosulfan Sulfate | ug/L | ANR | NA | NONE | NONE | 110 | 240 | NONE | 240 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 115 | Endrin | ug/L | ANR | NA | 0.086 | 0.036 | 0.76 | 0.81 | 2 | 0.036 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 116 | Endrin Aldehyde | ug/L | ANR | NA | NONE | NONE | 0.76 | 0.81 | NONE | 0.81 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 117 | Heptachlor | ug/L | ANR | NA | 0.52 | 0.0038 | 0.00021 | 0.00021 | 0.01 | 0.00021 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 118 | Heptachlor Epoxide | ug/L | ANR | NA | 0.52 | 0.0038 | 0.0001 | 0.00011 | 0.01 | 0.00011 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 119 | Aroclor 1016 | ug/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 120 | Aroclor 1221 | ug/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 121 | Aroclor 1232 | ug/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 122 | Aroclor 1242 | ug/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 123 | Aroclor 1248 | ug/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 124 | Aroclor 1254 | ug/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 125 | Aroclor 1260 | ug/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 126 | Toxaphene | ug/L | ANR | NA | 0.73 | 0.0002 | 0.00073 | 0.00075 | 3 | 0.0002 | No | NA | NA | NA | NA |
| 3-7, 9, 10 | 127 | E. Coli | MPN/100ml | ANR | NA | NA | NA | NA | NA | 235 | 235 | No | NA | NA | NA | NA |

TABLE F-3
 REASONABLE POTENTIAL ANALYSIS - NON-PRIORITY POLLUTANTS (OUTFALLS 003-007, 009, AND 010)

FOURTH QUARTER 2023
 THE BOEING COMPANY
 SANTA SUSANA FIELD LABORATORY
 NPDES PERMIT CA0001309

| Outfall | Constituent | Monitoring | Units | Number of Samples | MEC | CV | Multiplier | Projected Maximum Effluent Concentration (99/99) | Dilution Ratio | Background Concentration | Projected Maximum Receiving Water Concentration | Step 1, Determine Water Quality Objectives | BU - Beneficial use protection NC - Human noncarcinogen AP - Aquatic life protection TMDL - Total Maximum Daily Load |
|------------|------------------------|------------|-------|-------------------|-----|------|------------|--|----------------|--------------------------|---|--|---|
| 3-7, 9, 10 | Total Suspended Solids | Annual | mg/L | 1 | 260 | 0.60 | 13.20 | 3,431.19 | 0 | 0 | 3,431.19 | 45 | BU |

**TABLE F-4
REASONABLE POTENTIAL ANALYSIS - PRIORITY POLLUTANTS (OUTFALL 008)**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| Outfall | CTR | Constituent | Units | MEC | CV | Step 1: Water Quality Criteria, Determine C | | | | | C = Lowest Criteria | Is Effluent Data Available | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | If DL > C, MEC = Min (DL) | Step 4 MEC >= C |
|---------|------|---------------------------------|----------|--------------------|-----|---|---------------|------------------|-----------|----------------------------|---------------------|----------------------------|---|------------------------------|---------------------------|--------------------|
| | | | | | | CTR CRITERIA | | | | Basin Plan Title 22 GWR | | | | | | |
| | | | | | | Freshwater | | Human Health | | | | | | | | |
| | | | | | | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | | | | | | | |
| 8 | 002 | Arsenic | µg/L | ANR | NA | 340 | 150 | NONE | NONE | 50 | 50 | No | NA | NA | NA | NA |
| 8 | 003 | Beryllium | µg/L | ANR | NA | NONE | NONE | Narrative | Narrative | 4 | 4 | No | NA | NA | NA | NA |
| 8 | 005a | Chromium III | µg/L | ANR | NA | 550 | 180 | Narrative | Narrative | 50 | 50 | No | NA | NA | NA | NA |
| 8 | 005b | Chromium VI | µg/L | ANR | NA | 16 | 11 | Narrative | Narrative | NONE | 11 | No | NA | NA | NA | NA |
| 8 | 011 | Silver | µg/L | Available Data <DL | 0.6 | 3.4 | NONE | NONE | NONE | NONE | 3.4 | Yes | No | No | NA | No |
| 8 | 015 | Asbestos > 10 um | Fibers/L | ANR | NA | NONE | NONE | 7,000,000 | NONE | 7,000,000 | 7,000,000 | No | NA | NA | NA | NA |
| 8 | 017 | Acrolein | µg/L | ANR | NA | NONE | NONE | 320 | 780 | NONE | 780 | No | NA | NA | NA | NA |
| 8 | 018 | Acrylonitrile | µg/L | ANR | NA | NONE | NONE | 0.059 | 0.66 | NONE | 0.66 | No | NA | NA | NA | NA |
| 8 | 019 | Benzene | µg/L | ANR | NA | NONE | NONE | 1.2 | 71 | 1 | 1 | No | NA | NA | NA | NA |
| 8 | 020 | Bromoform | µg/L | ANR | NA | NONE | NONE | 4.3 | 360 | NONE | 360 | No | NA | NA | NA | NA |
| 8 | 021 | Carbon Tetrachloride | µg/L | ANR | NA | NONE | NONE | 0.25 | 4.4 | 0.5 | 0.5 | No | NA | NA | NA | NA |
| 8 | 022 | Chlorobenzene | µg/L | ANR | NA | NONE | NONE | 680 | 21,000 | 70 | 70 | No | NA | NA | NA | NA |
| 8 | 023 | Dibromochloromethane | µg/L | ANR | NA | NONE | NONE | 0.401 | 34 | NONE | 34 | No | NA | NA | NA | NA |
| 8 | 024 | Chloroethane | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 025 | 2-Chloroethyl vinyl ether | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 026 | Chloroform | µg/L | ANR | NA | NONE | NONE | Reserved | Reserved | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 027 | Dichlorobromomethane | µg/L | ANR | NA | NONE | NONE | 0.56 | 46 | NONE | 46 | No | NA | NA | NA | NA |
| 8 | 028 | 1,1-Dichloroethane | µg/L | ANR | NA | NONE | NONE | NONE | NONE | 5 | 5 | No | NA | NA | NA | NA |
| 8 | 029 | 1,2-Dichloroethane | µg/L | ANR | NA | NONE | NONE | 0.38 | 99 | 0.5 | 0.5 | No | NA | NA | NA | NA |
| 8 | 030 | 1,1-Dichloroethene | µg/L | ANR | NA | NONE | NONE | 0.057 | 3.2 | 6 | 3.2 | No | NA | NA | NA | NA |
| 8 | 031 | 1,2-Dichloropropane | µg/L | ANR | NA | NONE | NONE | 0.52 | 39 | 5 | 5 | No | NA | NA | NA | NA |
| 8 | 032 | cis-1,3-Dichloropropene | µg/L | ANR | NA | NONE | NONE | 10 | 1,700 | 0.5 | 0.5 | No | NA | NA | NA | NA |
| 8 | 032a | trans-1,3-Dichloropropene | µg/L | ANR | NA | NONE | NONE | 10 | 1,700 | 0.5 | 0.5 | No | NA | NA | NA | NA |
| 8 | 033 | Ethylbenzene | µg/L | ANR | NA | NONE | NONE | 3,100 | 29,000 | 700 | 700 | No | NA | NA | NA | NA |
| 8 | 034 | Bromomethane | µg/L | ANR | NA | NONE | NONE | 48 | 4,000 | NONE | 4,000 | No | NA | NA | NA | NA |
| 8 | 035 | Chloromethane (Methyl Chloride) | µg/L | ANR | NA | NONE | NONE | Narrative | Narrative | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 036 | Methylene chloride | µg/L | ANR | NA | NONE | NONE | 4.7 | 1,600 | NONE | 1,600 | No | NA | NA | NA | NA |
| 8 | 037 | 1,1,2,2-Tetrachloroethane | µg/L | ANR | NA | NONE | NONE | 0.17 | 11 | 1 | 1 | No | NA | NA | NA | NA |
| 8 | 038 | Tetrachloroethene | µg/L | ANR | NA | NONE | NONE | 0.8 | 8.85 | 5 | 5 | No | NA | NA | NA | NA |
| 8 | 039 | Toluene | µg/L | ANR | NA | NONE | NONE | 6,800 | 200,000 | 150 | 150 | No | NA | NA | NA | NA |
| 8 | 040 | trans-1,2-Dichloroethene | µg/L | ANR | NA | NONE | NONE | 700 | 140,000 | 10 | 10 | No | NA | NA | NA | NA |
| 8 | 041 | 1,1,1-Trichloroethane | µg/L | ANR | NA | NONE | NONE | Narrative | Narrative | 200 | 200 | No | NA | NA | NA | NA |
| 8 | 042 | 1,1,2-trichloroethane | µg/L | ANR | NA | NONE | NONE | 0.6 | 42 | 5 | 5 | No | NA | NA | NA | NA |
| 8 | 043 | Trichloroethene | µg/L | ANR | NA | NONE | NONE | 2.7 | 81 | 5 | 5 | No | NA | NA | NA | NA |
| 8 | 044 | Vinyl chloride | µg/L | ANR | NA | NONE | NONE | 2 | 525 | 0.5 | 0.5 | No | NA | NA | NA | NA |
| 8 | 045 | 2-chlorophenol | µg/L | ANR | NA | NONE | NONE | 120 | 400 | NONE | 400 | No | NA | NA | NA | NA |
| 8 | 046 | 2,4-Dichlorophenol | µg/L | ANR | NA | NONE | NONE | 93 | 790 | NONE | 790 | No | NA | NA | NA | NA |
| 8 | 047 | 2,4-dimethylphenol | µg/L | ANR | NA | NONE | NONE | 540 | 2,300 | NONE | 2,300 | No | NA | NA | NA | NA |
| 8 | 048 | 2-Methyl-4,6-dinitrophenol | µg/L | ANR | NA | NONE | NONE | 13.4 | 765 | NONE | 765 | No | NA | NA | NA | NA |
| 8 | 049 | 2,4-dinitrophenol | µg/L | ANR | NA | NONE | NONE | 70 | 14,000 | NONE | 14,000 | No | NA | NA | NA | NA |
| 8 | 050 | 2-nitrophenol | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 051 | 4-nitrophenol | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 052 | 4-Chloro-3-methylphenol | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 053 | Pentachlorophenol | µg/L | ANR | NA | pH dependent | pH dependent | 0.28 | 8.2 | 1 | 1 | No | NA | NA | NA | NA |
| 8 | 054 | Phenol | µg/L | ANR | NA | NONE | NONE | 21,000 | 4,600,000 | NONE | 4,600,000 | No | NA | NA | NA | NA |
| 8 | 055 | 2,4,6-Trichlorophenol | µg/L | ANR | NA | NONE | NONE | 2.1 | 6.5 | NONE | 6.5 | No | NA | NA | NA | NA |
| 8 | 056 | Acenaphthene | µg/L | ANR | NA | NONE | NONE | 1,200 | 2,700 | NONE | 2,700 | No | NA | NA | NA | NA |
| 8 | 057 | Acenaphthylene | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 058 | Anthracene | µg/L | ANR | NA | NONE | NONE | 9,600 | 110,000 | NONE | 110,000 | No | NA | NA | NA | NA |

**TABLE F-4
REASONABLE POTENTIAL ANALYSIS - PRIORITY POLLUTANTS (OUTFALL 008)**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| Outfall | CTR | Constituent | Units | MEC | CV | Step 1: Water Quality Criteria, Determine C | | | | | C = Lowest Criteria | Step 2 Is Effluent Data Available | Step 3 | | | Step 4 MEC >= C |
|---------|-----|------------------------------|-------|-----|----|---|---------------|------------------|-----------|----------------------------|---------------------|--------------------------------------|---|------------------------------|---------------------------|--------------------|
| | | | | | | CTR CRITERIA | | | | Basin Plan Title 22 GWR | | | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | If DL > C, MEC = Min (DL) | |
| | | | | | | Freshwater | | Human Health | | | | | | | | |
| | | | | | | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | | | | | | | |
| 8 | 059 | Benzidine | µg/L | ANR | NA | NONE | NONE | 0.00012 | 0.00054 | NONE | 0.00054 | No | NA | NA | NA | NA |
| 8 | 060 | Benzo(a)Anthracene | µg/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 8 | 061 | Benzo(a)Pyrene | µg/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | 0.2 | 0.049 | No | NA | NA | NA | NA |
| 8 | 062 | Benzo(b)Fluoranthene | µg/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 8 | 063 | Benzo(g,h,i)Perylene | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 064 | Benzo(k)Fluoranthene | µg/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 8 | 065 | Bis(2-Chloroethoxy) methane | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 066 | bis (2-Chloroethyl) ether | µg/L | ANR | NA | NONE | NONE | 0.031 | 1.4 | NONE | 1.4 | No | NA | NA | NA | NA |
| 8 | 067 | Bis(2-Chloroisopropyl) Ether | µg/L | ANR | NA | NONE | NONE | 1,400 | 170,000 | NONE | 170,000 | No | NA | NA | NA | NA |
| 8 | 068 | bis (2-ethylhexyl) Phthalate | µg/L | ANR | NA | NONE | NONE | 1.8 | 5.9 | 4 | 4 | No | NA | NA | NA | NA |
| 8 | 069 | 4-Bromophenylphenylether | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 070 | Butylbenzylphthalate | µg/L | ANR | NA | NONE | NONE | 3,000 | 5,200 | NONE | 5,200 | No | NA | NA | NA | NA |
| 8 | 071 | 2-Chloronaphthalene | µg/L | ANR | NA | NONE | NONE | 1,700 | 4,300 | NONE | 4,300 | No | NA | NA | NA | NA |
| 8 | 072 | 4-Chlorophenylphenylether | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 073 | Chrysene | µg/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 8 | 074 | Dibenzo(a,h)Anthracene | µg/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 8 | 075 | 1,2-Dichlorobenzene | µg/L | ANR | NA | NONE | NONE | 2,700 | 17,000 | 600 | 600 | No | NA | NA | NA | NA |
| 8 | 076 | 1,3-Dichlorobenzene | µg/L | ANR | NA | NONE | NONE | 400 | 2,600 | NONE | 2,600 | No | NA | NA | NA | NA |
| 8 | 077 | 1,4-Dichlorobenzene | µg/L | ANR | NA | NONE | NONE | 400 | 2,600 | 5 | 5 | No | NA | NA | NA | NA |
| 8 | 078 | 3,3'-Dichlorobenzidine | µg/L | ANR | NA | NONE | NONE | 0.04 | 0.077 | NONE | 0.077 | No | NA | NA | NA | NA |
| 8 | 079 | Diethyl phthalate | µg/L | ANR | NA | NONE | NONE | 23,000 | 120,000 | NONE | 120,000 | No | NA | NA | NA | NA |
| 8 | 080 | Dimethylphthalate | µg/L | ANR | NA | NONE | NONE | 313,000 | 2,900,000 | NONE | 2,900,000 | No | NA | NA | NA | NA |
| 8 | 081 | Di-n-butylphthalate | µg/L | ANR | NA | NONE | NONE | 2,700 | 12,000 | NONE | 12,000 | No | NA | NA | NA | NA |
| 8 | 082 | 2,4-Dinitrotoluene | µg/L | ANR | NA | NONE | NONE | 0.11 | 9.1 | NONE | 9.1 | No | NA | NA | NA | NA |
| 8 | 083 | 2,6-Dinitrotoluene | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 084 | Di-n-octylphthalate | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 085 | 1,2-Diphenylhydrazine | µg/L | ANR | NA | NONE | NONE | 0.04 | 0.54 | NONE | 0.54 | No | NA | NA | NA | NA |
| 8 | 086 | Fluoranthene | µg/L | ANR | NA | NONE | NONE | 300 | 370 | NONE | 370 | No | NA | NA | NA | NA |
| 8 | 087 | Fluorene | µg/L | ANR | NA | NONE | NONE | 1,300 | 14,000 | NONE | 14,000 | No | NA | NA | NA | NA |
| 8 | 088 | Hexachlorobenzene | µg/L | ANR | NA | NONE | NONE | 0.00075 | 0.00077 | 1 | 0.00077 | No | NA | NA | NA | NA |
| 8 | 089 | Hexachlorobutadiene | µg/L | ANR | NA | NONE | NONE | 0.44 | 50 | NONE | 50 | No | NA | NA | NA | NA |
| 8 | 090 | Hexachlorocyclopentadiene | µg/L | ANR | NA | NONE | NONE | 240 | 17,000 | 50 | 50 | No | NA | NA | NA | NA |
| 8 | 091 | Hexachloroethane | µg/L | ANR | NA | NONE | NONE | 1.9 | 8.9 | NONE | 8.9 | No | NA | NA | NA | NA |
| 8 | 092 | Indeno(1,2,3-cd)Pyrene | µg/L | ANR | NA | NONE | NONE | 0.0044 | 0.049 | NONE | 0.049 | No | NA | NA | NA | NA |
| 8 | 093 | Isophorone | µg/L | ANR | NA | NONE | NONE | 8.4 | 600 | NONE | 600 | No | NA | NA | NA | NA |
| 8 | 094 | Naphthalene | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 095 | Nitrobenzene | µg/L | ANR | NA | NONE | NONE | 17 | 1,900 | NONE | 1,900 | No | NA | NA | NA | NA |
| 8 | 096 | N-Nitrosodimethylamine | µg/L | ANR | NA | NONE | NONE | 0.00069 | 8.1 | NONE | 8.1 | No | NA | NA | NA | NA |
| 8 | 097 | n-Nitroso-di-n-propylamine | µg/L | ANR | NA | NONE | NONE | 0.005 | 1.4 | NONE | 1.4 | No | NA | NA | NA | NA |
| 8 | 098 | N-Nitrosodiphenylamine | µg/L | ANR | NA | NONE | NONE | 5 | 16 | NONE | 16 | No | NA | NA | NA | NA |
| 8 | 099 | Phenanthrene | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 100 | Pyrene | µg/L | ANR | NA | NONE | NONE | 960 | 11,000 | NONE | 11,000 | No | NA | NA | NA | NA |
| 8 | 101 | 1,2,4-Trichlorobenzene | µg/L | ANR | NA | NONE | NONE | NONE | NONE | 70 | 70 | No | NA | NA | NA | NA |
| 8 | 102 | Aldrin | µg/L | ANR | NA | 3 | NONE | 0.00013 | 0.00014 | NONE | 0.00014 | No | NA | NA | NA | NA |
| 8 | 103 | alpha-BHC | µg/L | ANR | NA | NONE | NONE | 0.0039 | 0.013 | NONE | 0.013 | No | NA | NA | NA | NA |
| 8 | 104 | beta-BHC | µg/L | ANR | NA | NONE | NONE | 0.014 | 0.046 | NONE | 0.046 | No | NA | NA | NA | NA |
| 8 | 105 | gamma-BHC (Lindane) | µg/L | ANR | NA | 0.95 | NONE | 0.019 | 0.063 | 0.2 | 0.063 | No | NA | NA | NA | NA |
| 8 | 106 | delta-BHC | µg/L | ANR | NA | NONE | NONE | NONE | NONE | NONE | NONE | No | NA | NA | NA | NA |
| 8 | 107 | Chlordane | µg/L | ANR | NA | 2.4 | 0.0043 | 0.00057 | 0.00059 | 0.1 | 0.00059 | No | NA | NA | NA | NA |

**TABLE F-4
REASONABLE POTENTIAL ANALYSIS - PRIORITY POLLUTANTS (OUTFALL 008)**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| Outfall | CTR | Constituent | Units | MEC | CV | Step 1: Water Quality Criteria, Determine C | | | | Basin Plan Title 22 GWR | C = Lowest Criteria | Step 2 Is Effluent Data Available | Step 3 | | | Step 4 MEC >= C | | |
|---------|-----|--------------------|-----------|-----|----|---|---------------|------------------|-----------|----------------------------|------------------------|---|------------------------|---|---|--------------------|------------------------------------|------------------------------|
| | | | | | | CTR CRITERIA | | | | | | | C = Lowest Criteria | Step 2 Is Effluent Data Available | Was Constituent Detected in Effluent Data | | Are all Detection Limits > C | If DL > C, MEC = Min (DL) |
| | | | | | | Freshwater | | Human Health | | | | | | | | | | |
| | | | | | | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | | | | | | | | | |
| 8 | 108 | 4,4'-DDT | µg/L | ANR | NA | 1.1 | 0.001 | 0.00059 | 0.00059 | NONE | 0.00059 | No | NA | NA | NA | NA | | |
| 8 | 109 | 4,4'-DDE | µg/L | ANR | NA | NONE | NONE | 0.00059 | 0.00059 | NONE | 0.00059 | No | NA | NA | NA | NA | | |
| 8 | 110 | 4,4'-DDD | µg/L | ANR | NA | NONE | NONE | 0.00083 | 0.00084 | NONE | 0.00084 | No | NA | NA | NA | NA | | |
| 8 | 111 | Dieldrin | µg/L | ANR | NA | 0.24 | 0.056 | 0.00014 | 0.00014 | NONE | 0.00014 | No | NA | NA | NA | NA | | |
| 8 | 112 | Endosulfan I | µg/L | ANR | NA | 0.22 | 0.056 | 110 | 240 | NONE | 0.056 | No | NA | NA | NA | NA | | |
| 8 | 113 | Endosulfan II | µg/L | ANR | NA | 0.22 | 0.056 | 110 | 240 | NONE | 0.056 | No | NA | NA | NA | NA | | |
| 8 | 114 | Endosulfan Sulfate | µg/L | ANR | NA | NONE | NONE | 110 | 240 | NONE | 240 | No | NA | NA | NA | NA | | |
| 8 | 115 | Endrin | µg/L | ANR | NA | 0.086 | 0.036 | 0.76 | 0.81 | 2 | 0.036 | No | NA | NA | NA | NA | | |
| 8 | 116 | Endrin Aldehyde | µg/L | ANR | NA | NONE | NONE | 0.76 | 0.81 | NONE | 0.81 | No | NA | NA | NA | NA | | |
| 8 | 117 | Heptachlor | µg/L | ANR | NA | 0.52 | 0.0038 | 0.00021 | 0.00021 | 0.01 | 0.00021 | No | NA | NA | NA | NA | | |
| 8 | 118 | Heptachlor Epoxide | µg/L | ANR | NA | 0.52 | 0.0038 | 0.0001 | 0.00011 | 0.01 | 0.00011 | No | NA | NA | NA | NA | | |
| 8 | 119 | Aroclor-1016 | µg/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA | | |
| 8 | 120 | Aroclor-1221 | µg/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA | | |
| 8 | 121 | Aroclor-1232 | µg/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA | | |
| 8 | 122 | Aroclor-1242 | µg/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA | | |
| 8 | 123 | Aroclor-1248 | µg/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA | | |
| 8 | 124 | Aroclor-1254 | µg/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA | | |
| 8 | 125 | Aroclor-1260 | µg/L | ANR | NA | NONE | 0.014 | 0.00017 | 0.00017 | 0.5 | 0.00017 | No | NA | NA | NA | NA | | |
| 8 | 126 | Toxaphene | µg/L | ANR | NA | 0.73 | 0.0002 | 0.00073 | 0.00075 | 3 | 0.0002 | No | NA | NA | NA | NA | | |
| 8 | 127 | E. Coli | MPN/100ml | ANR | NA | NA | NA | NA | NA | 235 | 235 | No | NA | NA | NA | NA | | |

**TABLE F-5
REASONABLE POTENTIAL ANALYSIS - NON-PRIORITY POLLUTANTS (OUTFALL 008)**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

| Outfall | Constituent | Monitoring | Units | Number of Samples | MEC | CV | Multiplier | Projected Maximum Effluent Concentration (99/99) | Dilution Ratio | Background Concentration | Projected Maximum Receiving Water Concentration | Step 1, Determine Water Quality Objectives | BU - Beneficial use protection NC - Human noncarcinogen AP - Aquatic life protection |
|----------------|------------------------|-------------------|--------------|--------------------------|------------|-----------|-------------------|---|-----------------------|---------------------------------|--|---|---|
| 8 | Total Suspended Solids | Discharge | mg/L | 1 | 6.2 | 0.60 | 13.20 | 81.82 | 0 | 0 | 81.82 | 45 | BU |

APPENDIX G

Fourth Quarter 2023 Receiving Water Surveys

**TABLE G
RECEIVING WATER SURVEYS**

**FOURTH QUARTER 2023
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

October 1 through December 31, 2023

Observation Requirements: Observations are only made during discharge on a monthly basis when Outfall 002 (Bell Creek), Outfall 008 (Dayton Creek), and Outfall 009 (Arroyo Simi) are flowing.

| FOURTH QUARTER 2023 ARROYO SIMI OBSERVATIONS AT ARROYO SIMI | | | |
|---|---------|----------|----------------------------------|
| ARROYO SIMI OBSERVATIONS | OCTOBER | NOVEMBER | DECEMBER |
| Date and time of inspection | N/A | N/A | 12/21/2023, 08:15 |
| Weather conditions | N/A | N/A | Cloudy, rain showers, cool, 58°F |
| Color of water | N/A | N/A | Brown |
| Appearance of oil films or grease, or floatable materials | N/A | N/A | None |
| Extent of visible turbidity or color patches | N/A | N/A | Uniform opaque |
| Description of odor, if any | N/A | N/A | None |
| Presence or activity of California Least Tern or California Brown Pelican | N/A | N/A | No |
| Upstream Surface Water Temperature* | N/A | N/A | 57.1 |
| Upstream Surface Water pH* | N/A | N/A | 7.87 |

Notes:

N/A = not applicable. Since Outfall 009 did not flow during the months of October and November, no monthly inspection was required at Arroyo Simi during those months.

* = These data are collected to assist in determining compliance with receiving water limitations during the quarterly sampling. When upstream flow is present, upstream data are compared to the pH and temperature measured at Arroyo Simi sample location RSW-002 (Appendix C) to determine if sample location readings are within 0.5 pH unit and 5°F of the upstream field readings.

| FOURTH QUARTER 2023 BELL CREEK OBSERVATIONS AT OUTFALL 002 | | | |
|---|---------|----------|---------------------------|
| BELL CREEK OBSERVATIONS | OCTOBER | NOVEMBER | DECEMBER |
| Date and time of inspection | N/A | N/A | 12/21/2023, 07:15 |
| Weather conditions | N/A | N/A | Cloudy, rainy, cold, 53°F |
| Color of water | N/A | N/A | Pale brown |
| Appearance of oil films or grease, or floatable materials | N/A | N/A | None |
| Extent of visible turbidity or color patches | N/A | N/A | Uniform translucent |
| Description of odor, if any | N/A | N/A | None |
| Presence or activity of California Least Tern or California Brown Pelican | N/A | N/A | No |

Notes:

N/A = not applicable. Since Outfall 002 did not flow during the months of October and November, no monthly inspection was required at Outfall 002 for those months.

| FOURTH QUARTER 2023 DAYTON CANYON CREEK OBSERVATIONS AT OUTFALL 008 | | | |
|---|---------|----------|---------------------|
| DAYTON CANYON CREEK OBSERVATIONS | OCTOBER | NOVEMBER | DECEMBER |
| Date and time of inspection | N/A | N/A | 12/21/2023, 11:50 |
| Weather conditions | N/A | N/A | Rainy, cool, 56°F |
| Color of water | N/A | N/A | Pale brown |
| Appearance of oil films or grease, or floatable materials | N/A | N/A | None |
| Extent of visible turbidity or color patches | N/A | N/A | Uniform translucent |
| Description of odor, if any | N/A | N/A | None |
| Presence or activity of California Least Tern or California Brown Pelican | N/A | N/A | No |

Notes:

N/A = not applicable. Since Outfall 008 did not flow during the months of October and November, no monthly inspection was required at Outfall 008 for those months.