



The Boeing Company  
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Via Email to [losangeles@waterboards.ca.gov](mailto:losangeles@waterboards.ca.gov)

November 11, 2019  
In reply refer to SHEA-116137

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

Subject: Third Quarter 2019 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 July 1 through September 30, 2019 (Third Quarter 2019). 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 290 acres of Boeing's land for which the Department of Energy (DOE) has assumed responsibility for soil remediation.

In addition to reporting results from sampling that occurred during the Third Quarter 2019, this DMR discusses the continuing steps taken in response to the November 2018 Woolsey Wildfire, which caused a substantial loss of vegetation the Santa Susana Site and destroyed many previously installed controls identified as best management practices (BMPs). During the Third Quarter 2019, Boeing continued to assess the BMPs and Boeing's property in general across the Santa Susana Site to reduce sediment and soil in surface water flow.

Hard copies of this DMR are available to the public at the California State University Northridge Oviatt Library, the Simi Valley Public Library, and the Platt Branch of the Los Angeles Public Library. An electronic version of this DMR is located at: <http://www.boeing.com/principles/environment/santa-susana/monitoring-reports.page>.

## THIRD QUARTER 2019 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 Third Quarter 2019. Table I summarizes the Third Quarter 2019 sampling record by outfall or location and sample type collected per the requirements of the NPDES Permit.
- **Third Quarter 2019 Receiving Water Surveys:** This section summarizes the receiving water surveys required by the NPDES Permit.
- **Third Quarter 2019 Summary of Exceedances and/or Non-Compliance:** This section summarizes the Third Quarter 2019 sample results that exceeded NPDES Permit Limits, Benchmarks, and Receiving Water Limits, and the potential causes thereof.
- **Third Quarter 2019 Santa Susana Site Stormwater Pollution Prevention Plan (SWPPP)/BMP Activities:** This section presents the Santa Susana Site SWPPP and BMP-related activities implemented in the Third Quarter 2019 associated with Woolsey Wildfire Vegetation Restoration as well as activities associated with NASA, DOE, the Stormwater Expert Panel (Expert Panel), the Northern Drainage, and the Outfall 001/002 BMP Compliance Report. Table II summarizes typical BMP-related activities that occur at outfalls every quarter. Table III summarizes specific BMP activities completed during the Third Quarter 2019 by outfall location.
- **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 Third Quarter 2019.
- **Appendix B** tabulates waste shipment details during the Third Quarter 2019.
- **Appendix C** presents chemical analytical results from the Third Quarter 2019 stormwater and/or receiving water sample discharge monitoring in tabular form by outfall locations, constituents evaluated (analytes), sample dates, and data validation qualifiers.
- **Appendix D** contains copies of the laboratory analytical reports, chain-of-custody forms, and data validation reports (if validation was performed).

## DISCHARGE AND SAMPLE COLLECTION SUMMARY

The Santa Susana Site measured no qualifying rain events that produced greater than 0.1 inch of rainfall within a 24-hour period and were preceded by at least 72 hours of dry weather during the Third Quarter 2019 (Appendix A). Automated flow-weighted composite samplers (autosamplers) were set in preparation for all anticipated rain events. No discharge occurred at any of the outfalls; therefore, no samples were collected. There were no changes in the discharge as described in the NPDES Permit during the reporting period.

One quarterly offsite receiving water sample was collected at the Arroyo Simi location (RSW-002, Frontier Park; see Figure 2).

Table I summarizes the Third Quarter 2019 sampling record by location, sample frequency, and sample type collected per NPDES Permit requirements and results are included in Appendix C.

**TABLE I: Sampling Record during the Third Quarter 2019**

Date	Outfall/Location	Sample Frequency	Sample Type
7/11/2019	Arroyo Simi Receiving Water (RSW-002, Frontier Park)	Quarterly Surface Water	Grab

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 (if validation was performed) and notes, are included in Appendix D. 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 Third Quarter 2019 except when reporting limits were above the minimum levels (generally due to matrix). In cases where the NPDES Permit Limit was less than the reporting limit and minimum level, the reporting limit was used to determine compliance.

### **THIRD QUARTER 2019 RECEIVING WATER SURVEYS**

The receiving water monitoring program required by the Permit includes surveys of Bell Creek, Dayton Canyon Creek, and Arroyo Simi. Observations are made only during discharge from Outfalls 002, 008, and 009, respectively, and at most monthly during periods of multiple flow events. During Third Quarter 2019, Outfalls 002, 008, and 009 did not discharge, thus, no receiving water surveys were conducted.

### **THIRD QUARTER 2019 SUMMARY OF EXCEEDANCES AND/OR NON-COMPLIANCE**

No surface water discharges occurred from the Santa Susana Site during Third Quarter 2019. As such, there are no onsite compliance issues to report for this period. Additionally, in the quarterly surface water sample collected at Arroyo Simi sampling location (RSW-002, Frontier Park) in Simi Valley, no constituents exceeded receiving water limits.

### **THIRD QUARTER 2019 SANTA SUSANA SITE SWPPP/BMP ACTIVITIES**

Boeing implemented significant BMP activities in compliance with the Site-Wide SWPPP (Haley & Aldrich, 2019) 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, 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
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.	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 Third Quarter 2019.

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 Third Quarter 2019 by outfall or BMP location.

**TABLE III: Additional Third Quarter 2019 BMP Activities**

Outfall or BMP Location	BMP Activities During Third Quarter 2019
004	Removed broken limbs and branches from media bed. Performed weed abatement in the media bed.
006	Removed broken limbs and branches from media bed. Performed weed abatement in the media bed.
007	Removed broken limbs and branches from media bed.
Perimeter Pond	Performed weed abatement around pumps, intake pipes, and access.
Outfall 018 Stormwater Treatment System	Performed weed abatement in and around compound.
Lower Parking Lot	Removed spent fiber rolls from the base of the slope to the Sedimentation Basin. Removed trash and debris.
Northern Drainage on Sage Ranch Park	Replaced damaged and spent fiber rolls. Removed sediment build-up behind check structures.
CM-1	Removed debris from in front of weir board. Performed weed abatement.
CM-2	Replaced silt fence material on weir board. Removed debris from in front of weir board. Performed weed abatement.
CM-3	Removed sediment build-up from drop inlet structure. Replaced silt fence material on weir board. Removed debris from in front of weir board. Performed weed abatement.
CM-4	Replaced damaged and spent fiber rolls. Replaced silt fence material on weir board. Removed debris from in front of weir board. Performed weed abatement.
CM-5	Removed debris from in front of weir board. Performed weed abatement.
CM-6	Replaced silt fence material on weir board. Removed debris from in front of weir board. Performed weed abatement.
CM-7	Performed weed abatement.
CM-8	Removed debris from in front of weir board. Performed weed abatement along access area.
CM-9	Replaced damaged and spent fiber rolls. Replaced silt fence material on weir board. Removed debris from in front of weir board. Performed weed abatement.
CM-10	Removed debris from in front of weir board. Performed weed abatement.
CM-11	Removed debris from in front of weir board. Performed weed abatement.
CM-12	Removed debris from in front of weir board. Performed weed abatement.

In addition to SWPPP-related activities, specific BMP projects included: Woolsey Wildfire Vegetation Restoration, NASA, DOE, Expert Panel, Northern Drainage, and Outfall 001/002 BMP Compliance Report. These are discussed in more detail below.

#### **NASA-Related Activities**

Demolition BMPs and stormwater activities covered by NASA's Construction SWPPP (dated May 16, 2017) for the Alfa and Bravo areas are inspected in accordance with the Construction General Permit (CGP). All demolition and soil disturbance activities were completed in 2018. During the Third Quarter 2019, NASA maintained fiber rolls as linear sediment controls, maintained silt fencing, and maintained hydroseeded areas within these sites where construction activities had been completed.

Demolition BMPs and stormwater control activities covered by NASA's Construction SWPPP (dated December 4, 2017) in the Coca Test Stand Area are inspected in accordance with the CGP. All demolition and soil disturbance activities in the Coca Test Stand Area were completed in Fourth Quarter 2018. During the Third Quarter 2019, NASA maintained fiber rolls as linear sediment controls and maintained sandbags.

Demolition BMPs and stormwater control activities covered by NASA's Construction SWPPP (dated September 20, 2018) for the LOX and Bravo Areas are inspected in accordance with the CGP. During the Third Quarter 2019, NASA completed demolition activities in these areas and maintained fiber rolls as linear sediment controls and maintained sandbags.

During the Third Quarter 2019, utility poles in Area II had a 12 foot radius cleared of vegetation and covered with weed blocking fabric and road base to limit mobilization of pollutants from nearby soils through erosion control.

#### **DOE Related Activities**

DOE reported no BMP-related activities during the Third Quarter 2019.

#### **Expert Panel-Related Activities**

The BMP activities discussed below were performed, commenced, or completed during the Third Quarter 2019 in coordination with the Expert Panel.

#### **Culvert Modifications**

Twelve culvert modifications (CMs) were constructed in 2009 at various locations at or along the main road adjacent to the Northern Drainage. The CMs were designed to treat stormwater from roads and/or the surrounding hillsides. The Third Quarter 2019 activities included:

- Conducted BMP inspections, including the culvert inlets and riprap check dams;
- Cleaned basins and weir boards of sediment and debris at all CMs, as applicable;
- Replaced silt fence material on weir board at CM-2, -3, -4, -6, and -9;
- Replaced damaged and spent fiber rolls at CM-4 and CM-9;
- Removed the accumulated sediment within the drop inlet structure at CM-3; and
- Performed weed abatement at all CMs.

### NASA Expendable Launch Vehicle (ELV) Area BMPs

BMPs and drainage improvements were installed between June and October 2013 at the NASA ELV to improve the quality of stormwater from the ELV area. After being pumped from the cistern at the bottom of the swale to the ELV system, stormwater is gravity-driven through the tank system, starting with the settling tanks, then through the filter media tank, before discharging to a tributary that flows to Outfall 009. In the Second Quarter 2016, a sandbag berm was placed across the ELV asphalt swale to divert stormwater toward CM-1 for treatment instead of directly discharging to the Northern Drainage. A generator was installed at the ELV system during the Third Quarter 2019. The Third Quarter 2019 activities included BMP inspections.

### Well 13 Road

Sandbag berms located near the culvert inlet and downgradient of the hydroseeded area were reinforced and increased in height during Fourth Quarter 2017. The Third Quarter 2019 activities included BMP inspections.

### B-1 Area

The B-1 Area BMPs include:

- A sedimentation basin, constructed in 2012;
- A media filter, constructed in 2012; and
- An upper parking lot media filter, constructed in 2017.

The Third Quarter 2019 activities included continued BMP inspections and clearing the areas of sediment and debris.

### Upper Parking Lot Media Filter

Construction of a media filter at the northeast corner of the upper parking lot was completed during the Second Quarter 2017. This BMP included a new media filter similar in style to the B-1 media filter and designed to treat runoff from parts of the parking lot as well as parts of the adjacent entrance road. The Third Quarter 2019 activities included BMP inspections and removed sediment and debris in and around the media bed.

### Former Building 1436 Detention Bioswales

Two detention bioswales were constructed at the former Building 1436 following its removal in Third Quarter 2014. The graded surface was hydroseeded, and more than 2,900 native plantings were installed in December 2014. The bioswales were designed to capture, pretreat, and detain stormwater from the adjacent parking lot and from approximately 13.9 acres of drainage area east and upgradient prior to releasing the stormwater to the former Instrument and Equipment Laboratories (IEL) storm drain, where flow is diverted to the lower lot biofilter for treatment. The Third Quarter 2019 activities included BMP inspections and invasive plant removal adjacent to and within the bioswales.

### Lower Lot Biofilter

The lower lot biofilter is a stormwater treatment BMP designed and built to capture, convey, and treat stormwater from the lower parking lot and former IEL watershed. The lower lot biofilter consists of a 30,000-gallon cistern, a stormwater conveyance line, a sedimentation basin, and a media biofilter.

The Third Quarter 2019 activities included inspections to verify that the sedimentation basin and biofilter were free of sediment and debris, checks of the cistern area and pump, and inspections of surrounding BMPs. No stormwater was pumped from the Cistern to the sedimentation basin during the Third Quarter 2019. The Third Quarter 2019 activities included weed abatement as needed.

#### Administration Area Inlet Filters

Four storm drain inlets were modified with either drop inlet filters or weighted wattles filled with media mixtures during the Second Quarter 2017. At the inlet closest to the lower lot, a storm drain filter sock was placed upstream of the inlet to increase solids settling. The Third Quarter 2019 activities included BMP inspections and removed accumulated sediment in the basin.

#### Former Shooting Range

Prior to the Third Quarter 2019, existing BMPs at the Former Shooting Range consisted of:

- Slope stabilization measures (i.e., vegetation planting areas),
- Riprap berms along the Northern Drainage,
- A culvert maintenance media filter,
- Fiber rolls,
- Sandbag berm,
- Silt fencing,
- Water bar across the trail,
- Three check structures on the Northern trail,
- Sandbags with fiber rolls,
- A check structure at the dissipater, and
- Hydroseeding.

The entire area continues to benefit from the growth of dense vegetation which shields lead shot from direct contact with or dislodging due to precipitation.

The Third Quarter 2019 activities included BMP inspections, removing/replacing damaged fiber roll, and removing sediment buildup behind check structures at the Sage Ranch Walking Trail. At the request of the Expert Panel, the Sage Ranch side of the Former Shooting Range was inspected to confirm that BMPs (i.e., fiber rolls, silt fence, etc.) control and/or treat from that side of the Former Shooting Range to the Northern Drainage.

#### Non-Industrial Sources Special Studies

Non-industrial sources special studies are intended to help identify source pollutants within various watersheds. Onsite and offsite samples were not collected during the Third Quarter 2019.

#### **Northern Drainage BMPs**

Boeing restored the Northern Drainage (Outfall 009) following cleanup activities performed under the Department of Toxic Substance Control oversight and in accordance with the requirements of the Regional Board's Cleanup and

Abatement Order No. R4-2007-0054 (Regional Water Quality Control Board, 2007). The restoration and mitigation activities proposed in the Northern Drainage Restoration, Mitigation, and Monitoring Plan (RMMP)<sup>1</sup> were implemented in 2012. In accordance with the RMMP, regular maintenance, monitoring, and reporting were implemented in the Northern Drainage from 2012 through the Third Quarter 2017 for the stream's plant biology and geomorphology. The successful restoration and mitigation of the Northern Drainage per the success criteria of the RMMP were documented in the fifth and final Annual Mitigation Monitoring Report (Haley & Aldrich, 2017). Based on the success of the project, Boeing requested that the Regional Board provide written notice stating that Boeing had complied with all terms of the Cleanup and Abatement Order and Boeing's obligations under the Order would therefore be terminated. Boeing will continue to inspect the Northern Drainage BMPs annually and maintain them on an as-needed basis. No RMMP-related inspections of Northern Drainage BMPs were performed during Third Quarter 2019.

#### **Outfall 001/002 BMP Compliance Report Related Activities**

Boeing and the Expert Panel will continue to monitor and evaluate the effectiveness of BMPs within the watersheds of Outfall 001 and Outfall 002. A discussion of next steps and recommendations for these watersheds are included 2019 Expert Panel Annual Report (Geosyntec and the Expert Panel, 2019).

#### **CONCLUSIONS**

Boeing 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. The Expert Panel is reviewing the data collected this year and will make BMP and monitoring recommendations that will be communicated in the 2019 Annual Report.

#### **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.

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<sup>1</sup> Available at: <http://www.boeing.com/principles/environment/santa-susana/technical-reports.page>



## 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 11th of November 2019 at The Boeing Company, Seal Beach, CA Site.

Sincerely,

Kim O'Rourke  
Remediation Program Manager  
Environment, Health & Safety

### Enclosures:

#### References

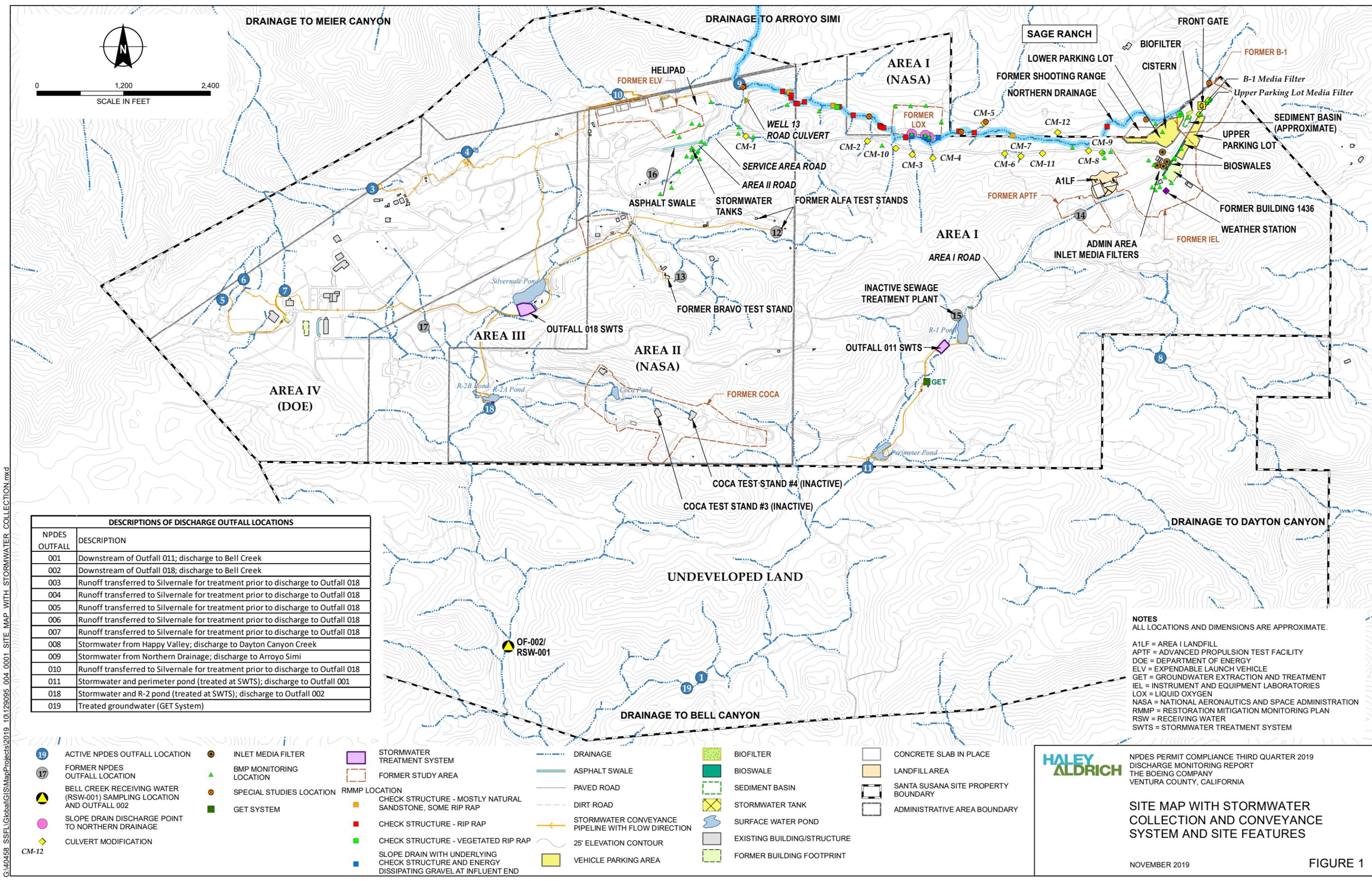
- Figure 1 – Site Map with Stormwater Collection and Conveyance System and Site Features
- Figure 2 – Arroyo Simi Receiving Water (RSW-002, Frontier Park) Sampling Location and Upstream Monitoring Point
- Appendix A – Third Quarter 2019 Daily Rainfall Summary
- Appendix B – Third Quarter 2019 Waste Shipment Summary Tables
- Appendix C – Third Quarter 2019 Discharge Monitoring Data Summary Tables
- Appendix D – Third Quarter 2019 Analytical Laboratory Reports, Chain of Custody Forms, and Validation Reports

- c: Los Angeles Regional Water Quality Control Board; Attn: Ms. Cassandra Owens  
California Department of Toxic Substances Control; Attn: Mr. Mark Malinowski  
California State University Northridge Oviatt Library  
Simi Valley Public Library  
Los Angeles Public Library, Platt Branch

## REFERENCES

1. The Boeing Company, 2017. Best Management Practice Compliance Report, Outfalls 001 and 002, The Boeing Company, Santa Susana Site, Ventura County. 16 June.
2. California Regional Water Quality Control Board, 2007. Cleanup and Abatement Order No. R4-2007-0054. 6 November.
3. 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.
4. 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). 31 October.
5. Haley & Aldrich, Inc., 2017. Northern Drainage 2017 Annual Report, Clean Water Act Section 401 Water Quality Certification, File No. 12-001, Cleanup and Abatement Order No. R4-2007-0054, Streambed Alteration Agreement No. 1600-2003-5052-R5, Streambed Alteration Agreement No. 1600-2015-0079-R5, U.S. Army Corps of Engineers SPL-2012-00015, Santa Susana Field Laboratory, Ventura County, California. 13 December.
6. Haley & Aldrich, Inc., 2019. Stormwater Pollution and Prevention Plan (Version 6 for Compliance with 2015 NPDES Permit). 26 September.

## FIGURES



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
019	Treated groundwater (GET System)

**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

- 19 ACTIVE NPDES OUTFALL LOCATION
- 17 FORMER NPDES OUTFALL LOCATION
- ▲ BELL CREEK RECEIVING WATER (RSW-001) SAMPLING LOCATION AND OUTFALL 002
- SLOPE DRAIN DISCHARGE POINT TO NORTHERN DRAINAGE
- ◆ CULVERT MODIFICATION
- INLET MEDIA FILTER
- ▲ BMP MONITORING LOCATION
- SPECIAL STUDIES LOCATION
- GET SYSTEM
- STORMWATER TREATMENT SYSTEM
- FORMER STUDY AREA
- RMMP LOCATION
- CHECK STRUCTURE - MOSTLY NATURAL SANDSTONE, SOME RIP RAP
- CHECK STRUCTURE - RIP RAP
- CHECK STRUCTURE - VEGETATED RIP RAP
- SLOPE DRAIN WITH UNDERLYING CHECK STRUCTURE AND ENERGY DISSIPATING GRAVEL AT INFLUENT END
- DRAINAGE
- ASPHALT SWALE
- PAVED ROAD
- DIRT ROAD
- STORMWATER CONVEYANCE PIPELINE WITH FLOW DIRECTION
- 25' ELEVATION CONTOUR
- VEHICLE PARKING AREA
- BIOFILTER
- BIOSWALE
- SEDIMENT BASIN
- STORMWATER TANK
- SURFACE WATER POND
- EXISTING BUILDING/STRUCTURE
- FORMER BUILDING FOOTPRINT
- CONCRETE SLAB IN PLACE
- LANDFILL AREA
- SANTA SUSANA SITE PROPERTY BOUNDARY
- ADMINISTRATIVE AREA BOUNDARY

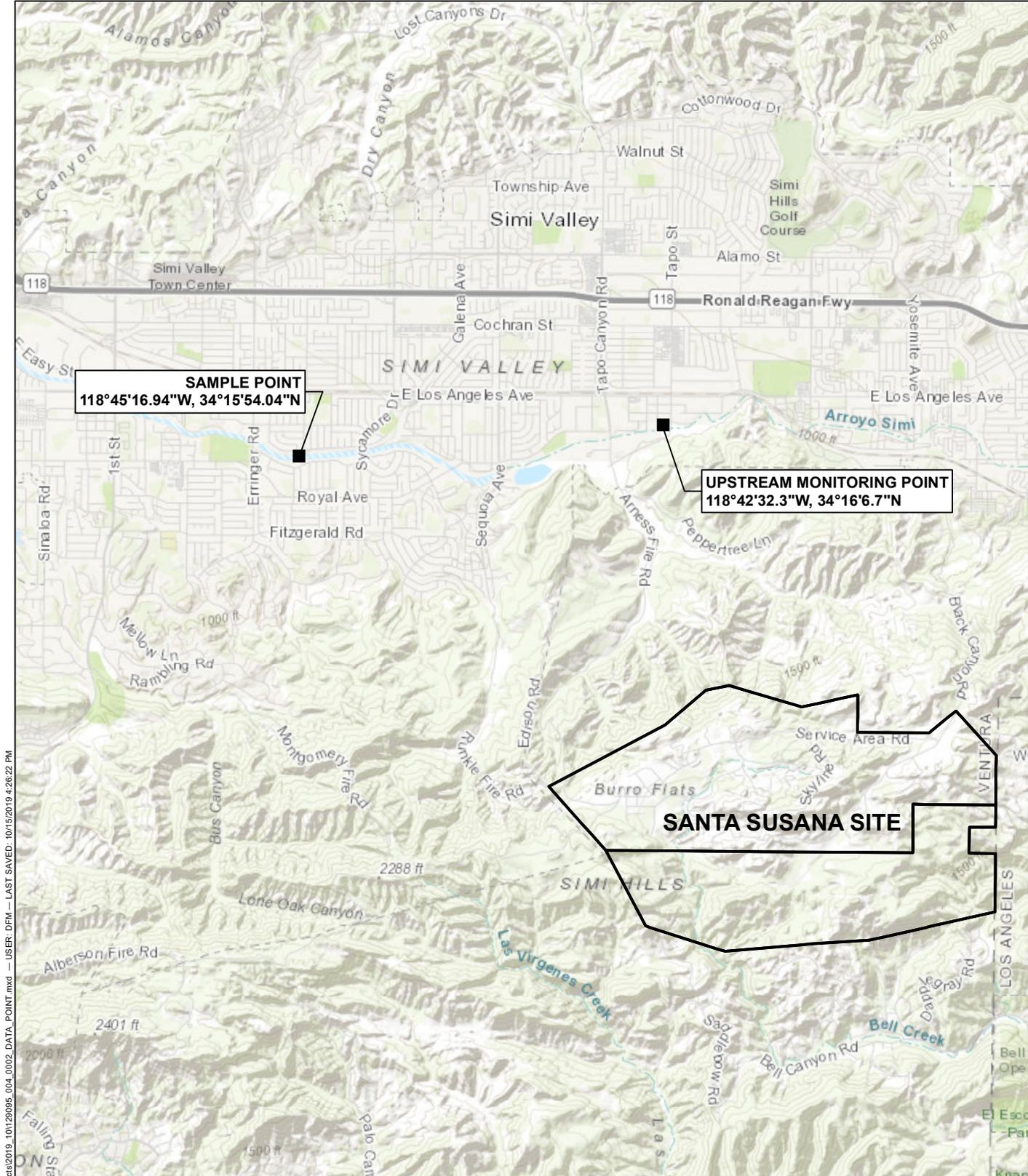
**HALEY ALDRICH**

NPDES PERMIT COMPLIANCE THIRD QUARTER 2019  
 DISCHARGE MONITORING REPORT  
 THE BOEING COMPANY  
 VENTURA COUNTY, CALIFORNIA

**SITE MAP WITH STORMWATER COLLECTION AND CONVEYANCE SYSTEM AND SITE FEATURES**

NOVEMBER 2019 FIGURE 1

G:\40458\_SSF\Global\GIS\MapProjects\2019\_10\129095\_004\_0001\_SITE\_MAP\_WITH\_STORMWATER\_COLLECTION.mxd



**SAMPLE POINT**  
 118°45'16.94"W, 34°15'54.04"N

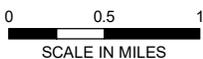
**UPSTREAM MONITORING POINT**  
 118°42'32.3"W, 34°16'6.7"N

**SANTA SUSANA SITE**

GIS FILE PATH: G:\40458\_SSFUGlobal\GIS\MapProjects\2019\_10\120095\_004\_0002\_DATA\_POINT.mxd - USER: DFM - LAST SAVED: 10/15/2019 4:26:22 PM

**NOTES**

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



**HALEY  
ALDRICH**

NPDES PERMIT COMPLIANCE THIRD QUARTER 2019  
 DISCHARGE MONITORING REPORT  
 THE BOEING COMPANY  
 VENTURA COUNTY, CALIFORNIA

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

NOVEMBER 2019

**FIGURE 2**

**APPENDIX A**

**Third Quarter 2019 Daily Rainfall Summary**

**APPENDIX A**  
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Table A – Daily Rainfall Summary



**TABLE A  
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY  
NPDES PERMIT CA0001309**

Station: AREA 1  
Parameter: Rain  
Month/Year: August 2019

**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	Total	
<b>DAY</b>																											
<b>1</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>2</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>3</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>4</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>5</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>6</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>7</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>8</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>10</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>11</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>12</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>13</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>14</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>15</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>16</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>17</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>18</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>19</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>20</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
<b>21</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>22</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>23</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>24</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>25</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>26</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>27</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>28</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>29</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>30</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>31</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Flags: d = Off-line part of hour, invalid hour due to calibration (August 20). For the off-line event, the rain gauge at Sage Ranch confirmed that no rainfall was recorded on August 20 during hour 06:00-07:00.



**APPENDIX B**

**Third Quarter 2019 Waste Shipment Summary Tables**

**APPENDIX B**

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Table B – Waste Shipment Summary Table, Liquid Waste Shipments

Table B – Waste Shipment Summary Table, Solid Waste Shipments

**TABLE B  
WASTE SHIPMENT SUMMARY TABLE  
LIQUID WASTE SHIPMENTS**

**THIRD QUARTER 2019  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION
Non-RCRA Hazardous Waste	956	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Hazardous Waste, Liquid	21,500	G	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	US Ecology Vernon 5375 South Boyle Avenue Los Angeles, CA 90058
Hazardous Waste, Liquid	19,700	G	O.C. Vacuum, Inc.	n/a	n/a	US Ecology Vernon 5375 South Boyle Avenue Los Angeles, CA 90058
Non Hazardous, Non D.O.T Regulated	6,542	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Corrosive Liquid, Basic, Inorganic, N.O.S.	130	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Corrosive Liquid, Acidic, Inorganic, N.O.S.	5	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Hazardous Waste, Liquid	323	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Non-RCRA Hazardous Waste, Liquid	6	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Hazardous Waste, Liquid	45,500	G	Ecology Control Industries, Inc 20846 Normandie Ave Torrance, CA 90502	n/a	n/a	US Ecology Vernon Inc. 5375 South Boyle Avenue Los Angeles, CA 90058
Hazardous Waste, Liquid	17,800	G	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	US Ecology Vernon Inc. 5375 South Boyle Avenue Los Angeles, CA 90058
Non Hazardous Waste, Liquid	21,600	G	American Integrated Services, Inc.	n/a	n/a	Crosby & Overton, Inc. 1630 W. 17th Street Long Beach, CA 90813
Waste Toxic Liquids	5	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Basin Transportation LLC 130 Express Lane Mcalester, OK 74501	n/a	Clean Harbors Environmental Services, Inc. 2247 South Highway 71 Kimball, NE 69145
Non-RCRA Hazardous Waste, Liquid	5	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Basin Transportation LLC 130 Express Lane Mcalester, OK 74501	n/a	Clean Harbors Environmental Services, Inc. 2247 South Highway 71 Kimball, NE 69145
Hazardous Waste, Liquid	40,000	G	Southwest Processors, Inc. 4120 Bandini Blvd Vernon, CA 90058	n/a	n/a	Southwest Processors, Inc. 4120 Bandini Blvd Vernon, CA 90058

Notes:  
G = Gallons  
n/a = Not Applicable  
P = Pounds

**TABLE B  
WASTE SHIPMENT SUMMARY TABLE  
SOLID WASTE SHIPMENTS**

**THIRD QUARTER 2019  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION
Non Hazardous, Non D.O.T Regulated	20	Y	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Waste Management - Antelope Valley LF 1200 W. City Ranch Road Palmdale, CA 93551
Non Hazardous, Non D.O.T Regulated	117	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Corrosive Solid, Basic, Inorganic, N.O.S.,	34	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Hazardous Waste Solid	62	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Non-RCRA Hazardous Waste, Solids	19	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Waste Non D.O.T. Regulated	8	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Hazardous Waste, Solids	176	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Tri-State Motor Transit Co.	n/a	Clean Harbors Environmental Services, Inc. 2247 South Highway 71 Kimball, NE 69145
Hazardous Waste, Solids	27	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Environmental Services, Inc. 2247 South Highway 71 Kimball, NE 69145
Waste Non D.O.T. Regulated	16	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Environmental+A3:G10I Services, Inc. 2247 South Highway 71 Kimball, NE 69145

Notes:  
n/a = Not Applicable  
P = Pounds  
Y = Yards

**APPENDIX C**

**Third Quarter 2019 Discharge Monitoring Data Summary Tables**

**APPENDIX C**

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Reporting Summary Notes

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 2018.
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.
<(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.

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

*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).
*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).
*II *III	Unusual problems found with the data that have been described in Section II, "sample management", or Section III, "method analysis". The number following the asterisk (*) will indicated the validation report section where a description of the problem can be found.
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.

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

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.
gpd	Gallons per day.
H	Holding time was exceeded.
Hardness	Equivalent of calcium carbonate (CaCO <sub>3</sub> ).
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.
L2	The laboratory control sample percent recovery (%R) was below the method control limits.
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.
M1	Matrix spike (MS) and/or matrix spike duplicate (MSD) were above the acceptance limits due to sample matrix interference.
M2	The matrix spike (MS) and/or matrix spike duplicate (MSD) were below the acceptance limits due to sample matrix interference.
Max	Maximum.
MB	Analyte present in the method blank.
MDA/MDC	Minimum detectable activity/minimum detectable concentration.

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

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.
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	Octa CDD.
OCDF	Octa CDF.
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.

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

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.
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 / monthly average limit.
(3)	Secondary maximum contaminant level.

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

(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 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.
(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)	Reserved.
(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 delayed by an hour due to field error.
(o)	Unsafe conditions all day prevented access to the Outfall.
(p)	Reserved.
(q)	Minimum level not met due to laboratory error.

**ARROYO SIMI  
DISCHARGE MONITORING DATA SUMMARY TABLE**

**THIRD QUARTER 2019  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

July 1 through September 30, 2019

ANALYTE	UNITS	PERMIT LIMIT DAILY MAX	SAMPLE FREQUENCY	07/11/2019 08:00		
				SAMPLE TYPE	RESULT	LABORATORY/ VALIDATION QUALIFIER
<b>POLLUTANTS WITH LIMITS</b>						
4,4'-DDD	µg/L	0.0014	1/Quarter	Grab	ND < 0.00900	U*
4,4'-DDE	µg/L	0.001	1/Quarter	Grab	ND < 0.0200	U*
4,4'-DDT	µg/L	0.001	1/Quarter	Grab	ND < 0.0100	U*
Aroclor 1016	µg/L	0.0003	1/Quarter	Grab	ND < 0.10	U*
Aroclor 1221	µg/L	0.0003	1/Quarter	Grab	ND < 0.10	U*
Aroclor 1232	µg/L	0.0003	1/Quarter	Grab	ND < 0.10	U*
Aroclor 1242	µg/L	0.0003	1/Quarter	Grab	ND < 0.10	U*
Aroclor 1248	µg/L	0.0003	1/Quarter	Grab	ND < 0.10	U*
Aroclor 1254	µg/L	0.0003	1/Quarter	Grab	ND < 0.10	U*
Aroclor 1260	µg/L	0.0003	1/Quarter	Grab	ND < 0.15	U*
Chlordane <sup>(1)</sup>	µg/L	0.001	1/Quarter	Grab	ND < 0.232	U*
Chlorpyrifos	µg/L	0.02	1/Quarter	Grab	ND < 0.0069	U*
Diazinon	µg/L	0.16	1/Quarter	Grab	ND < 0.0052	U*
Dieldrin	µg/L	0.0002	1/Quarter	Grab	ND < 0.00800	U*
E. coli	MPN/100mL	235	1/Year	ANR	ANR	ANR
pH (Field)	s. u.	6.5-8.5	1/Quarter	Grab	7.08	*
Toxaphene	µg/L	0.0003	1/Quarter	Grab	ND < 0.355	U*
<b>POLLUTANTS WITHOUT LIMITS</b>						
Hardness (as CaCO3)	mg/L	-	1/Quarter	Grab	610	*
Priority Pollutants	NA	-	1/5 Years	ANR	ANR	ANR
Temperature (Field)	Deg F	-	1/Quarter	Grab	69.3	*
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	0.0	*

## **APPENDIX D**

**Third Quarter 2019 Analytical Laboratory Reports,  
Chain of Custody Forms, and Validation Reports**

**APPENDIX D**

**TABLE OF CONTENTS**

**Section No.**

- 1 Arroyo Simi - 440-245602-1 - July 11, 2019, TestAmerica Analytical Report
- 2 Arroyo Simi - 440-245602-3 - July 11, 2019, TestAmerica Analytical Report

## ANALYTICAL REPORT

Eurofins TestAmerica, Irvine  
17461 Derian Ave  
Suite 100  
Irvine, CA 92614-5817  
Tel: (949)261-1022

Laboratory Job ID: 440-245602-1

Client Project/Site: Quarterly Arroyo Simi-Frontier Park

**For:**

Haley & Aldrich, Inc.  
400 E Van Buren St.  
Suite 545  
Phoenix, Arizona 85004

Attn: Katherine Miller



Authorized for release by:  
8/6/2019 1:47:05 PM

Urvashi Patel, Manager of Project Management  
(949)260-3269  
[urvashi.patel@testamericainc.com](mailto:urvashi.patel@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.



---

Urvashi Patel  
Manager of Project Management  
8/6/2019 1:47:05 PM

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# Sample Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-245602-1	Arroyo_Simi_20190711_Grab	Water	07/11/19 08:00	07/11/19 15:30	

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# Case Narrative

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-1

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## Job ID: 440-245602-1

---

Laboratory: Eurofins TestAmerica, Irvine

### Narrative

---

#### Job Narrative 440-245602-1

### Comments

No additional comments.

### Receipt

The samples were received on 7/11/2019 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.0° C and 5.0° C.

### Metals

Method(s) 200.7 Rev 4.4: The method blank for preparation batch 440-557500 and analytical batch 440-557655 contained Magnesium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

### Subcontract non-Sister

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

### Subcontract Work

Method 608\_LL-PCB- Lancaster Labs: This method was subcontracted to Eurofins Lancaster Laboratories Env LLC. The subcontract laboratory certification is different from that of the facility issuing the final report.

Method Weck- 525.2: This method was subcontracted to Weck Laboratories, Inc.. The subcontract laboratory certification is different from that of the facility issuing the final report.



# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-1

**Client Sample ID: Arroyo\_Simi\_20190711\_Grab**

**Lab Sample ID: 440-245602-1**

**Date Collected: 07/11/19 08:00**

**Matrix: Water**

**Date Received: 07/11/19 15:30**

**Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness, as CaCO3	610		0.33	0.17	mg/L			07/17/19 18:23	1

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# Method Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-1

Method	Method Description	Protocol	Laboratory
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	TAL IRV
Subcontract	608_LL-PCB- Lancaster Labs	None	SC0103
Subcontract	Weck- 525.2	None	Weck Lab

#### Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

#### Laboratory References:

SC0103 = Eurofins Lancaster Laboratories Env LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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

# Lab Chronicle

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-1

**Client Sample ID: Arroyo\_Simi\_20190711\_Grab**

**Lab Sample ID: 440-245602-1**

**Date Collected: 07/11/19 08:00**

**Matrix: Water**

**Date Received: 07/11/19 15:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	SM 2340B		1			557456	07/17/19 18:23	P1R	TAL IRV

### Laboratory References:

SC0103 = Eurofins Lancaster Laboratories Env LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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

# QC Association Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-1

## Metals

Analysis Batch: 557456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-245602-1	Arroyo_Simi_20190711_Grab	Total Recoverable	Water	SM 2340B	

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## Definitions/Glossary

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-1

### 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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

# Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-1

## Laboratory: Eurofins TestAmerica, Irvine

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	CA ELAP 2706	06-30-19 *

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\* Accreditation/Certification renewal pending - accreditation/certification considered valid.



# Certificate of Analysis

FINAL REPORT

**Work Orders:** 9G11112

**Report Date:** 7/26/2019

**Project:** 440-245602-1

**Received Date:** 7/11/2019

**Turnaround Time:** Normal

**Phones:** (949) 261-1022

**Fax:** (949) 260-3297

**P.O. #:** 440-245602-1

**Attn:** TestAmerica, Irvine

**Billing Code:**

**Client:** TestAmerica - Irvine CA  
17461 Derian Ave, Suite 100  
Irvine, CA 92614

Dear TestAmerica, Irvine,

Enclosed are the results of analyses for samples received 7/11/19 with the Chain-of-Custody document. The samples were received in good condition, at 4.1 °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 Results

Sample: Arroyo\_Simi\_20190711\_Grab 9G11112-01 (Water) Sampled: 07/11/19 8:00 by Client

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Method:</b> EPA 525.2M	<b>Batch ID:</b> W9G0682	<b>Instr:</b> GCMS13	<b>Prepared:</b> 07/12/19 10:15	<b>Analyst:</b> EFC			
Chlorpyrifos	ND	6.9	10	ng/l	1	07/24/19 21:10	
Diazinon	ND	5.2	10	ng/l	1	07/24/19 21:10	
<i>Surrogate(s)</i>							
1,3-Dimethyl-2-nitrobenzene	96%		76-128	Conc: 481		07/24/19 21:10	
Triphenyl phosphate	112%		40-163	Conc: 560		07/24/19 21:10	



WECK LABORATORIES, INC.

# Certificate of Analysis

FINAL REPORT

## Quality Control Results

### Semivolatle Organics - Low Level by Tandem GC/MS/MS

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
<b>Blank (W9G0682-BLK1)</b>					<b>Prepared: 07/12/19 Analyzed: 07/24/19</b>						
Chlorpyrifos	ND	6.9	10	ng/l							
Diazinon	ND	5.2	10	ng/l							
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	491			ng/l	500		98	76-128			
Triphenyl phosphate	546			ng/l	500		109	40-163			
<b>LCS (W9G0682-BS1)</b>					<b>Prepared: 07/12/19 Analyzed: 07/24/19</b>						
Chlorpyrifos	57.2	6.9	10	ng/l	50.0		114	37-169			
Diazinon	45.0	5.2	10	ng/l	50.0		90	43-152			
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	458			ng/l	500		92	76-128			
Triphenyl phosphate	606			ng/l	500		121	40-163			
<b>Matrix Spike (W9G0682-MS1)</b>					<b>Source: 9G11112-01</b>		<b>Prepared: 07/12/19 Analyzed: 07/24/19</b>				
Chlorpyrifos	71.7	6.9	10	ng/l	50.0	ND	143	37-168			
Diazinon	64.3	5.2	10	ng/l	50.0	ND	129	36-153			
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	521			ng/l	500		104	76-128			
Triphenyl phosphate	572			ng/l	500		114	40-163			
<b>Matrix Spike Dup (W9G0682-MSD1)</b>					<b>Source: 9G11112-01</b>		<b>Prepared: 07/12/19 Analyzed: 07/24/19</b>				
Chlorpyrifos	68.6	6.9	10	ng/l	50.0	ND	137	37-168	4	30	
Diazinon	68.5	5.2	10	ng/l	50.0	ND	137	36-153	6	30	
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	476			ng/l	500		95	76-128			
Triphenyl phosphate	632			ng/l	500		126	40-163			



WECK LABORATORIES, INC.

# Certificate of Analysis

FINAL REPORT

## Notes and Definitions

Item	Definition
% Rec	Percent Recovery
Dil	Dilution
dry	Sample results reported on a dry weight basis
MDA	Minimum Detectable Activity
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) and Detection Limit for Reporting (DLR)
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.
NR	Not Reportable
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated.
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

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

An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)

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:

Regina Giancola  
Project Manager



ELAP-CA #1132 • EPA-UCMR #CA00211 • Guam-EPA #17-008R • HW-DOH # • ISO 17025 #L2457.01 • LACSD #10143 •  
NELAP-CA #04229CA • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

*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.*



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

Test America  
17461 Derian Ave  
Suite #100  
Irvine CA 92614

Report Date: August 01, 2019 15:00

### Project: Boeing NPDES SSFL Outfalls

Account #: 41440  
Group Number: 2053439  
SDG: SSF15  
PO Number: 440-171028-1  
State of Sample Origin: CA

Electronic Copy To Test America

Attn: Urvashi Patel

Respectfully Submitted,



Kay Hower

(717) 556-7364

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
Arroyo_Simi_Grab(440-245602-1) Grab Water	07/11/2019 08:00	1100501
Arroyo_Simi_Grab(440-245602-1MS) Grab Water	07/11/2019 08:00	1100502
Arroyo_Simi_Grab(440-245602-1MSD) Grab Water	07/11/2019 08:00	1100503

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** Arroyo\_Simi\_Grab(440-245602-1) Grab Water  
Boeing NPDES SSFL Outfalls

**Test America**  
**ELLE Sample #:** WW 1100501  
**ELLE Group #:** 2053439  
**Matrix:** Water

**Project Name:** Boeing NPDES SSFL Outfalls

**Submittal Date/Time:** 07/13/2019 09:15  
**Collection Date/Time:** 07/11/2019 08:00  
**SDG#:** SSF15-01BKG

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>PCBs</b>		<b>EPA 608</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
06030	PCB-1016	12674-11-2	N.D. D1	0.10	0.50	1
06030	PCB-1221	11104-28-2	N.D. D1	0.10	0.50	1
06030	PCB-1232	11141-16-5	N.D. D1	0.10	0.50	1
06030	PCB-1242	53469-21-9	N.D. D1	0.10	0.50	1
06030	PCB-1248	12672-29-6	N.D. D1	0.10	0.50	1
06030	PCB-1254	11097-69-1	N.D. D1	0.10	0.50	1
06030	PCB-1260	11096-82-5	N.D. D1	0.15	0.50	1
06030	Total PCBs	1336-36-3	N.D.	0.10	0.50	1

### Sample Comments

CA ELAP Lab Certification No. 2792

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06030	PCBs in Water by 608	EPA 608	1	191970012A	07/26/2019 07:08	Covenant Mutuku	1
11960	Method 608 PCB Water Ext.	EPA 608	1	191970012A	07/16/2019 16:30	Ryan J Dowdy	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** Arroyo\_Simi\_Grab(440-245602-1MS) Grab Water  
Boeing NPDES SSFL Outfalls

**Test America**  
**ELLE Sample #:** WW 1100502  
**ELLE Group #:** 2053439  
**Matrix:** Water

**Project Name:** Boeing NPDES SSFL Outfalls

**Submittal Date/Time:** 07/13/2019 09:15  
**Collection Date/Time:** 07/11/2019 08:00  
**SDG#:** SSF15-01MS

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>PCBs</b>		<b>EPA 608</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
06030	PCB-1016	12674-11-2	4.7 D2	0.10	0.50	1
06030	PCB-1221	11104-28-2	N.D. D1	0.10	0.50	1
06030	PCB-1232	11141-16-5	N.D. D1	0.10	0.50	1
06030	PCB-1242	53469-21-9	N.D. D1	0.10	0.50	1
06030	PCB-1248	12672-29-6	N.D. D1	0.10	0.50	1
06030	PCB-1254	11097-69-1	N.D. D1	0.10	0.50	1
06030	PCB-1260	11096-82-5	4.5 D1	0.15	0.50	1
06030	Total PCBs	1336-36-3	9.2	0.10	0.50	1

### Sample Comments

CA ELAP Lab Certification No. 2792

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06030	PCBs in Water by 608	EPA 608	1	191970012A	07/26/2019 07:18	Covenant Mutuku	1
11960	Method 608 PCB Water Ext.	EPA 608	1	191970012A	07/16/2019 16:30	Ryan J Dowdy	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** Arroyo\_Simi\_Grab(440-245602-1MSD) Grab Water  
Boeing NPDES SSFL Outfalls

**Test America**  
**ELLE Sample #:** WW 1100503  
**ELLE Group #:** 2053439  
**Matrix:** Water

**Project Name:** Boeing NPDES SSFL Outfalls

**Submittal Date/Time:** 07/13/2019 09:15  
**Collection Date/Time:** 07/11/2019 08:00  
**SDG#:** SSF15-01MSD

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>PCBs</b>		<b>EPA 608</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
06030	PCB-1016	12674-11-2	4.5 D2	0.10	0.50	1
06030	PCB-1221	11104-28-2	N.D. D1	0.10	0.50	1
06030	PCB-1232	11141-16-5	N.D. D1	0.10	0.50	1
06030	PCB-1242	53469-21-9	N.D. D1	0.10	0.50	1
06030	PCB-1248	12672-29-6	N.D. D1	0.10	0.50	1
06030	PCB-1254	11097-69-1	N.D. D1	0.10	0.50	1
06030	PCB-1260	11096-82-5	4.2 D1	0.15	0.50	1
06030	Total PCBs	1336-36-3	8.8	0.10	0.50	1

### Sample Comments

CA ELAP Lab Certification No. 2792

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06030	PCBs in Water by 608	EPA 608	1	191970012A	07/26/2019 07:29	Covenant Mutuku	1
11960	Method 608 PCB Water Ext.	EPA 608	1	191970012A	07/16/2019 16:30	Ryan J Dowdy	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: Test America  
Reported: 08/01/2019 15:00

Group Number: 2053439

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	MDL** ug/l	LOQ ug/l
Batch number: 191970012A	Sample number(s): 1100501-1100503		
PCB-1016	N.D.	0.10	0.50
PCB-1221	N.D.	0.10	0.50
PCB-1232	N.D.	0.10	0.50
PCB-1242	N.D.	0.10	0.50
PCB-1248	N.D.	0.10	0.50
PCB-1254	N.D.	0.10	0.50
PCB-1260	N.D.	0.15	0.50
Total PCBs	N.D.	0.10	0.50

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 191970012A	Sample number(s): 1100501-1100503								
PCB-1016	5.02	4.31			86		60-117		
PCB-1260	5.05	5.03			100		57-134		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 191970012A	Sample number(s): 1100501-1100503 UNSPK: 1100501									
PCB-1016	N.D.	5.02	4.70	5.02	4.52	94	90	60-117	4	30
PCB-1260	N.D.	5.05	4.51	5.05	4.24	89	84	57-134	6	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: Test America  
Reported: 08/01/2019 15:00

Group Number: 2053439

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PCBs in Water by 608  
Batch number: 191970012A

	Tetrachloro-m-xylene-D1	Decachlorobiphenyl-D1	Tetrachloro-m-xylene-D2	Decachlorobiphenyl-D2
1100501	77	78	77	78
1100502	88	81	86	83
1100503	83	82	83	81
Blank	69	78	69	78
LCS	65	74	65	74
MS	88	81	86	83
MSD	83	82	83	81
Limits:	18-115	10-127	18-115	10-127

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



41440 / 2053439 ) 1100501-03

**Chain of Custody Record**



<b>Client Information (Sub Contract Lab)</b>		Sampler:		Lab PM: Patel, Urvashi		Carrier Tracking No(s):		COC No: 440-141041.1			
Client Contact: Shipping/Receiving		Phone:		E-Mail: urvashi.patel@testamericainc.com		State of Origin: California		Page: Page 1 of 1			
Company: Eurofins Lancaster Laboratories Env LLC				Accreditations Required (See note): State Program - California				Job #: 440-245602-1			
Address: 2425 New Holland Pike,		Due Date Requested: 7/23/2019		<b>Analysis Requested</b>						<b>Preservation Codes:</b> 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 Z - other (specify)	
City: Lancaster		TAT Requested (days):									
State, Zip: PA, 17601		PO #:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers			
Phone: 717-656-2300(Tel)		WO #:		SUB (608_LL-PCB-Lancaster Labs/ 608_LL-PCB-Lancaster Labs)		SUB (608_PEST_LL-Lancaster/ 608_PEST_LL-Lancaster)					
Email:		Project #: 44009879		Project Name: Boeing NPDES SSFL outfalls		SSOW#:		Other:			
Site:		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)			
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)			
Arroyo_Simi_20190711_Grab (440-245602-1)		7/11/19		08:00 Pacific		Water		2			
Arroyo_Simi_20190711_Grab (440-245602-1MS)		7/11/19		08:00 Pacific		MS		2			
Arroyo_Simi_20190711_Grab (440-245602-1MSD)		7/11/19		08:00 Pacific		MSD		2			

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

<b>Possible Hazard Identification</b>				<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>			
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>A. Kennedy</i>		Date/Time: 7/12/19 1700		Company: TA IRV		Received by:	
Relinquished by:		Date/Time:		Company:		Received by:	
Relinquished by:		Date/Time:		Company:		Received by: <i>[Signature]</i>	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: n/A		Cooler Temperature(s) °C and Other Remarks: 1.4		Date/Time: 7/13/19 9:15	

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Client: TESTAMERICA, IRVINE

**Delivery and Receipt Information**

Delivery Method:	<u>Fed Ex</u>	Arrival Timestamp:	<u>07/13/2019 9:15</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>CA</u>		

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace $\geq$ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Jessenia Colon Martinez (30856) at 12:40 on 07/13/2019*

**Samples Chilled Details**

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	32170023	1.4	IR	Wet	Y	Loose/Bag	N

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



CHAIN OF CUSTODY FORM

Client Name/Address: <b>Haley &amp; Aldrich</b> 9040 Friars Road Suite 220 San Diego, CA 92108-5860		Project: Boeing-SSFL NPDES Permit 2015 <b>Quarterly Arroyo Simi-Frontier Park Dry Weather</b>		ANALYSIS REQUIRED				Field Readings		Meter serial # <b>ED3PJWY</b>	
Test America Contact <b>Urvashi Patel</b> 17461 Derian Ave Suite #100 Irvine CA 92614 Tel 949-260-3269 Cell 949-333-9055		Project Manager: <b>Katherine Miller</b> 520.289.8606, 520.904.6944 (cell)		Hardness as CaCO3, Recoverable (SM2340B)	Chlorpyrifos, Diazinon (E525.2)	Pesticides: Chlordane, 4,4-DDD, 4,4-DDE, 4,4-DDT, Dieldrin, Toxaphene + PCBs only (E608)				Field Readings: (Include units) Time of Readings: <b>0745</b>	
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2015-18-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc		Field Manager: <b>Mark Dominick</b> 978.234.5033, 818.599.0702 (cell)								pH <b>7.08</b> pH unit	
Sampler: <b>Justin Quirk</b>										Temp <b>20.7</b> C/F	
										Velocity <b>0.0</b> ft/sec	
				Field readings QC		Checked by: <i>[Signature]</i>		Date/Time: <b>7-11-19/0745</b>			
								Comments			
Sample Description	Sample ID	Sampling Date/Time	Sample Matrix	Container Type	# of Cont	Preservative	Bottle #	MS/MSD			
Arroyo Simi	Arroyo_Simi_20190711_Grab	7/11/2019 <i>10800</i>	WS	<del>360 mL Poly</del>	3	HNO <sub>3</sub>	100	Yes	X		
			WS	1L Glass Amber	6	HCl	275	Yes		X	Extract within 24-Hours of sampling
			WS	1L Glass Amber	6	None	285	Yes		X	
	Arroyo_Simi_20190711_Grab_Extra	7/11/2019 <i>10800</i>	WS	1L Glass Amber	2	HCl	275	No		H	Hold
			WS	1L Glass Amber	2	None	285	No		H	Hold
 440-245602 Chain of Custody											
Relinquished By: <i>[Signature]</i>		Date/Time: <b>7-11-19/1142</b>		Company: <b>Haley &amp; Aldrich</b>		Received By: <i>[Signature]</i>		Date/Time: <b>7/11/19 1142</b>		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: <b>7/11/19</b>		Company: <b>1530 TAIRV</b>		Received By: <i>[Signature]</i>		Date/Time: <b>7/11/19 1530</b>		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	

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*1294 5.3/5.0*  
*0*

*2.3/2.0*  
*⑦*

8/6/2019



# Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-245602-1

**Login Number: 245602**

**List Source: Eurofins TestAmerica, Irvine**

**List Number: 1**

**Creator: Soderblom, Tim**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
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	
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.	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

Eurofins TestAmerica, Irvine  
17461 Derian Ave  
Suite 100  
Irvine, CA 92614-5817  
Tel: (949)261-1022

Laboratory Job ID: 440-245602-3

Client Project/Site: Quarterly Arroyo Simi-Frontier Park

**For:**

Haley & Aldrich, Inc.  
400 E Van Buren St.  
Suite 545  
Phoenix, Arizona 85004

Attn: Katherine Miller



Authorized for release by:  
8/15/2019 12:07:14 PM

Urvashi Patel, Manager of Project Management  
(949)260-3269

[urvashi.patel@testamericainc.com](mailto:urvashi.patel@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

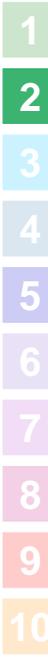
*Results relate only to the items tested and the sample(s) as received by the laboratory.*

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.



---

Urvashi Patel  
Manager of Project Management  
8/15/2019 12:07:14 PM



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# Sample Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-3

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-245602-1	Arroyo_Simi_20190711_Grab	Water	07/11/19 08:00	07/11/19 15:30	

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# Case Narrative

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-3

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**Job ID: 440-245602-3**

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**Laboratory: Eurofins TestAmerica, Irvine**

## Narrative

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**Job Narrative**  
**440-245602-3**

## Comments

No additional comments.

## Receipt

The samples were received on 7/11/2019 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.0° C and 5.0° C.

## Subcontract non-Sister

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

## Subcontract Work

Method 608\_PEST\_LL-Lancaster: This method was subcontracted to Eurofins Lancaster Laboratories Env LLC. The subcontract laboratory certification is different from that of the facility issuing the final report.

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# Method Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-3

---

Method	Method Description	Protocol	Laboratory
Subcontract	608_PEST_LL-Lancaster	None	SC0103

---

**Protocol References:**

None = None

**Laboratory References:**

SC0103 = Eurofins Lancaster Laboratories Env LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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# Definitions/Glossary

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-3

## 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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

# Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Quarterly Arroyo Simi-Frontier Park

Job ID: 440-245602-3

## Laboratory: Eurofins TestAmerica, Irvine

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	CA ELAP 2706	06-30-20

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## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

Test America  
17461 Derian Ave  
Suite #100  
Irvine CA 92614

Report Date: August 15, 2019 13:18

### Project: Boeing NPDES SSFL Outfalls

Account #: 41440  
Group Number: 2053439  
SDG: SSF15  
PO Number: 440-171028-1  
State of Sample Origin: CA

Electronic Copy To Test America

Attn: Urvashi Patel

Respectfully Submitted,



Kay Hower

(717) 556-7364

A previous version of this report was generated on 08/01/2019 15:00.

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/>. Historical copies may be requested through your project manager.



REVISID

### SAMPLE INFORMATION

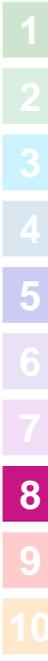
Client Sample Description

Sample Collection  
Date/Time

ELLE#

Arroyo_Simi_Grab(440-245602-1) Grab Water	07/11/2019 08:00	1100501
Arroyo_Simi_Grab(440-245602-1MS) Grab Water	07/11/2019 08:00	1100502
Arroyo_Simi_Grab(440-245602-1MSD) Grab Water	07/11/2019 08:00	1100503

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.



REVISED

**Sample Description:** Arroyo\_Simi\_Grab(440-245602-1) Grab Water  
Boeing NPDES SSFL Outfalls

**Test America**  
**ELLE Sample #:** WW 1100501  
**ELLE Group #:** 2053439  
**Matrix:** Water

**Project Name:** Boeing NPDES SSFL Outfalls

**Submittal Date/Time:** 07/13/2019 09:15  
**Collection Date/Time:** 07/11/2019 08:00  
**SDG#:** SSF15-01BKG

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>PCBs</b>		<b>EPA 608</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
06030	PCB-1016	12674-11-2	N.D. D1	0.10	0.50	1
06030	PCB-1221	11104-28-2	N.D. D1	0.10	0.50	1
06030	PCB-1232	11141-16-5	N.D. D1	0.10	0.50	1
06030	PCB-1242	53469-21-9	N.D. D1	0.10	0.50	1
06030	PCB-1248	12672-29-6	N.D. D1	0.10	0.50	1
06030	PCB-1254	11097-69-1	N.D. D1	0.10	0.50	1
06030	PCB-1260	11096-82-5	N.D. D1	0.15	0.50	1
06030	Total PCBs	1336-36-3	N.D.	0.10	0.50	1
<b>Pesticides</b>		<b>EPA 608.3 Dec. 2016</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
13634	Chlordane	57-74-9	N.D. D1	0.232	0.500	1
13634	p,p-DDD	72-54-8	N.D. D1	0.00900	0.0200	1
13634	p,p-DDE	72-55-9	N.D. D1	0.0200	0.0400	1
13634	p,p-DDT	50-29-3	N.D. D2	0.0100	0.0200	1
13634	Dieldrin	60-57-1	N.D. D2	0.00800	0.0200	1
13634	Toxaphene	8001-35-2	N.D. D1	0.355	1.00	1

### Sample Comments

CA ELAP Lab Certification No. 2792  
Due to a laboratory entry error the analysis for pesticides by EPA 608 was performed past hold time.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06030	PCBs in Water by 608	EPA 608	1	191970012A	07/26/2019 07:08	Covenant Mutuku	1
13634	OC Pest (608.3) 250mL	EPA 608.3 Dec. 2016	1	192180031A	08/09/2019 04:18	Andrea L Jones	1
11960	Method 608 PCB Water Ext.	EPA 608	1	191970012A	07/16/2019 16:30	Ryan J Dowdy	1
15037	Pesticide 608.3 Water Ext	EPA 608.3 Dec. 2016	1	192180031A	08/07/2019 09:00	David S Schrum	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** Arroyo\_Simi\_Grab(440-245602-1MS) Grab Water  
Boeing NPDES SSFL Outfalls

**Test America**  
**ELLE Sample #:** WW 1100502  
**ELLE Group #:** 2053439  
**Matrix:** Water

**Project Name:** Boeing NPDES SSFL Outfalls

**Submittal Date/Time:** 07/13/2019 09:15  
**Collection Date/Time:** 07/11/2019 08:00  
**SDG#:** SSF15-01MS

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>PCBs</b>		<b>EPA 608</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
06030	PCB-1016	12674-11-2	4.7 D2	0.10	0.50	1
06030	PCB-1221	11104-28-2	N.D. D1	0.10	0.50	1
06030	PCB-1232	11141-16-5	N.D. D1	0.10	0.50	1
06030	PCB-1242	53469-21-9	N.D. D1	0.10	0.50	1
06030	PCB-1248	12672-29-6	N.D. D1	0.10	0.50	1
06030	PCB-1254	11097-69-1	N.D. D1	0.10	0.50	1
06030	PCB-1260	11096-82-5	4.5 D1	0.15	0.50	1
06030	Total PCBs	1336-36-3	9.2	0.10	0.50	1
<b>Pesticides</b>		<b>EPA 608.3 Dec. 2016</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
13634	Chlordane	57-74-9	N.D. D1	0.232	0.500	1
13634	p,p-DDD	72-54-8	0.195 D2	0.00900	0.0200	1
13634	p,p-DDE	72-55-9	0.193 D2	0.0200	0.0400	1
13634	p,p-DDT	50-29-3	0.193 D2	0.0100	0.0200	1
13634	Dieldrin	60-57-1	0.206 D2	0.00800	0.0200	1
13634	Toxaphene	8001-35-2	N.D. D1	0.355	1.00	1

### Sample Comments

CA ELAP Lab Certification No. 2792  
Due to a laboratory entry error the analysis for pesticides by EPA 608 was performed past hold time.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06030	PCBs in Water by 608	EPA 608	1	191970012A	07/26/2019 07:18	Covenant Mutuku	1
13634	OC Pest (608.3) 250mL	EPA 608.3 Dec. 2016	1	192180031A	08/09/2019 04:31	Andrea L Jones	1
11960	Method 608 PCB Water Ext.	EPA 608	1	191970012A	07/16/2019 16:30	Ryan J Dowdy	1
15037	Pesticide 608.3 Water Ext	EPA 608.3 Dec. 2016	1	192180031A	08/07/2019 09:00	David S Schrum	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** Arroyo\_Simi\_Grab(440-245602-1MSD) Grab Water  
Boeing NPDES SSFL Outfalls

**Test America**  
**ELLE Sample #:** WW 1100503  
**ELLE Group #:** 2053439  
**Matrix:** Water

**Project Name:** Boeing NPDES SSFL Outfalls

**Submittal Date/Time:** 07/13/2019 09:15  
**Collection Date/Time:** 07/11/2019 08:00  
**SDG#:** SSF15-01MSD

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>PCBs</b>		<b>EPA 608</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
06030	PCB-1016	12674-11-2	4.5 D2	0.10	0.50	1
06030	PCB-1221	11104-28-2	N.D. D1	0.10	0.50	1
06030	PCB-1232	11141-16-5	N.D. D1	0.10	0.50	1
06030	PCB-1242	53469-21-9	N.D. D1	0.10	0.50	1
06030	PCB-1248	12672-29-6	N.D. D1	0.10	0.50	1
06030	PCB-1254	11097-69-1	N.D. D1	0.10	0.50	1
06030	PCB-1260	11096-82-5	4.2 D1	0.15	0.50	1
06030	Total PCBs	1336-36-3	8.8	0.10	0.50	1
<b>Pesticides</b>		<b>EPA 608.3 Dec. 2016</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
13634	Chlordane	57-74-9	N.D. D1	0.232	0.500	1
13634	p,p-DDD	72-54-8	0.194 D2	0.00900	0.0200	1
13634	p,p-DDE	72-55-9	0.193 D2	0.0200	0.0400	1
13634	p,p-DDT	50-29-3	0.195 D2	0.0100	0.0200	1
13634	Dieldrin	60-57-1	0.205 D2	0.00800	0.0200	1
13634	Toxaphene	8001-35-2	N.D. D1	0.355	1.00	1

### Sample Comments

CA ELAP Lab Certification No. 2792  
Due to a laboratory entry error the analysis for pesticides by EPA 608 was performed past hold time.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06030	PCBs in Water by 608	EPA 608	1	191970012A	07/26/2019 07:29	Covenant Mutuku	1
13634	OC Pest (608.3) 250mL	EPA 608.3 Dec. 2016	1	192180031A	08/09/2019 04:43	Andrea L Jones	1
11960	Method 608 PCB Water Ext.	EPA 608	1	191970012A	07/16/2019 16:30	Ryan J Dowdy	1
15037	Pesticide 608.3 Water Ext	EPA 608.3 Dec. 2016	1	192180031A	08/07/2019 09:00	David S Schrum	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: Test America  
Reported: 08/15/2019 13:18

Group Number: 2053439

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	MDL** ug/l	LOQ ug/l
Batch number: 191970012A	Sample number(s): 1100501-1100503		
PCB-1016	N.D.	0.10	0.50
PCB-1221	N.D.	0.10	0.50
PCB-1232	N.D.	0.10	0.50
PCB-1242	N.D.	0.10	0.50
PCB-1248	N.D.	0.10	0.50
PCB-1254	N.D.	0.10	0.50
PCB-1260	N.D.	0.15	0.50
Total PCBs	N.D.	0.10	0.50
Batch number: 192180031A	Sample number(s): 1100501-1100503		
Chlordane	N.D.	0.232	0.500
p,p-DDD	N.D.	0.00900	0.0200
p,p-DDE	N.D.	0.0200	0.0400
p,p-DDT	N.D.	0.0100	0.0200
Dieldrin	N.D.	0.00800	0.0200
Toxaphene	N.D.	0.355	1.00

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 191970012A	Sample number(s): 1100501-1100503								
PCB-1016	5.02	4.31			86		60-117		
PCB-1260	5.05	5.03			100		57-134		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 192180031A	Sample number(s): 1100501-1100503								
p,p-DDD	0.204	0.169			83		31-141		
p,p-DDE	0.200	0.142			71		30-145		
p,p-DDT	0.204	0.161			79		25-160		
Dieldrin	0.204	0.181			89		36-146		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: Test America  
Reported: 08/15/2019 13:18

Group Number: 2053439

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 191970012A	Sample number(s): 1100501-1100503 UNSPK: 1100501									
PCB-1016	N.D.	5.02	4.70	5.02	4.52	94	90	60-117	4	30
PCB-1260	N.D.	5.05	4.51	5.05	4.24	89	84	57-134	6	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 192180031A	Sample number(s): 1100501-1100503 UNSPK: 1100501									
p,p-DDD	N.D.	0.204	0.195	0.204	0.194	95	95	31-141	0	39
p,p-DDE	N.D.	0.200	0.193	0.200	0.193	97	97	30-145	0	35
p,p-DDT	N.D.	0.204	0.193	0.204	0.195	95	95	25-160	1	30
Dieldrin	N.D.	0.204	0.206	0.204	0.205	101	101	36-146	1	49

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PCBs in Water by 608  
Batch number: 191970012A

	Tetrachloro-m-xylene-D1	Decachlorobiphenyl-D1	Tetrachloro-m-xylene-D2	Decachlorobiphenyl-D2
1100501	77	78	77	78
1100502	88	81	86	83
1100503	83	82	83	81
Blank	69	78	69	78
LCS	65	74	65	74
MS	88	81	86	83
MSD	83	82	83	81
Limits:	18-115	10-127	18-115	10-127

Analysis Name: OC Pest (608.3) 250mL  
Batch number: 192180031A

	Tetrachloro-m-xylene-D1	Decachlorobiphenyl-D1	Tetrachloro-m-xylene-D2	Decachlorobiphenyl-D2
1100501	71	77	71	69
1100502	73	75	75	67
1100503	78	83	78	75
Blank	54	80	56	71
LCS	57	68	56	62
MS	73	75	75	67
MSD	78	83	78	75

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: Test America  
Reported: 08/15/2019 13:18

Group Number: 2053439

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: OC Pest (608.3) 250mL  
Batch number: 192180031A

Limits:	29-129	32-149	29-129	32-149
---------	--------	--------	--------	--------

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.





Client: TESTAMERICA, IRVINE

**Delivery and Receipt Information**

Delivery Method:	<u>Fed Ex</u>	Arrival Timestamp:	<u>07/13/2019 9:15</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>CA</u>		

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace $\geq$ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Jessenia Colon Martinez (30856) at 12:40 on 07/13/2019*

**Samples Chilled Details**

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	32170023	1.4	IR	Wet	Y	Loose/Bag	N

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

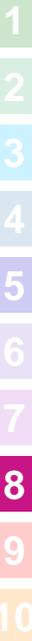
Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $>40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



CHAIN OF CUSTODY FORM

Client Name/Address: <b>Haley &amp; Aldrich</b> 9040 Friars Road Suite 220 San Diego, CA 92108-5860			Project: Boeing-SSFL NPDES Permit 2015 <b>Quarterly Arroyo Simi-Frontier Park Dry Weather</b>					ANALYSIS REQUIRED				Field Readings		Meter serial # <i>EDBPJWY</i>		
Test America Contact <b>Urvashi Patel</b> 17461 Derian Ave Suite #100 Irvine CA 92614 Tel 949-260-3269 Cell 949-333-9055			Project Manager: <b>Katherine Miller</b> 520.289.8606, 520.904.6944 (cell)					Hardness as CaCO3, Recoverable (SM2340B)	Chlorpyrifos, Diazinon (E525.2)	Pesticides: Chlorothane, 4,4-DDD, 4,4-DDE, 4,4-DDT, Dieldrin, Toxaphene + PCBs only (E608)					Field Readings: (Include units)	
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2015-18-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc			Field Manager: <b>Mark Dominick</b> 978.234.5033, 818.599.0702 (cell)												Time of Readings: <i>0745</i>	
Sampler: <i>Justin Quirk</i>															pH <i>7.08</i> pH unit	
															Temp <i>20.7</i> C/F	
										Velocity <i>0.0</i> ft/sec						
										Field readings QC						
										Checked by: <i>[Signature]</i>						
										Date/Time: <i>7-11-19/0745</i>						
										Comments						
Sample Description	Sample ID	Sampling Date/Time	Sample Matrix	Container Type	# of Cont	Preservative	Bottle #	MS/MSD								
Arroyo Simi	Arroyo_Simi_20190711_Grab	<i>7/11/2019/10300</i>	WS	<i>500 mL</i> 360 mL Poly	3	HNO <sub>3</sub>	100	Yes	X							
			WS	1L Glass Amber	6	HCl	275	Yes		X			Extract within 24-Hours of sampling			
			WS	1L Glass Amber	6	None	285	Yes			X					
	Arroyo_Simi_20190711_Grab_Extra	<i>7/11/2019/10300</i>	WS	1L Glass Amber	2	HCl	275	No		H		Hold				
			WS	1L Glass Amber	2	None	285	No		H		Hold				



440-245602 Chain of Custody

Relinquished By: <i>[Signature]</i>	Date/Time: <i>7-11-19/1142</i>	Company: <i>Haley &amp; Aldrich</i>	Received By: <i>[Signature]</i>	Date/Time: <i>7/11/19 1142</i>	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: <i>7/11/19</i>	Company: <i>1530 TAIRV</i>	Received By: <i>[Signature]</i>	Date/Time: <i>1530 7/11/19</i>	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

*1294 5.3/5.0 0*  
*2.3/2.0 ⑦*

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# Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-245602-3

**Login Number: 245602**

**List Source: Eurofins TestAmerica, Irvine**

**List Number: 1**

**Creator: Soderblom, Tim**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
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	
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.	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	

