

Via Email to losangeles@waterboards.ca.gov

November 15, 2017
In reply, refer to SHEA-115776

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

Subject: Third Quarter 2017 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 1 July through 30 September 2017 (Third Quarter 2017). This DMR was prepared as required by and in accordance with National Pollutant Discharge Elimination System Permit No. CA0001309 (NPDES Permit) issued by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) in 2015 and under the regulatory oversight of the Regional Board.

Hard copies of this DMR are available to the public at California State University at Northridge Library; Simi Valley Library; and the Platt Branch of the Los Angeles Library. An electronic version of this DMR is located at:

<http://www.boeing.com/principles/environment/santa-susana/monitoring-reports.page>

THIRD QUARTER 2017 DMR CONTENTS

This DMR includes the following sections and appendices:

- **Discharge Summary:** This section describes the number of rain events, number of samples collected, sample dates, and sample locations during the Third Quarter 2017. Table I summarizes the Third Quarter 2017 sampling record by outfall, location, and sample type collected per the requirements of the NPDES Permit.
- **Third Quarter 2017 Summary of Compliance:** This section summarizes the sample results that exceeded NPDES Permit limits, daily maximum benchmark limits, and receiving water limits in the Third Quarter 2017.
- **Third Quarter 2017 Santa Susana Site Stormwater Pollution Prevention Plan (SWPPP)/Best Management Practices (BMP) Activities:** This section presents the Santa Susana Site SWPPP activities and BMPs related to demolition, Interim Source Removal Actions (ISRA), the BMP Plan, the Northern Drainage, and other activities implemented in the Third Quarter 2017. Table II summarizes specific BMP activities by outfall location.
- **Data Validation and Quality Control:** This section discusses data validation results and any laboratory or field corrective actions.
- **Figure 1** shows the stormwater collection conveyance system and Santa Susana Site features; **Figure 2** shows the Arroyo Simi – Frontier Park (RSW-002) sampling location.

- **Appendix A** summarizes the rainfall measured during the Third Quarter 2017 at the Santa Susana Site.
- **Appendix B** tabulates waste shipment details.
- **Appendix C** presents chemical analytical results of the Third Quarter 2017 stormwater and/or receiving water samples in tabular form by outfall location, 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.

DISCHARGE SUMMARY

The Santa Susana Site experienced zero qualifying rain events that produced greater than 0.1 inch of rainfall within a 24-hour period and was preceded by at least 72 hours of dry weather during the Third Quarter 2017 (Appendix A). Automated flow-weighted composite samplers (autosamplers) were set in preparation for all rain events. No discharge occurred at any of the outfalls; therefore, no samples were collected.

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

Table I summarizes the Third Quarter 2017 sampling record by outfall/location, sample frequency, and sample type collected per NPDES Permit requirements.

TABLE I: Sampling Record during the Third Quarter 2017

Date	Outfall/Location	Sample Frequency	Sample Type
7/25/2017	Arroyo Simi-Frontier Park (RSW-002)	Quarterly	Grab

All samples were submitted to and analyzed by TestAmerica Laboratories, Inc., a California-certified analytical laboratory in Irvine, California per the NPDES Permit requirements.

THIRD QUARTER 2017 SUMMARY OF COMPLIANCE

No surface water discharges occurred from the Santa Susana Site during Third Quarter 2017. As such, there are no onsite compliance issues to report for this period. Additionally, in the quarterly sample collected at Arroyo Simi sample location RSW-002 in Simi Valley, no constituents exceeded receiving water limits. All Third Quarter 2017 samples were therefore in full compliance with the NPDES Permit.

THIRD QUARTER 2017 SANTA SUSANA SITE SWPPP/BMP ACTIVITIES

Boeing implemented significant SWPPP- and BMP-related activities to assist in improving stormwater quality and compliance at the Santa Susana Site. Table II summarizes the activities completed during the Third Quarter 2017 by outfall. In addition to SWPPP-related activities, specific BMP projects, which are discussed in sections below Table II, included: Outfall 008/009 ISRA BMPs; BMP Plan-related BMPs; and Northern Drainage BMPs.

TABLE II: Boeing’s Third Quarter 2017 BMP Activities

OUTFALL (Location)	BMP ACTIVITIES DURING THIRD QUARTER 2017
001 (South Slope)	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. Inspected the outfall and flume for sediment/debris. Checked the sample box and flow meter control box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Reset the flow meter and replaced the tape monthly. Covered the Autosampler tubing and bubbler tubing with black corrugated tubing. Performed autosampler flow paced annual calibration and sample volume calibration.
002 (South Slope)	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. Inspected the outfall and flume for sediment/debris. Checked the sample box and flow meter control box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Reset the flow meter and replaced the tape monthly. Performed autosampler flow paced annual calibration and sample volume calibration.
003 (Radioactive Material Handling Facility)	Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and flume for sediment/debris. Checked the sample box and flow meter control box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Reset the flow meter and replaced the tape monthly. Conducted maintenance inspections of structural BMPs, including the flow-through structure and stormwater conveyance and retention systems. Covered the Autosampler tubing and bubbler tubing with black corrugated tubing. Performed autosampler flow paced annual calibration and sample volume calibration.
004 (Sodium Reactor Experiment Area)	Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and flume for sediment/debris. Checked the sample box and flow meter control box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Reset the flow meter and replaced the tape monthly. Conducted maintenance inspections of the structural BMPs, including the flow-through structure and stormwater conveyance system. Performed autosampler flow paced annual calibration and sample volume calibration.
005 (Sodium Burn Pit 1)	Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall for sediment/debris. Checked the sample box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Conducted maintenance inspections of the stormwater conveyance and retention systems.

OUTFALL (Location)	BMP ACTIVITIES DURING THIRD QUARTER 2017
006 (Sodium Burn Pit 2)	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and flume for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced the tape monthly. Conducted maintenance inspections of the structural BMPs, including the flow-through structure and stormwater conveyance system. Covered the Autosampler tubing and bubbler tubing with black corrugated tubing. Performed autosampler flow paced annual calibration and sample volume calibration.</p>
007 (Building 100)	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall for sediment/debris. Checked the sample box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Conducted maintenance inspections of the stormwater conveyance and retention systems.</p>
008 (Happy Valley)	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and flume for sediment/debris. Checked the sample box and flow meter control box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Reset the flow meter and replaced the tape monthly. Performed autosampler flow paced annual calibration and sample volume calibration.</p>
009 (WS-13 Drainage)	<p>Outfall BMPs: Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and flume for sediment/debris. Checked the sample box and flow meter control box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Reset the flow meter and replaced the tape monthly. Performed autosampler flow paced annual calibration and sample volume calibration.</p> <p>Lower Lot BMP: Inspected the Sedimentation Basin, Biofilter, and Cistern areas. Installed fiber rolls at the base of the slope adjacent to the walkway of the Lower Lot.</p> <p>Upper Parking Lot BMP: Performed maintenance inspection of media filter near the parking lot.</p> <p>Front Gate: Performed maintenance inspection of area near the front gate.</p> <p>Former Building 1436 (B1436) Detention Bioswales: Performed maintenance inspection of bioswale surface area, including hydroseeded area and fiber rolls.</p> <p>B-1 Area: Performed maintenance inspection of BMPs along the slope and within drainage. Replaced wattles at the entrance of the B-1 Retention Basin.</p> <p>Culvert Modifications: Performed maintenance inspection of BMPs. Inspected the culvert inlets and rip rap check dams. Replaced old wattles with nylon netting with biodegradable wattles.</p>

OUTFALL (Location)	BMP ACTIVITIES DURING THIRD QUARTER 2017
010 (Building 203)	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and flume for sediment/debris. Checked the sample box and flow meter control box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Reset the flow meter monthly. Conducted maintenance inspections of structural BMPs, including the flow-through structure and stormwater conveyance and retention systems. Performed autosampler flow paced annual calibration and sample volume calibration.</p>
011 (Perimeter Pond)	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and weir for sediment/debris. Checked the sample box and flow meter control box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Reset the flow meter monthly. Conducted maintenance inspections of structural BMPs, including the flow-through structure and stormwater conveyance system. Covered the autosampler tubing and bubbler tubing with black corrugated tubing. Performed autosampler flow paced annual calibration and sample volume calibration.</p> <p>Stormwater Treatment System 011: Continue repairs and updates to the system in preparation of possible use during the upcoming rainy season.</p>
018 (R-2 Pond Spillway)	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and flume for sediment/debris. Checked the sample box and flow meter control box for the presence of debris and/or animals. Cleaned the sample box and the outfall area and performed weed abatement as needed. Reset the flow meter monthly. Conducted maintenance inspections of the structural BMPs, including the flow-through structure and conveyance system. Performed autosampler flow paced annual calibration and sample volume calibration.</p>
019 (Area I Groundwater Extraction and Treatment [GET] System)	<p>The GET system has not operated since April 2013 and no pumping or discharge has occurred; therefore, no NPDES Permit sampling was performed at the Area I GET System in the Third Quarter 2017. Conducted maintenance inspections of the structural BMPs.</p>
RSW-002 (Arroyo Simi – Frontier Park)	<p>Collected the quarterly rain event receiving water sample at the Arroyo Simi – Frontier Park location.</p>

OTHER BMP ACTIVITIES

BMP observations and maintenance inspections were conducted in conformance with the Site-Wide SWPPP (Haley & Aldrich, 2017) at and around the former active test stands Alfa and Bravo and former Advanced Propulsion Test Facility.

NASA-RELATED ACTIVITIES

Demolition activities covered by NASA's Construction SWPPP (dated 16 May 2017) are inspected in accordance with the Construction General Permit (CGP). During the Third Quarter 2017, NASA performed planned demolition activities in the Alfa and Bravo Test Stand Areas. NASA placed wattles as linear sediment controls, installed silt fencing, and hydroseeded areas within these sites where construction activities had been completed.

Stormwater control activities covered by NASA's Construction SWPPP (dated 21 February 2017) are inspected in accordance with the Construction General Permit (CGP). During the Third Quarter 2017, NASA performed planned demolition activities in the Delta Test Stand Area. BMPs, including wattles, were placed within these sites where construction activities had been completed.

DOE-RELATED ACTIVITIES

The Department of Energy (DOE) inspected the sediment fencing installed in the vicinity of well DD-141 and well DD-143 during the Third Quarter 2017 to evaluate its effectiveness at preventing soil erosion. Sediment fencing was installed near DD-141 to prevent sediment from entering the drainage north of the Building 56 Landfill Area and near DD-143 to prevent sediment from entering the drainage upgradient from Outfall 003.

SITE-WIDE WORKPLAN AND ANNUAL REPORT

The Expert Panel submitted a Site-Wide Stormwater Work Plan and 2014/15 Annual Report (2015 Work Plan) in September 2015 (Geosyntec and the Expert Panel, 2015a) on behalf of Boeing to meet the requirements of the NPDES Permit (Order No. R4-2015-0033)¹. The 2015 Work Plan, intended for an implementation period of a 5-year permit cycle, is applicable to all outfalls and presents the NPDES Permit monitoring results and BMP-related activities to be performed and reported on a yearly basis. The 2015 Work Plan also carried over the maintenance and monitoring of BMPs originally recommended in the 2010 BMP Plan for the Outfall 008 and 009 Watersheds (MWH *et al.*, 2010) and BMP Plan Addenda (Geosyntec and the Expert Panel, 2011; Geosyntec and the Expert Panel, 2012; Geosyntec and the Expert Panel, 2013; and Geosyntec and the Expert Panel, 2014), as well as those reported in the ISRA Performance Monitoring and BMP Monitoring Reports for Outfalls 008 and 009 Watersheds submitted to the Regional Board for each rainy season from 2010 through 2015 (MWH, 2010; MWH *et al.*, 2011; MWH *et al.*, 2012; MWH *et al.*, 2013; MWH *et al.*, 2014, and MWH *et al.*, 2015).

The 2015 Work Plan is designed to assess the effectiveness of BMPs/treatment control implementation measures based on surface water samples collected at outfalls and supplemented by monitoring data. A memorandum developed by Geosyntec Consultants for Boeing and the Expert Panel was incorporated into the 2015 Work Plan to summarize the evaluation of stormwater BMP opportunities along the Service Area Road. Subsequent to Geosyntec's memorandum, Boeing conducted surveys along the Service Area Road and completed additional design iterations to support diverting surface flow from the roadway to existing culvert modifications and maximize the capture area. BMP implementation was planned for and was initiated in early 2017 (Geosyntec and the Expert Panel, 2015b). The 2015 Work Plan also includes recommended non-industrial sources special studies intended to help identify sources of lead and dioxins within the Outfall 009 watershed. The special studies involve vacuum sampling pavement solids, pan sampling atmospheric deposition solids, soil sampling around treated wood poles, and sediment and stormwater sampling at multiple locations along the Northern Drainage. A subset of sampling for the various studies was conducted in the Third Quarter 2017 as described below. The 2016/2017 Annual Report was submitted to the Regional Board in October 2017 (Geosyntec and the Expert Panel, 2017).

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

OUTFALL 008/009 ISRA AND BMP PLAN-RELATED ACTIVITIES

The BMP activities discussed below were performed, commenced, or completed during the Third Quarter 2017 in coordination with the Expert Panel.

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 runoff 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 2017 activities included inspections of the BMPs.

Lower Lot Biofilter

The lower lot biofilter is a stormwater treatment BMP designed and built to capture, convey, and treat stormwater runoff 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 2017 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 2017.

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. 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 sand bag berm was placed across the ELV asphalt swale, to divert runoff from directly discharging to the Northern Drainage to instead flow toward CM-1 for treatment. The Third Quarter 2017 activities included inspections of the BMPs.

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. A sandbag berm was also placed upstream of the inlet closest to the lower lot to increase the settling of solids. The Third Quarter 2017 activities included inspections of the BMPs.

Road Runoff Diversion to CM-3

The construction of a new Service Area road runoff diversion to CM-3 was completed during the Second Quarter 2017. This BMP included a new curb installed on the north side of the road meant to convey flow to a new drop inlet and trench under the road, which then directs the collected runoff to CM-3 for treatment before entering the Northern Drainage. The Third Quarter 2017 activities included inspections of the BMPs.

Upper Parking Lot Media Filter

The 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, designed to treat runoff

from parts of the parking lot, as well as parts of the adjacent Entrance Road. The Third Quarter 2017 activities included inspections of the BMPs.

Upper Parking Lot

At the end of the 2016/2017 rainy season, erosion was noted around the upper parking lot. Existing wattles and jute netting were replaced in the Third Quarter 2017.

Service Area

In the Third Quarter 2017, wattles were replaced with fiber rolls on the Service Area Road.

Hazardous Waste Yard

In the Third Quarter 2017, an erosion feature was filled with rip rap at the north east of the bioswale. Rip rap dissipater and wattles were installed below the Hazardous Waste Yard to direct the water from the old road into the bioswale.

Former Shooting Range

In the Third Quarter 2017, BMPs were installed in the vicinity of the Former Shooting Range including:

- Three water bars across the trail
- Three check structures on the Northern trail
- Sandbags with straw wattles on the Northeast portion of the trail behind the biofilter
- Replaced damaged silt fence
- Reinstalled check structure at the dissipater
- Installed new silt fence north of the existing sit fence (and replaced existing silt fence)
- Installed wattles at the entrance of the shooting pad

NASA and Boeing BMP Monitoring-Related Maintenance Activities

In addition to activities performed in coordination with the Expert Panel described above, the BMP monitoring-related activities performed for Outfalls 008/009 during the Third Quarter 2017 included the following:

- Collected special studies atmospheric deposition samples from sampling pans on the Boeing-owned stormwater tank near the Helipad and the Boeing Fire Station.

NORTHERN DRAINAGE BMPS

Boeing has actively worked to restore the Northern Drainage following cleanup activities performed under the oversight of the Department of Toxic Substances Control (DTSC) and in accordance with the requirements of Regional Board's Cleanup and Abatement Order No. R4-2007-0054 (Regional Board, 2007). The restoration and mitigation activities proposed in the Northern Drainage Restoration, Mitigation, and Monitoring Plan (RMMP)² were implemented in 2012. In accordance with the RMMP, regular maintenance, monitoring, and reporting have been implemented in the Northern Drainage since 2012 for the stream's plant biology and geomorphology. Biological activities include botanical and California Rapid Assessment Method surveys, plant watering only during periods of excessive heat, and weeding non-native species. Geomorphic activities include stabilization measure inspections, physical surveying, facies mapping, photographic surveying, annual stream walks, as-needed

² Available at: <http://www.boeing.com/principles/environment/santa-susana/technical-reports.page>

maintenance, and annual geomorphic monitoring reports.

Biological activities performed in the Third Quarter 2017 included periodic biological monitoring during and after maintenance activities.

Geomorphic activities performed in the Third Quarter 2017 included: inspection of stabilization measures, facies mapping, photographic surveying, and physical surveying on 24 July and 27 September 2017; documentation and coordination of maintenance; and continued implementation of maintenance items beginning on 3 July 2017. Maintenance items were completed on 26 September 2017.

The following maintenance activities were completed in the Third Quarter 2017:

- Removed sediment from behind Northern Drainage rip rap berms at multiple locations from Outfall 009 up to the biofilter;
- Added or repositioned rip-rap to reinforce channel banks and stabilize flow paths in the Northern Drainage;
- Installed jute netting on exposed soil on banks of the Northern Drainage;
- Installed down-chute pipe and rip-rap dissipater from LOX pad to the Northern Drainage;
- Installed rip-rap dissipater on old staircase leading from Sage Ranch trail to the Northern Drainage;
- Constructed water bar to limit erosive concentrated runoff; and
- Repositioned check structures to direct flow path toward center of channel, away from banks.

REASONABLE POTENTIAL ANALYSIS

No surface water discharges occurred from the Santa Susana Site during Third Quarter 2017; therefore, no data were generated and no reasonable potential analysis was performed.

DATA VALIDATION AND QUALITY CONTROL

In accordance with current federal and state Environmental Protection Agency guidelines and procedures, or as specified in the NPDES Monitoring and Reporting Program, samples were analyzed at a State of California-certified laboratory. Data validation was performed on the analytical results and quality control elements were found to be within acceptable limits for the analytical methods reported, except as noted on the analytical summary tables. Measures were implemented by the analytical laboratory to monitor and/or evaluate low level detections, analyze for interferences, and ensure that cross-contamination did not occur. Laboratory analytical reports, including validation reports and notes, are included in Appendix D.

Attachment H of the NPDES Permit presents the State Board'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 2017 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.

CONCLUSIONS

Boeing continues 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 sustainable erosion control/restoration measures and continuing our collaboration with the Expert Panel.

FACILITY CONTACT

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

CERTIFICATION

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

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

Executed on the 15th of November 2017 at The Boeing Company, Santa Susana Site.

Sincerely,



Dave W. Dassler P.E.
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 – Frontier Park (RSW-002) Sampling Location

Appendix A – Third Quarter 2017 Rainfall Data Summary

Appendix B – Third Quarter 2017 Waste Shipment Summary Table

Appendix C – Third Quarter 2017 Discharge Monitoring Data Summary Tables

Appendix D – Third Quarter 2017 Analytical Laboratory Report, Chain of Custody Forms, and Validation Reports

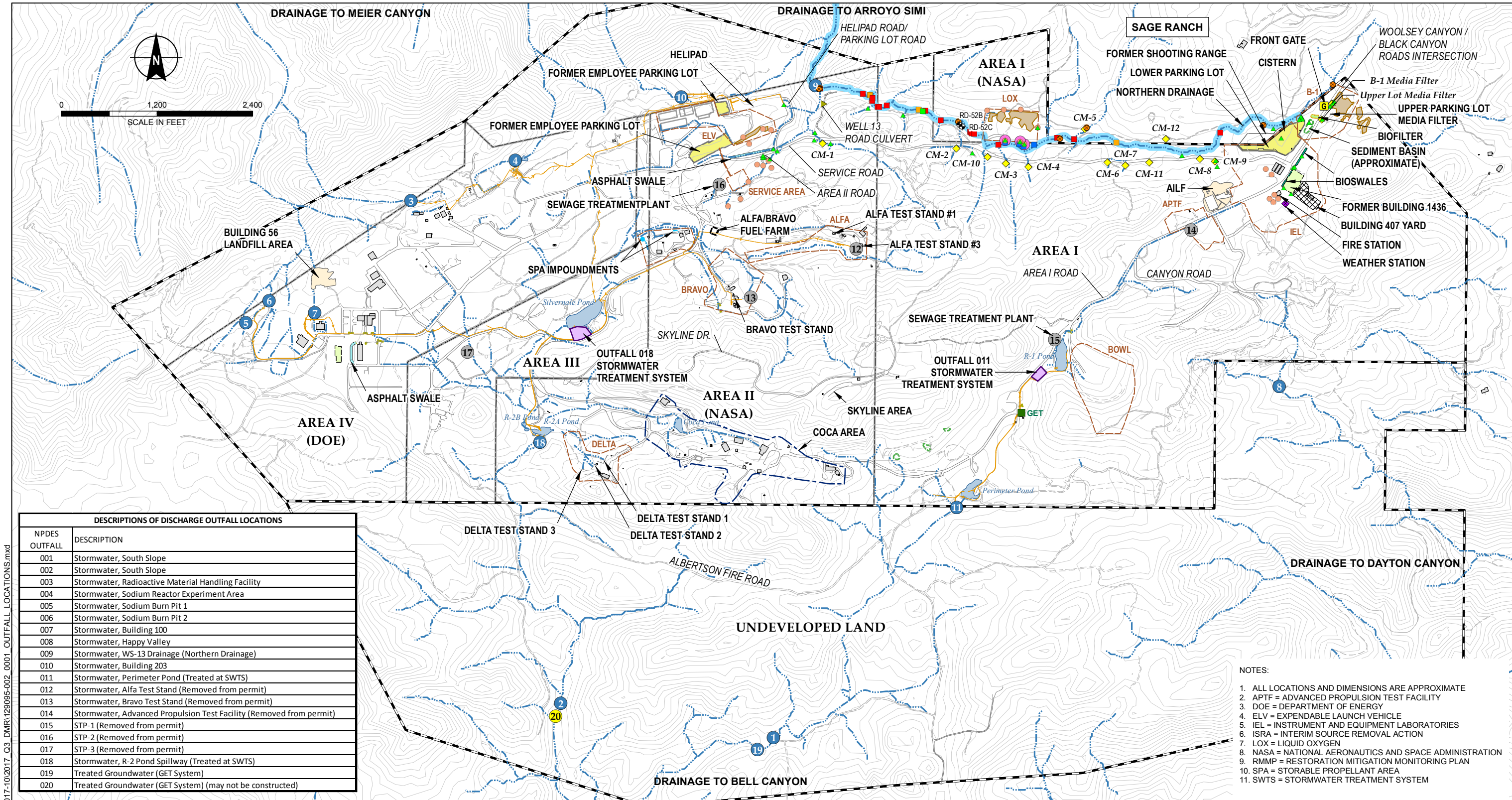
cc: Ms. Cassandra Owens, RWQCB
Mr. Mark Malinowski, DTSC
California State University – Northridge, Library
Simi Valley Library
Los Angeles Library, Platt Branch

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2. 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.
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Ventura County, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No. 6027; and California Water Code §13304 Order; No. CA0001309, CI No. 1111, Site ID No. 2040109). July 29.

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DESCRIPTIONS OF DISCHARGE OUTFALL LOCATIONS	
NPDES OUTFALL	DESCRIPTION
001	Stormwater, South Slope
002	Stormwater, South Slope
003	Stormwater, Radioactive Material Handling Facility
004	Stormwater, Sodium Reactor Experiment Area
005	Stormwater, Sodium Burn Pit 1
006	Stormwater, Sodium Burn Pit 2
007	Stormwater, Building 100
008	Stormwater, Happy Valley
009	Stormwater, WS-13 Drainage (Northern Drainage)
010	Stormwater, Building 203
011	Stormwater, Perimeter Pond (Treated at SWTS)
012	Stormwater, Alfa Test Stand (Removed from permit)
013	Stormwater, Bravo Test Stand (Removed from permit)
014	Stormwater, Advanced Propulsion Test Facility (Removed from permit)
015	STP-1 (Removed from permit)
016	STP-2 (Removed from permit)
017	STP-3 (Removed from permit)
018	Stormwater, R-2 Pond Spillway (Treated at SWTS)
019	Treated Groundwater (GET System)
020	Treated Groundwater (GET System) (may not be constructed)

- NOTES:
- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
 - APTF = ADVANCED PROPULSION TEST FACILITY
 - DOE = DEPARTMENT OF ENERGY
 - ELV = EXPENDABLE LAUNCH VEHICLE
 - IEL = INSTRUMENT AND EQUIPMENT LABORATORIES
 - ISRA = INTERIM SOURCE REMOVAL ACTION
 - LOX = LIQUID OXYGEN
 - NASA = NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
 - RMMP = RESTORATION MITIGATION MONITORING PLAN
 - SPA = STORABLE PROPELLANT AREA
 - SWTS = STORMWATER TREATMENT SYSTEM

LEGEND

19	ACTIVE NPDES OUTFALL LOCATION	●	ISRA PERFORMANCE MONITORING LOCATION	■	RMMP LOCATION	—	DRAINAGE	■	ISRA EXCAVATION BOUNDARY	■	EXISTING BUILDING/STRUCTURE
17	FORMER NPDES OUTFALL LOCATION	▲	BMP MONITORING LOCATION	■	CHECK STRUCTURE - MOSTLY NATURAL SANDSTONE, SOME RIP RAP	—	ASPHALT SWALE	■	VEHICLE PARKING AREA	■	FORMER BUILDING FOOTPRINT
20	POSSIBLE FUTURE NPDES OUTFALL LOCATION	●	SPECIAL STUDIES LOCATION	■	CHECK STRUCTURE - RIP RAP	—	PAVED ROAD	■	BIOFILTER	■	CONCRETE SLAB IN PLACE
●	SLOPE DRAIN DISCHARGE POINT TO NORTHERN DRAINAGE	■	GROUNDWATER EXTRACTION AND TREATMENT (GET) SYSTEM	■	CHECK STRUCTURE - VEGETATED RIP RAP	—	DIRT ROAD	■	BIOSWALE	■	SANTA SUSANA SITE PROPERTY BOUNDARY
◆	CULVERT MODIFICATION	■	STORMWATER TREATMENT SYSTEM	■	SLOPE DRAIN WITH UNDERLYING CHECK STRUCTURE AND ENERGY DISSIPATING GRAVEL AT INFLUENT END	—	STORMWATER CONVEYANCE PIPELINE WITH FLOW DIRECTION	■	SEDIMENT BASIN	■	ADMINISTRATIVE AREA BOUNDARY
◆	GROUNDWATER MONITORING WELL	■	STUDY AREA	■	25' ELEVATION CONTOUR	—	NORTHERN DRAINAGE	■	SURFACE WATER POND		

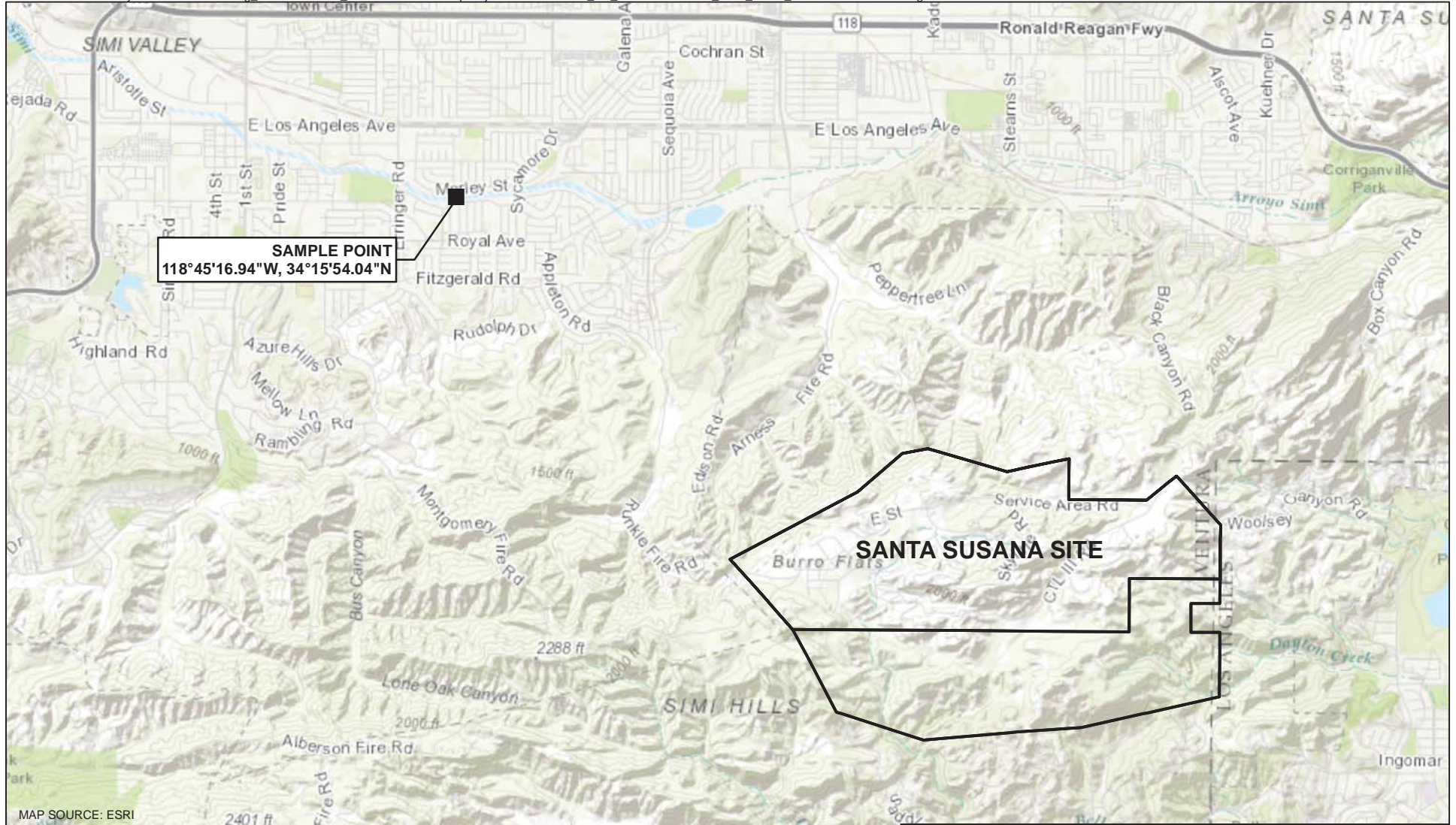
HALEY ALDRICH

NPDES PERMIT COMPLIANCE THIRD QUARTER 2017 DISCHARGE MONITORING REPORT THE BOEING COMPANY VENTURA COUNTY, CALIFORNIA

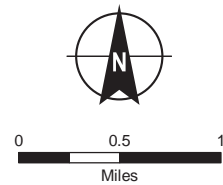
SITE MAP WITH STORMWATER COLLECTION AND CONVEYANCE SYSTEM AND SITE FEATURES

NOVEMBER 2017 **FIGURE 1**

G:\40458_SSF\GIS\MapProjects\2017-10\2017_Q3_DMR\129095-002_001_OUTFALL_LOCATIONS.mxd



MAP SOURCE: ESRI



NPDES PERMIT COMPLIANCE THIRD QUARTER 2017
DISCHARGE MONITORING REPORT
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

ARROYO SIMI-FRONTIER PARK
(RSW-002) SAMPLING LOCATION

NOVEMBER 2017

FIGURE 2

APPENDIX A

Third Quarter 2017 Rainfall Data Summary

**TABLE A
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY
NPDES PERMIT CA0001309**

Station: AREA 1
Parameter: Rain
Month/Year: July 2017

HOOR OF THE DAY, PACIFIC STANDARD TIME

	HR-BEG	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	HR-END	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	DAY																									Total
	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

D
A
Y
O
F
T
H
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M
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Flags: d = Off-line part of hour, invalid hour due to semi-annual calibration. For the off-line event, the Sage Ranch rain gauge confirmed that no rainfall was recorded during hour 07:00-08:00.

**TABLE A
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY
NPDES PERMIT CA0001309**

Station: AREA 1
Parameter: Rain
Month/Year: September 2017

HOOR OF THE DAY, PACIFIC STANDARD TIME

	HR-BEG	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
	HR-END	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
	DAY																									Total	
D	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Y	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	4	0.00	0.00	0.00	0.00	0.08	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
F	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX B

Third Quarter 2017 Waste Shipment Summary Table

**TABLE B
LIQUID WASTE SHIPMENTS**

**THIRD QUARTER 2017 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION
7/12/2017	010874270FLE	WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC (HYDROCHLORIC ACID, SULFURIC ACID)	6	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061			Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
7/18/2017	010874274FLE	HAZARDOUS WASTE, LIQUID	41,727	P	OC Vacuum Inc. 5900 Cherry Ave. Long Beach, CA 90805	n/a	n/a	US Ecology Vernon 5375 South Boyle Avenue Vernon, CA 90058
	010874276FLE	HAZARDOUS WASTE, LIQUID	41,727	P				
	010874277FLE	HAZARDOUS WASTE, LIQUID	41,727	P				
	010874278FLE	HAZARDOUS WASTE, LIQUID	41,727	P				
7/20/2017	010874269FLE	HAZARDOUS WASTE, LIQUID (TRICHLOROETHYLENE)	260	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Tri-State Motor Transit Company 8141 E 7th Street Joplin, MO 64801	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Clean Harbors Aragonite LLC 11600 North Aptus Road Grantsville, UT 84029
		HAZARDOUS WASTE, LIQUID (IRON REAGENT, WATER)	7	P				
7/28/2017	010874390FLE	HAZARDOUS WASTE, LIQUID	41,727	P	OC Vacuum Inc. 5900 Cherry Ave. Long Beach, CA 90805	n/a	n/a	US Ecology Vernon 5375 South Boyle Avenue Vernon, CA 90058
8/8/2017	010874391FLE	HAZARDOUS WASTE, LIQUID	41,727	P				
8/10/2017	010876031FLE	HAZARDOUS WASTE, LIQUID	41,727	P				
8/25/2017	015816605JJK	HAZARDOUS WASTE, LIQUID (TRICHLOROETHYLENE)	5,000	G	EnviroServe 10633 Ruchti Road South Gate, CA 90280	n/a	n/a	Clean Harbors Aragonite LLC 11600 North Aptus Road Grantsville, UT 84029
	151816606JJK	HAZARDOUS WASTE, LIQUID (TRICHLOROETHYLENE)	5,000	G				
8/28/2017	015816607JJK	HAZARDOUS WASTE, LIQUID (TRICHLOROETHYLENE)	3,000	G				
9/6/2017	011149512FLE	WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC (SULFURIC ACID)	114	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Aragonite LLC 11600 North Aptus Road Grantsville, UT 84029
	011149513FLE	NON-RCRA HAZARDOUS WASTE, LIQUIDS (OIL, WATER)	39	P				Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
	NH1704503549	NONHAZARDOUS, NON DO.OT. REGULATED (WATER)	32	P				Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029
9/13/2017	0920171050	NON-HAZARDOUS WASTE LIQUID (RAINWATER)	4,565	G	American Integrated Services, Inc. 1502 E Opp Street Wilmington, CA 90744	n/a	n/a	Crosby & Overton, Inc. 1630 W. 17th Street Long Beach, CA 90814
	0920171051	NON-HAZARDOUS WASTE LIQUID (RAINWATER)	4,700	G				
9/14/2017	0920171049	NON-HAZARDOUS WASTE LIQUID (RAINWATER)	4,700	G				

**TABLE B
LIQUID WASTE SHIPMENTS**

**THIRD QUARTER 2017 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION		
9/15/2017	010876032FLE	HAZARDOUS WASTE, LIQUID	31,712	P	OC Vacuum Inc. 5900 Cherry Ave. Long Beach, CA 90805	n/a	n/a	US Ecology Vernon 5375 South Boyle Avenue Vernon, CA 90058		
	0820171048	NON-HAZARDOUS WASTE LIQUID (RAINWATER)	2,265	G	American Integrated Services, Inc. 1502 E Opp Street Wilmington, CA 90744			Crosby & Overton, Inc. 1630 W. 17th Street Long Beach, CA 90813		
9/20/2017	011149572FLE	WASTE CORROSIVE LIQUID, ACITID, INORGANIC (HYDROCHLORIC ACID, SULFURIC ACID)	4,122	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061			n/a	n/a	Clean Harbors Aragonite LLC 11600 North Aptus Road Grantsville, UT 84029
	011149574FLE	NON-RCRA HAZARDOUS WASTE, LIQUIDS (OIL, WATER)	43	P						Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
9/26/2017	015816608JJK	HAZARDOUS WASTE, SOLID (TRICHLOROETHYLENE)	400	G	EnviroServe 10633 Ruchti Road South Gate, CA 90283			n/a	n/a	US Ecology Vernon 5375 South Boyle Avenue Vernon, CA 90061
9/28/2017	017361913JJK	POLYCHLORONATED BIPHENYLS, LIQUID	1,050	K						Chemical Waste Management 36261 Old Skyline Road Kettleman City, CA 93240

**TABLE B
LIQUID WASTE SHIPMENTS**

**THIRD QUARTER 2017 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION
7/11/2017	16378	FLUSH WATER WITH TRACE SEWAGE (HOLDING TANK)	5,000	G	Southwest Processors 4120 Bandini Blvd. Vernon, CA 90058	n/a	n/a	Southwest Processors 4120 Bandini Blvd. Vernon, CA 90058
	16379	FLUSH WATER WITH TRACE SEWAGE (CLARIFIER)	5,000	G				
7/25/2017	16342	FLUSH WATER WITH TRACE SEWAGE (HOLDING TANK)	5,000	G				
	16343	FLUSH WATER WITH TRACE SEWAGE (HOLDING TANK)	5,000	G				
8/8/2017	16791	FLUSH WATER WITH TRACE SEWAGE (HOLDING TANK)	5,000	G				
	16790	FLUSH WATER WITH TRACE SEWAGE (CLARIFIER)	5,000	G				
8/22/2017	16876	FLUSH WATER WITH TRACE SEWAGE (CLARIFIER)	5,000	G				
	16877	FLUSH WATER WITH TRACE SEWAGE (INTERCEPTOR/GREASETRAP/HOLDING TANK)	5,000	G				
9/5/2017	16965	FLUSH WATER WITH TRACE SEWAGE (CLARIFIER)	5,000	G				
9/6/2017	16942	FLUSH WATER WITH TRACE SEWAGE (HOLDING TANK)	5,000	G				
9/19/2017	16921	FLUSH WATER WITH TRACE SEWAGE (HOLDING TANK)	5,000	G				
9/20/2017	17053	FLUSH WATER WITH TRACE SEWAGE (CLARIFIER)	5,000	G				

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

**TABLE B
SOLID WASTE SHIPMENTS**

**THIRD QUARTER 2017 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION		
7/3/2017	AB1571	NON-HAZARDOUS, NON D.O.T. REGULATED (CONSTRUCTION TRASH)	20	Y	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 0206109/15/2033	n/a	n/a	Waste Management Antelope Valley 1200 W. City Ranch Road Palmdale, CA 93551		
	AB1572	NON-HAZARDOUS, NON D.O.T. REGULATED (CONSTRUCTION TRASH)	40	Y						
7/12/2017	010874269FLE	WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID (TRICHLOROETHYLENE, PERCHLOROETHYLENE)	73	P		Tri-State Motor Transit Company 8141 E 7th Street Joplin, MO 64801	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 0206109/15/2020	Clean Harbors Aragonite LLC 11600 North Aptus Road Grantsville, UT 84029		
		NON-RCRA HAZARDOUS WASTER, SOLID (POTASSIUM PERMANGANATE RESIDUE)	20	P						
		NON-RCRA HAZARDOUS WASTE SOLIDS (DEBRIS, SULFURIC ACID)	16	P						
	010874270FLE	CORROSIVE SOLID, BASIC, INORGANIC (SODIUM HYDROXIDE)	33	P						
HAZARDOUS WASTE, SOLID (TRICHLOROETHYLENE)		20	P							
7/17/2017	NH1703505474A	NON-HAZARDOUS, NON D.O.T. REGULATED	17,220	P		Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 0206109/15/2033	n/a	n/a	Waste Management Antelope Valley 1200 W. City Ranch Road Palmdale, CA 93551	
	NH1703505474B	NON-HAZARDOUS, NON D.O.T. REGULATED	22,700	P						
	NH1703505474C	NON-HAZARDOUS, NON D.O.T. REGULATED	8,700	P						
	NH1703505474F	NON-HAZARDOUS, NON D.O.T. REGULATED	19,500	P						
7/18/2017	NH1703505474D	NON-HAZARDOUS, NON D.O.T. REGULATED	17,500	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 0206109/15/2033		n/a	n/a	Clean Harbors Wilmington LLC 737 East Denni Street Wilmington, CA 90744	
	NH1703505474E	NON-HAZARDOUS, NON D.O.T. REGULATED	23,220	P						
7/31/2017	NH1703762817-1	NON-HAZARDOUS, NON D.O.T. REGULATED	12,817	P			Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 0206109/15/2033	n/a	n/a	Clean Harbors Buttonwillow LLC 2500 W. Lokern Road Buttonwillow, CA 93206
	NH1703762817-2	NON-HAZARDOUS, NON D.O.T. REGULATED	11,400	P						
	NH1703762817-3	NON-HAZARDOUS, NON D.O.T. REGULATED	10,400	P						
8/2/2017	009699696FLE	HAZARDOUS WASTE SOLID (CADMIUM, PCB)	916	K				E.C.T.I. PO Box 7318 San Bernardino, CA 92411	ARO Trucking 2500 E Woodlyn Road Pasadena, CA 91104	US Ecology Hwy 95 - 12 Miles South of Beatty Beatty, NV 89003
	NH17003855646	NON-HAZARDOUS, NON DO.T. REGULATED	20,864	P		Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 0206109/15/2029		n/a	Southwest Processors 4120 Bandini Blvd. Los Angeles, CA 90058T	

**TABLE B
SOLID WASTE SHIPMENTS**

**THIRD QUARTER 2017 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION
8/31/2017	017361219JJK	HAZARDOUS WASTE, SOLID (TRICHLOROETHYLENE)	100	P	EnviroServe 10633 Ruchti Road South Gate, CA 90281			Chemical Waste Management 36261 Old Skyline Road Kettleman City, CA 93239
		HAZARDOUS WASTE, SOLID (TRICHLOROETHYLENE)	110	P				
9/6/2017	011149512FLE	HAZARDOUS WASTE, SOLID (BENZENE, ALCOHOL, ACETONE)	9	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 0206109/15/2024	n/a	n/a	Clean Harbors Wilmington LLC 737 East Denni Street Wilmington, CA 90745
		NON-RCRA HAZARDOUS WASTE, SOLIDS (TONER CARTRIDGES)	7	P				Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Knolls, UT 84083
	NH1704503549	NONHAZARDOUS, NON DO.OT. REGULATED MATERIAL (DEBRIS)	48	P				Clean Harbors Wilmington LLC 737 East Denni Street Wilmington, CA 90744
	NH1704503549A	BATTERIES, DRY, SEALED (ALKALINE BATTERIES) UNIVERSAL WASTE	20	P				Waste Management Antelope Valley 1200 W. City Ranch Road Palmdale, CA 93551
9/20/2017	011149577FLE	NON-RCRA HAZARDOUS WASTE, SOLID (EMPTY CONTAINERS)	139	P				Chemical Waste Management 36261 Old Skyline Road Kettleman City, CA 93241
9/25/2017	AB2298	NON-HAZARDOUS, NON DO.T. REGULATED (CONSTRUCTION TRASH)	13,640	P				
9/29/2017	017361769JJK	ASBESTOS	80	Y	J. Torres Company #24 5810 S Union Ave. Bakersfield, CA 93307			

Notes:
P = Pounds
G = Gallons
K = Kilos
Y = Yards
n/a = Not Applicable

APPENDIX C

Third Quarter 2017 Discharge Monitoring Data Summary Tables

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

Notes:

1. TCDD 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 DNQ, as specified on Page 26 of the NPDES permit.
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 reported with the same number of significant figures as the Daily Maximum Benchmark Limits, Daily Maximum Permit Limits, or receiving water limits.
5. All of the following abbreviations and/or notes may not occur on every table.

-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 counting 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 permit limit established for daily maximum or monthly average.
<(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 permit.
*1	Improper preservation of sample.
*2	The inductively coupled plasma (ICP)/Matrix Spike (MS) 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

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

*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 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 %RSD (relative standard deviation) or %D (difference) were noncompliant.
Comp	Composite sample type.
C5	Calibration verification %R (recovery) 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.
F	The analyte was detected in an associated field blank (FB) or equipment blank (EB) as well as in the sample.
F1	MS and/or 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 ₃).
ICP	Interference check solution results were unsatisfactory.

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

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 (MQL), but > than MDL.
K	The sample dilution's set-up did not meet the oxygen depletion criteria of at least 2 mg/l; therefore, the reported result is an estimated value only.
L	Laboratory control sample %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 %R was below the method control limits.
LBS/DAY	Pounds per day.
LCS	Laboratory control standard.
LCSD	Laboratory control standard duplicate.
LQ	LCS/LCSD recovery above method control limits.
M1	MS and/or MSD were above the acceptance limits due to sample matrix interference.
M2	The MS and/or MS duplicate 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.
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 MS/MSD calculation does not provide useful spike recovery information.
mg/L	Milligrams per liter.
mg/kg	Milligrams per kilogram.
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.
NA	Not applicable; no permit limit established for the constituent and/or outfall.
ND	Analyte not detected.
NM	Not measured or determined or MDAs are not calculated as there is no statistical method for combining MDAs.
NTU	Nephelometric turbidity unit.

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

P	Pounds.
pCi/L	PicoCuries per liter.
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 recovery outside of control limits.
Q1	MS/MSD RPD was outside the control limit.
R	As a validation qualifier, results are rejected; the presence or absence of analyte cannot be verified.
R	(reason code in parentheses) %R for calibration not within control limits.
RL	Laboratory reporting limit.
RL-1	Reporting limit raised due to sample matrix effects.
RPD	Relative percent difference.
%R	Percent recovery.
%RSD	Percent relative standard deviation.
% survival	Percent survival.
S	Surrogate recovery was outside control limits.
s.u.	Standard Unit.
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin.
TEQ	Toxic equivalent.
T	Presumed contamination, as indicated by a detect in the trip blank.
U	Result not detected.
µg/L (ug/L)	Micrograms per liter.
µg/kg (ug/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 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 permit.

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

(4.0)3.1/-	Represents (Dry Weather Limit) Wet Weather Limit / Monthly Average Limit.
(3)	Secondary Maximum Contaminant Level.
(4)	The drinking water maximum contaminant level of 3.00E-05 ug/L is for the dioxin congener 2,3,7,8-TCDD. TCDD TEQ w/out DNQ Values is the sum of the products of the detected dioxin congener concentration multiplied by that congener's TEF and BEF. There are 17 dioxin congeners.
(a)	Based on ORDER NO. R4-2015-0033 page 17 Footnote 7, sampling event is a dry discharge. Effluent limitations for Cadmium are not applicable for discharges during dry weather.
(b)	Based on ORDER NO. R4-2015-0033 page 17 Footnote 7, sampling event is a wet discharge. Effluent limitations for Cadmium are applicable for discharges during wet weather.
(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 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 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. Effluent limitations for Selenium are applicable for discharges during dry weather discharges.
(f)	Based on ORDER NO. R4-2015-0033 page 17 Footnote 8, sampling event is a wet discharge. Effluent limitations for Selenium are not applicable for discharges during wet weather.

**ARROYO SIMI (FRONTIER PARK RECEIVING WATER)
 THIRD QUARTER 2017 REPORTING SUMMARY
 THE BOEING COMPANY
 SANTA SUSANA FIELD LABORATORY
 NPDES PERMIT CA0001309**

July 1 through September 30, 2017

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE FREQUENCY	7/25/2017		
				SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
POLLUTANTS WITH LIMITS						
4,4'-DDD	µg/L	0.0014/-	1/Quarter	Grab	ND < 0.0041	U
4,4'-DDE	µg/L	0.001/-	1/Quarter	Grab	ND < 0.0031	U
4,4'-DDT	µg/L	0.001/-	1/Quarter	Grab	ND < 0.0041	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	µg/L	0.001/-	1/Quarter	Grab	ND < 0.083	U
Chlorpyrifos	µg/L	0.02/-	1/Quarter	Grab	ND < 0.0069	U
Diazinon	µg/L	0.16/-	1/Quarter	Grab	ND < 0.0052	R (H)
Dieldrin	µg/L	0.0002/-	1/Quarter	Grab	ND < 0.0021	U
E. Coli	MPN/100mL	235/-	1/Year	Grab	ANR	ANR
pH (Field)	S.U.	6.5-8.5/-	1/Quarter	Grab	6.93	*
Toxaphene	µg/L	0.0003/-	1/Quarter	Grab	ND < 0.26	U
POLLUTANTS WITHOUT LIMITS						
Hardness	mg/L	-/-	1/Quarter	Grab	570	--
Temperature (Field)	Deg F	-/-	1/Quarter	Grab	69.24	*
Total Suspended Solids	mg/L	-/-	1/Year	Grab	ANR	ANR
Water Velocity	ft/sec	-/-	1/Quarter	Meas	0.0	*

APPENDIX D

**Third Quarter 2017 Analytical Laboratory Reports,
Chain of Custody Forms, and Validation Reports**

APPENDIX D

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Section No.

- 1 Arroyo Simi – 440-188895-1, July 25, 2017, MECx Data Validation Report
- 2 Arroyo Simi – 440-188895-1, July 25, 2017, TestAmerica Analytical Report

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: 440-188895-1

Prepared for

Haley & Aldrich, Inc.
600 South Meyer Avenue, Suite 100
Tucson, Arizona 85701

September 28, 2017

MEC^x, Inc.
8864 Interchange Drive
Houston, Texas 77054

www.mecx.net





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- 1 – Sample Identification
- 2 – Data Qualifier Reference
- 3 - Reason Code Reference



I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES

Contract: 40458-078 and 40458-083

MEC^x Project No.: 1272.003H.01

Sample Delivery Group: 440-188895-1

Project Manager: Katherine Miller

Matrix: Water

QC Level: IV

No. of Samples: 1

No. of Reanalyses/Dilutions: 0

Laboratory: TestAmerica-Irvine

TABLE 1 - SAMPLE IDENTIFICATION

Sample Name	Lab Sample Name	Sub Lab Sample ID	Matrix	Collection	Method
Arroyo_Simi_20170725_Grab	440-188895-1	N/A	Water	7/25/2017 8:10:00 AM	E525.2, E608, SM2340



II. SAMPLE MANAGEMENT

According to the case narrative, sample condition upon receipt form and the chains-of-custody (COCs) provided by the laboratories for sample delivery group (SDG) 440-188895-1:

- The laboratories received the sample in this SDG on ice and within the temperature limits of ≤ 6 degrees Celsius ($^{\circ}\text{C}$) and $> 0^{\circ}\text{C}$.
- The laboratories received the sample containers intact and properly preserved, as applicable.
- Field and laboratory personnel signed and dated the COCs.
- Custody seals were not present upon receipt at TA-Irvine; however, no evidence of tampering was noted. Custody seals were present upon receipt at Lancaster and Weck Laboratories.
- The Method 608 PCBs analysis was subcontracted to Lancaster Laboratories.
- The Method 525.2 analysis was subcontracted to Weck Laboratories.



TABLE 2 - DATA QUALIFIER REFERENCE

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. For dioxins or PCB congeners, the associated value is the quantitation limit or the estimated detection limit.	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. For perchlorate, the associated value is the sample detection limit or the quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.	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.	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may inaccurate or imprecise.	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may inaccurate or imprecise.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.	Not applicable.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.	The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.

TABLE 3 - REASON CODE REFERENCE

Reason Code	Organic	Inorganic
H	Holding time was exceeded.	Holding time was exceeded.
S	Surrogate recovery was outside control limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration percent relative standard deviation (%RSD) or percent deviation (%D) were noncompliant, or coefficient of determination (r^2) was <0.990.	Correlation coefficient (r) was <0.995.
R	Calibration relative response factor (RRF) was <0.05.	Percent recovery (%R) for calibration was outside control limits.
B	The analyte was detected in an associated blank as well as in the sample.	The analyte was detected in an associated blank as well as in the sample.
L	Laboratory control sample (LCS) or /LCS duplicate (LCSD) %R was outside the control limits.	LCS or LCSD %R was outside the control limits.
L1	LCS/LCSD relative percent difference (RPD) was outside the control limit.	LCS/LCSD RPD was outside the control limit.
Q	Matrix spike/matrix spike duplicate (MS/MSD) %R was outside control limits.	MS or MSD %R was outside the control limit.
Q1	MS/MSD RPD was outside the control limit.	MS/MSD RPD was outside the control limit.
E	Result was reported as an estimated maximum possible concentration (EMPC).	Laboratory duplicate RPD was outside the control limit.
I	Internal standard recovery was outside control limits.	Inductively coupled plasma (ICP) interference check standard (ICSA/ICSAB) result was outside control limits.
I1	Not applicable.	ICP mass spectrometer (ICPMS) internal standard recovery was outside control limits.
A	Not applicable.	Serial dilution %D was outside control limits.
M	Tuning (BFB or DFTPP) was not compliant.	ICPMS tune was not compliant.
T	The analyte was detected in an associated trip blank as well as in the sample.	Not applicable.



Reason Code	Organic	Inorganic
+	False positive – reported compound was not present.	False positive – reported compound was not present.
-	False negative – compound was present but not reported.	False negative – compound was present but not reported.
F	The analyte was detected in an associated field blank (FB) or equipment blank (EB) as well as in the sample.	The analyte was detected in an associated field blank (FB) or equipment blank (EB) as well as in the sample.
F1	Field duplicate RPD was outside the control limit.	Field duplicate RPD was outside the control limit.
§	The reviewer corrected the reported result and/or other information.	The reviewer corrected the reported result and/or other information.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis was not used because another more technically sound analysis was available.	The analysis was not used because another more technically sound analysis was available.
P	Instrument performance not compliant.	Post digestion spike recovery was outside of control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Other problems identified in the data are described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Other problems identified in the data are described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.



III. METHOD ANALYSES – 608 PCBs

L. Calvin of MEC^x reviewed the SDG on September 28, 2017

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 1)*, *EPA Method 608*, and the *National Functional Guidelines for Superfund Organic Methods Data Review (2014)*.

III.1. HOLDING TIMES

Extraction and analytical holding times were met. The sample was extracted within seven days of collection and analyzed within 40 days of extraction.

III.2. CALIBRATION

The initial calibrations had %RSDs of $\leq 10\%$ or r^2 of ≥ 0.990 on both analytical columns. The initial calibration verification (ICV) and continuing calibration verification (CCV) %Ds were within the control limit of $\leq 15\%$.

III.3. QUALITY CONTROL SAMPLES

III.3.1. METHOD BLANKS

Target compounds were not detected in method blank.

III.3.2. LABORATORY CONTROL SAMPLES

Recoveries were within the laboratory control limits of 60-117% for Aroclor 1016 and 57-134% for Aroclor 1260. RPDs were within the control limit of $\leq 30\%$.

III.3.3. SURROGATE RECOVERY

PCB surrogate decachlorobiphenyl (DCB) was recovered within the laboratory control limits of 10-148%, in the site sample.

III.3.4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were not performed on the sample of this SDG as requested on the COC (see Field Duplicates section). MEC^x evaluated method accuracy and precision based on the LCS/LCSD results.

III.4. FIELD QC SAMPLES

MEC^x evaluated field QC samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^x used the remaining detects to evaluate the associated site samples. Findings associated with field QC samples are summarized below.

III.4.1. FIELD BLANKS AND EQUIPMENT BLANKS

Field blank or equipment blank samples were not identified for this SDG.

III.4.2. FIELD DUPLICATES

Field duplicate samples were not identified in this SDG; however, the laboratory prepared and analyzed sample Arroyo_Simi_20170725_Grab in triplicate. None of the analyses had detects above the MDL. The samples were in good agreement.



III.5. COMPOUND IDENTIFICATION

Compound identification was verified. Review of the sample chromatograms and retention times indicated no issues with target compound identification. The laboratory analyzed for seven Aroclors by Method 608.

III.6. COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Reported nondetects are valid to the reporting limit.

III.7. SYSTEM PERFORMANCE

Review of the raw data indicated no problems with system performance.

IV. EPA METHODS 525.2— SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

L. Calvin of MEC^X reviewed the SDG on September 28, 2017

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^X *Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 1)*, *EPA Method 525.2*, and the *National Functional Guidelines for Superfund Organic Methods Data Review (2014)*.

IV.1. HOLDING TIMES

Analytical holding times were met; however, the water sample was extracted approximately 27 hours past the holding time of within 24 hours of collection. The nondetect result for diazinon was rejected (R). The sample was analyzed within 30 days of extraction.

IV.2. GC/MS TUNING AND CALIBRATION

As the analyses were acquired in SIM mode, tuning was not applicable.

Calibration criteria were met. The initial calibration average RRFs were ≥ 0.05 and %RSDs $\leq 30\%$ or $r^2 \geq 0.990$. The continuing calibration RRFs were ≥ 0.05 and recoveries were within the method QC limits of 70-130%.

IV.3. QUALITY CONTROL SAMPLES

IV.3.1. METHOD BLANKS

Target compounds were not detected in the method blank.

IV.3.2. LABORATORY CONTROL SAMPLES

The recoveries were within the laboratory control limits of 37-169% for chlorpyrifos and 43-152% for diazinon.

IV.3.3. SURROGATE RECOVERY

Surrogate recoveries were within the laboratory control limits.



IV.3.4. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

MS/MSD analyses were performed on sample Arroyo_Simi_20170725_Grab in this SDG. Recoveries were within the laboratory control limits of 37-168% for chlorpyrifos and 36-153% for diazinon, and RPDs were within the control limit of $\leq 30\%$.

IV.4. **FIELD QC SAMPLES**

MEC^X evaluated field QC samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^X used the remaining detects to evaluate the associated site samples. Findings associated with field QC samples are summarized below:

IV.4.1. **FIELD BLANKS AND EQUIPMENT BLANKS**

Field blank or equipment blank samples were not identified for this SDG.

IV.4.2. **FIELD DUPLICATES**

Field duplicate samples were not identified in this SDG.

IV.5. **INTERNAL STANDARDS PERFORMANCE**

The internal standard area counts were within the method control limits established by the continuing calibration standards of $\pm 30\%$ for areas and ± 10 seconds for retention times.

IV.6. **COMPOUND IDENTIFICATION**

Compound identification was verified. The laboratory analyzed for chlorpyrifos and diazinon by Method 525.2. Review of the sample chromatogram, retention times, and ion chromatograms indicated no problems with target compound identification.

IV.7. **COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS**

Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Reported nondetects are valid to the reporting limit.

IV.8. **TENTATIVELY IDENTIFIED COMPOUNDS (TICs)**

The laboratory did not report TICs for this SDG.

IV.9. **SYSTEM PERFORMANCE**

Review of the raw data indicated no problems with system performance.

V. **METHOD SM2340B—HARDNESS**

Marcia Hilchey of MEC^X reviewed the SDG on September 28, 2017.

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^X *Data Validation Procedure for Metals (DVP-5, Rev. 2)*, *Standard Method 2340B*, and the *National Functional Guidelines for Inorganic Superfund Data Review (2014)*.



V.1. HOLDING TIMES

The analytical holding time, six months for metals, was met.

V.2. CALIBRATION

ICP instrument calibration criteria were met for calcium and magnesium. CRQL recoveries were within the laboratory control limits of 50-150%. ICV and CCV recoveries were within NFG control limits of 90-110%.

V.3. QUALITY CONTROL SAMPLES

V.3.1. METHOD BLANKS

There were no target analyte detections in the method blank or calibration blanks.

V.3.2. INTERFERENCE CHECK SAMPLES:

ICS recoveries were within the control limits of 80-120% or $\pm 2\times$ the reporting limit, whichever is greater. As the target analytes utilized in the calculation of hardness were spiked interferences, the sample was not assessed for matrix interference.

V.3.3. LABORATORY CONTROL SAMPLES

Laboratory control sample recoveries were within the laboratory control limits.

V.3.4. LABORATORY DUPLICATES

Laboratory duplicate analyses were not performed on the sample in this SDG.

V.3.5. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were performed on the sample in this SDG. MS/MSD results were assessed when the parent sample results were $<4\times$ the spike concentration. Recoveries and RPDs met laboratory control limits.

V.4. SERIAL DILUTION

No serial dilution analysis was performed on the sample in this SDG.

V.5. SAMPLE RESULT VERIFICATION

Calculations were verified and the sample results reported on the sample results summary were verified against the raw data. No transcription errors or calculation errors were noted.

V.6. FIELD QC SAMPLES

MEC^X evaluated field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^X used the remaining detects to evaluate the associated site sample. Findings associated with field QC samples are summarized below.

V.6.1. FIELD BLANKS AND EQUIPMENT BLANKS

Field blank or equipment blank samples were not identified for this SDG.

V.6.2. FIELD DUPLICATES

Field duplicate samples were not identified in this SDG.

Validated Sample Result Forms: 4401888951

Analysis Method E525.2

Sample Name Arroyo_Simi_20170725_Grab Matrix Type: W Result Type: TRG

Sample Date: 7/25/2017 8:10:00 AM Validation Level: 8

Lab Sample Name: 440-188895-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Chlorpyrifos	N	2921-88-2	ND	6.9		ng/L	U	U	
Diazinon	N	333-41-5	ND	5.2		ng/L	U	R	H

Analysis Method E608

Sample Name Arroyo_Simi_20170725_Grab Matrix Type: W Result Type: TRG

Sample Date: 7/25/2017 8:10:00 AM Validation Level: 8

Lab Sample Name: 440-188895-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aroclor-1016 (PCB-1016)	N	12674-11-2	ND	0.10		ug/L	U	U	
Aroclor-1221 (PCB-1221)	N	11104-28-2	ND	0.10		ug/L	U	U	
Aroclor-1232 (PCB-1232)	N	11141-16-5	ND	0.10		ug/L	U	U	
Aroclor-1242 (PCB-1242)	N	53469-21-9	ND	0.10		ug/L	U	U	
Aroclor-1248 (PCB-1248)	N	12672-29-6	ND	0.10		ug/L	U	U	
Aroclor-1254 (PCB-1254)	N	11097-69-1	ND	0.10		ug/L	U	U	
Aroclor-1260 (PCB-1260)	N	11096-82-5	ND	0.15		ug/L	U	U	

Analysis Method SM2340

Sample Name Arroyo_Simi_20170725_Grab Matrix Type: W Result Type: TRG

Sample Date: 7/25/2017 8:10:00 AM Validation Level: 8

Lab Sample Name: 440-188895-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness as CaCO3	T	HARDNESSCA CO3	570	0.33	0.17	mg/L			

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-188895-1

Client Project/Site: Quarterly Arroyo Simi-Frontier Park

Revision: 2

For:

Haley & Aldrich, Inc.

400 E Van Buren St.

Suite 545

Phoenix, Arizona 85004

Attn: Katherine Miller



Authorized for release by:

11/2/2017 3:09:28 PM

Urvashi Patel, Manager of Project Management

(949)261-1022

urvashi.patel@testamericainc.com

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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
11/2/2017 3:09:28 PM



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Sample Summary

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

TestAmerica Job ID: 440-188895-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-188895-1	Arroyo_Simi_20170725_Grab	Water	07/25/17 08:10	07/25/17 12:45

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Case Narrative

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

TestAmerica Job ID: 440-188895-1

Job ID: 440-188895-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-188895-1

Comments

Report revised to include Final report for Weck on the 524 analysis.
Report revised second time to remove subcontract level IV package from level II report.

Receipt

The samples were received on 7/25/2017 12:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.8° C and 5.3° C.

GC Semi VOA

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

Metals

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

Subcontract non-Sister

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

Organic Prep

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

Subcontract Work

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

Method Weck-525.2-Diazinon and Chlorpyrifos: 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

TestAmerica Job ID: 440-188895-1

Client Sample ID: Arroyo_Simi_20170725_Grab

Lab Sample ID: 440-188895-1

Date Collected: 07/25/17 08:10

Matrix: Water

Date Received: 07/25/17 12:45

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.10	0.083	ug/L		07/26/17 06:21	07/26/17 13:54	1
Dieldrin	ND		0.0052	0.0021	ug/L		07/26/17 06:21	07/26/17 13:54	1
Toxaphene	ND		0.52	0.26	ug/L		07/26/17 06:21	07/26/17 13:54	1
4,4'-DDD	ND		0.0052	0.0041	ug/L		07/26/17 06:21	07/26/17 13:54	1
4,4'-DDE	ND		0.0052	0.0031	ug/L		07/26/17 06:21	07/26/17 13:54	1
4,4'-DDT	ND		0.010	0.0041	ug/L		07/26/17 06:21	07/26/17 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	50		10 - 150	07/26/17 06:21	07/26/17 13:54	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140		0.10	0.050	mg/L		08/01/17 14:48	08/04/17 14:55	1
Magnesium	56		0.020	0.010	mg/L		08/01/17 14:48	08/04/17 14:55	1

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	570		0.33	0.17	mg/L			08/07/17 16:48	1

Method Summary

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

TestAmerica Job ID: 440-188895-1

Method	Method Description	Protocol	Laboratory
608	Organochlorine Pesticides in Water	40CFR136A	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	TAL IRV
608_LL-PCB- Lancaster Labs	General Sub Contract Method	NONE	SC0103
Weck-525.2-Diazi non and Chlorpyrifos	General Sub Contract Method	NONE	Weck Lab

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

NONE = NONE

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

Laboratory References:

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

TAL IRV = 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

TestAmerica Job ID: 440-188895-1

Client Sample ID: Arroyo_Simi_20170725_Grab

Lab Sample ID: 440-188895-1

Date Collected: 07/25/17 08:10

Matrix: Water

Date Received: 07/25/17 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	608			965 mL	2 mL	419411	07/26/17 06:21	L2A	TAL IRV
Total/NA	Analysis	608		1			419457	07/26/17 13:54	KS	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	420628	08/01/17 14:48	JL	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			421403	08/04/17 14:55	B1H	TAL IRV
Total Recoverable	Analysis	SM 2340B		1			419368	08/07/17 16:48	K1E	TAL IRV

Laboratory References:

SC0103 = Lancaster Laboratories, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300
 TAL IRV = 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 Sample Results

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

TestAmerica Job ID: 440-188895-1

Method: 608 - Organochlorine Pesticides in Water

Lab Sample ID: MB 440-419411/1-A
Matrix: Water
Analysis Batch: 419457

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419411

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.10	0.080	ug/L		07/26/17 06:21	07/26/17 12:55	1
Dieldrin	ND		0.0050	0.0020	ug/L		07/26/17 06:21	07/26/17 12:55	1
Toxaphene	ND		0.50	0.25	ug/L		07/26/17 06:21	07/26/17 12:55	1
4,4'-DDD	ND		0.0050	0.0040	ug/L		07/26/17 06:21	07/26/17 12:55	1
4,4'-DDE	ND		0.0050	0.0030	ug/L		07/26/17 06:21	07/26/17 12:55	1
4,4'-DDT	ND		0.010	0.0040	ug/L		07/26/17 06:21	07/26/17 12:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		10 - 150	07/26/17 06:21	07/26/17 12:55	1

Lab Sample ID: LCS 440-419411/2-A
Matrix: Water
Analysis Batch: 419457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419411

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Dieldrin	0.200	0.157		ug/L		79	36 - 146
4,4'-DDD	0.200	0.158		ug/L		79	31 - 141
4,4'-DDE	0.200	0.165		ug/L		83	30 - 145
4,4'-DDT	0.200	0.174		ug/L		87	25 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	63		10 - 150

Lab Sample ID: 440-188895-1 MS
Matrix: Water
Analysis Batch: 419457

Client Sample ID: Arroyo_Simi_20170725_Grab
Prep Type: Total/NA
Prep Batch: 419411

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Dieldrin	ND		0.205	0.136		ug/L		66	50 - 120
4,4'-DDD	ND		0.205	0.155		ug/L		76	50 - 125
4,4'-DDE	ND		0.205	0.138		ug/L		67	45 - 125
4,4'-DDT	ND		0.205	0.163	PI	ug/L		79	50 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	53		10 - 150

Lab Sample ID: 440-188895-1 MSD
Matrix: Water
Analysis Batch: 419457

Client Sample ID: Arroyo_Simi_20170725_Grab
Prep Type: Total/NA
Prep Batch: 419411

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dieldrin	ND		0.203	0.137		ug/L		68	50 - 120	1	30
4,4'-DDD	ND		0.203	0.128		ug/L		63	50 - 125	11	30
4,4'-DDE	ND		0.203	0.135		ug/L		67	45 - 125	2	30
4,4'-DDT	ND		0.203	0.133		ug/L		66	50 - 125	20	30

TestAmerica Irvine

QC Sample Results

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

TestAmerica Job ID: 440-188895-1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: 440-188895-1 MSD
Matrix: Water
Analysis Batch: 419457

Client Sample ID: Arroyo_Simi_20170725_Grab
Prep Type: Total/NA
Prep Batch: 419411

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	51		10 - 150

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-420628/1-A
Matrix: Water
Analysis Batch: 421403

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 420628

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.10	0.050	mg/L		08/01/17 14:48	08/04/17 14:51	1
Magnesium	ND		0.020	0.010	mg/L		08/01/17 14:48	08/04/17 14:51	1

Lab Sample ID: LCS 440-420628/2-A
Matrix: Water
Analysis Batch: 421403

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 420628

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	2.50	2.62		mg/L		105	85 - 115
Magnesium	2.50	2.69		mg/L		108	85 - 115

Lab Sample ID: 440-188895-1 MS
Matrix: Water
Analysis Batch: 421403

Client Sample ID: Arroyo_Simi_20170725_Grab
Prep Type: Total Recoverable
Prep Batch: 420628

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	140		2.50	139	BB	mg/L		84	70 - 130
Magnesium	56		2.50	59.3	BB	mg/L		114	70 - 130

Lab Sample ID: 440-188895-1 MSD
Matrix: Water
Analysis Batch: 421403

Client Sample ID: Arroyo_Simi_20170725_Grab
Prep Type: Total Recoverable
Prep Batch: 420628

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	140		2.50	143	BB	mg/L		216	70 - 130	2	20
Magnesium	56		2.50	60.2	BB	mg/L		149	70 - 130	1	20

QC Association Summary

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

TestAmerica Job ID: 440-188895-1

GC Semi VOA

Prep Batch: 419411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-188895-1	Arroyo_Simi_20170725_Grab	Total/NA	Water	608	
MB 440-419411/1-A	Method Blank	Total/NA	Water	608	
LCS 440-419411/2-A	Lab Control Sample	Total/NA	Water	608	
440-188895-1 MS	Arroyo_Simi_20170725_Grab	Total/NA	Water	608	
440-188895-1 MSD	Arroyo_Simi_20170725_Grab	Total/NA	Water	608	

Analysis Batch: 419457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-188895-1	Arroyo_Simi_20170725_Grab	Total/NA	Water	608	419411
MB 440-419411/1-A	Method Blank	Total/NA	Water	608	419411
LCS 440-419411/2-A	Lab Control Sample	Total/NA	Water	608	419411
440-188895-1 MS	Arroyo_Simi_20170725_Grab	Total/NA	Water	608	419411
440-188895-1 MSD	Arroyo_Simi_20170725_Grab	Total/NA	Water	608	419411

Metals

Analysis Batch: 419368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-188895-1	Arroyo_Simi_20170725_Grab	Total Recoverable	Water	SM 2340B	

Prep Batch: 420628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-188895-1	Arroyo_Simi_20170725_Grab	Total Recoverable	Water	200.2	
MB 440-420628/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-420628/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-188895-1 MS	Arroyo_Simi_20170725_Grab	Total Recoverable	Water	200.2	
440-188895-1 MSD	Arroyo_Simi_20170725_Grab	Total Recoverable	Water	200.2	

Analysis Batch: 421403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-188895-1	Arroyo_Simi_20170725_Grab	Total Recoverable	Water	200.7 Rev 4.4	420628
MB 440-420628/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	420628
LCS 440-420628/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	420628
440-188895-1 MS	Arroyo_Simi_20170725_Grab	Total Recoverable	Water	200.7 Rev 4.4	420628
440-188895-1 MSD	Arroyo_Simi_20170725_Grab	Total Recoverable	Water	200.7 Rev 4.4	420628

Definitions/Glossary

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

TestAmerica Job ID: 440-188895-1

Qualifiers

GC Semi VOA

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

Metals

Qualifier	Qualifier Description
BB	Sample > 4X spike concentration

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

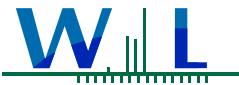
TestAmerica Job ID: 440-188895-1

Laboratory: 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	06-30-18

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders: 7G25049

Report Date: 8/01/2017

Project: 440-188895-1

Received Date: 7/25/2017

Turnaround Time: Normal

Phones: (949) 261-1022

Fax: (949) 260-3297

Attn: Urvashi Patel

P.O. #:

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

Billing Code:

Dear Urvashi Patel,

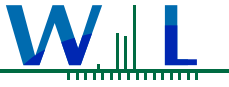
Enclosed are the results of analyses for samples received 7/25/17 with the Chain-of-Custody document. The samples were received in good condition, at 5.2 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results

Sample: Arroyo_Simi_20170725_grab (440-188895-1)
7G25049-01RE1 (Water)

Sampled: 07/25/17 8:10 by Client

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 525.2M						Prepared: 07/27/17 10:55	Analyst: EFC
Batch ID: W7G1654							
Instr: GCMS13							
Chlorpyrifos	ND	6.9	10	ng/l	1	07/31/17 21:13	
Diazinon	ND	5.2	10	ng/l	1	07/31/17 21:13	
<i>Surrogate(s)</i>							
1,3-Dimethyl-2-nitrobenzene	111%		76-128	Conc: 557		07/31/17 21:13	
Triphenyl phosphate	106%		40-163	Conc: 532		07/31/17 21:13	



WECK LABORATORIES, INC.

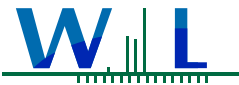
Certificate of Analysis

FINAL REPORT

Quality Control Results

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

Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W7G1654 - EPA 525.2										
Blank (W7G1654-BLK1)				Prepared: 07/27/17 Analyzed: 07/31/17						
Chlorpyrifos	ND	6.9	ng/l							
Diazinon	ND	5.2	ng/l							
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene		493	ng/l	500		99	76-128			
Triphenyl phosphate		533	ng/l	500		107	40-163			
LCS (W7G1654-BS1)				Prepared: 07/27/17 Analyzed: 07/31/17						
Chlorpyrifos	46.1	6.9	ng/l	50.0		92	37-169			
Diazinon	39.9	5.2	ng/l	50.0		80	43-152			
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene		489	ng/l	500		98	76-128			
Triphenyl phosphate		507	ng/l	500		101	40-163			
Matrix Spike (W7G1654-MS1)				Source: 7G25049-01RE1			Prepared: 07/27/17 Analyzed: 07/31/17			
Chlorpyrifos	70.6	6.9	ng/l	50.0	ND	141	37-168			
Diazinon	55.6	5.2	ng/l	50.0	ND	111	36-153			
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene		450	ng/l	500		90	76-128			
Triphenyl phosphate		504	ng/l	500		101	40-163			
Matrix Spike Dup (W7G1654-MSD1)				Source: 7G25049-01RE1			Prepared: 07/27/17 Analyzed: 07/31/17			
Chlorpyrifos	66.7	6.9	ng/l	50.0	ND	133	37-168	6	30	
Diazinon	41.9	5.2	ng/l	50.0	ND	84	36-153	28	30	
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene		538	ng/l	500		108	76-128			
Triphenyl phosphate		545	ng/l	500		109	40-163			



WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Notes and Definitions

Item	Definition
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.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
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)
MDA	Minimum Detectable Activity
NR	Not Reportable
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 MIS 002.

Reviewed by:

Kim G. Tu
Project Manager



DoD-ELAP #L2457 • ELAP-CA #1132 • EPA-UCMR #CA00211 • Guam-EPA #17-008R • HW-DOH # • ISO 17025 #L2457.01 •
 LACSD #10143 • NELAP-OR #4047 • NJ-DEP #CA015 • 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.

ANALYTICAL RESULTS

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 07, 2017

Project: Quarterly Arroyo Simi-frontier ParkSubmission Date: 07/28/2017
Group Number: 1831415
SDG: SSF05
PO Number: 440-188895-1
State of Sample Origin: CA

Lancaster Labs

Client Sample DescriptionArroyo_Simi_20170725_Grab (440-188895-1) Water
Arroyo_Simi_20170725_Grab (440-188895-1MS) Water
Arroyo_Simi_20170725_Grab (440-188895-1MSD) Water(LL) #
9127602
9127603
9127604

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Test America

Attn: Urvashi Patel

Respectfully Submitted,



Kay Hower

(717) 556-7364

Sample Description: Arroyo_Simi_20170725_Grab (440-188895-1) Water
Quarterly Arroyo Simi-frontier Park

LL Sample # WW 9127602
LL Group # 1831415
Account # 41440

Project Name: Quarterly Arroyo Simi-frontier Park

Collected: 07/25/2017 08:10

Test America

Submitted: 07/28/2017 14:30

17461 Derian Ave

Reported: 08/07/2017 10:49

Suite #100

Irvine CA 92614

20170 SDG#: SSF05-01

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Pesticides/PCBs		EPA 608	ug/l	ug/l	ug/l	
06030	PCB-1016	12674-11-2	N.D. D1	0.10	0.51	1
06030	PCB-1221	11104-28-2	N.D. D1	0.10	0.51	1
06030	PCB-1232	11141-16-5	N.D. D1	0.10	0.51	1
06030	PCB-1242	53469-21-9	N.D. D1	0.10	0.51	1
06030	PCB-1248	12672-29-6	N.D. D1	0.10	0.51	1
06030	PCB-1254	11097-69-1	N.D. D1	0.10	0.51	1
06030	PCB-1260	11096-82-5	N.D. D1	0.15	0.51	1

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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	172120021A	08/03/2017 07:17	Anita M Dale	1
11960	Method 608 PCB Water Ext.	EPA 608	1	172120021A	08/01/2017 08:00	David S Schrum	1

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

Sample Description: Arroyo_Simi_20170725_Grab (440-188895-1MS) Water
Quarterly Arroyo Simi-frontier Park

LL Sample # WW 9127603
LL Group # 1831415
Account # 41440

Project Name: Quarterly Arroyo Simi-frontier Park

Collected: 07/25/2017 08:10

Test America

Submitted: 07/28/2017 14:30

17461 Derian Ave

Reported: 08/07/2017 10:49

Suite #100

Irvine CA 92614

20171 SDG#: SSF05-02

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Pesticides/PCBs		EPA 608	ug/l	ug/l	ug/l	
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

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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	172120021A	08/03/2017 07:29	Anita M Dale	1
11960	Method 608 PCB Water Ext.	EPA 608	1	172120021A	08/01/2017 08:00	David S Schrum	1

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

Sample Description: Arroyo_Simi_20170725_Grab (440-188895-1MSD) Water
Quarterly Arroyo Simi-frontier Park

LL Sample # WW 9127604
LL Group # 1831415
Account # 41440

Project Name: Quarterly Arroyo Simi-frontier Park

Collected: 07/25/2017 08:10

Test America

Submitted: 07/28/2017 14:30

17461 Derian Ave

Reported: 08/07/2017 10:49

Suite #100

Irvine CA 92614

12223 SDG#: SSF05-03

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Pesticides/PCBs		EPA 608	ug/l	ug/l	ug/l	
06030	PCB-1016	12674-11-2	N.D. D1	0.10	0.51	1
06030	PCB-1221	11104-28-2	N.D. D1	0.10	0.51	1
06030	PCB-1232	11141-16-5	N.D. D1	0.10	0.51	1
06030	PCB-1242	53469-21-9	N.D. D1	0.10	0.51	1
06030	PCB-1248	12672-29-6	N.D. D1	0.10	0.51	1
06030	PCB-1254	11097-69-1	N.D. D1	0.10	0.51	1
06030	PCB-1260	11096-82-5	N.D. D2	0.15	0.51	1

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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	172120021A	08/03/2017 07:40	Anita M Dale	1
11960	Method 608 PCB Water Ext.	EPA 608	1	172120021A	08/01/2017 08:00	David S Schrum	1

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

Quality Control Summary

Client Name: Test America
Reported: 08/07/2017 10:49

Group Number: 1831415

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: 172120021A	Sample number(s): 9127602-9127604		
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

LCS/LCSD

Analysis Name	LCS Spike	LCS	LCSD Spike	LCSD	LCS	LCSD	LCS/LCSD	RPD	RPD
	Added ug/l	Conc ug/l	Added ug/l	Conc ug/l	%REC	%REC	Limits		
Batch number: 172120021A	Sample number(s): 9127602-9127604								
PCB-1016	5.01	4.48	5.01	4.53	89	90	60-117	1	30
PCB-1260	5.04	4.70	5.04	4.65	93	92	57-134	1	30

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. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: PCBs in Water by 608
Batch number: 172120021A

	Tetrachloro-m-xylene-D1	Decachlorobiphenyl-D1	Tetrachloro-m-xylene-D2	Decachlorobiphenyl-D2
9127602	83	97	81	95
9127603	98	106	97	109
9127604	90	98	85	97
Blank	83	100	83	98
LCS	72	100	71	99
LCSD	75	85	75	86

*- 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.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Test America
Reported: 08/07/2017 10:49

Group Number: 1831415

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. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: PCBs in Water by 608
Batch number: 172120021A

Limits: 33-137 10-148 33-137 10-148

*- 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.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



TestAmerica Irvine

17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

A:41440 C:1831415 S:9127602
Chain of Custody Record - 04



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Patel, Urvashi		Carrier Tracking No(s):		COC No: 440-113270.1		
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 #: 440-188895-1		
Address: 2425 New Holland Pike, City: Lancaster State, Zip: PA, 17601 Phone: 717-656-2300(Tel) Email:		Due Date Requested: 8/7/2017 TAT Requested (days):		Analysis Requested				Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:		
Project Name: Quarterly Arroyo Simi-Frontier Park Site:		PO #: WO #: Project #: 44009879 SSOW#:								
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (608_LL-PCB-Lancaster Labs)	Total Number of containers	Special Instructions/Note:
				Preservation Code:		X	X		1	
Arroyo_Simi_20170725_Grab (440-188895-1)		7/25/17	08:10 Pacific		Water		X		1	
Arroyo_Simi_20170725_Grab (440-188895-1MS)		7/25/17	08:10 Pacific	MS	Water		X		1	
Arroyo_Simi_20170725_Grab (440-188895-1MSD)		7/25/17	08:10 Pacific	MSD	Water		X		1	
<p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out 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.</p>										
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)			Primary Deliverable Rank: 2			Special Instructions/QC Requirements:				
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:			
Relinquished by: <i>J. Bank</i>		Date/Time: <i>7/27/17 17:00</i>		Company: <i>TAI</i>		Received by:		Date/Time:		Company:
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:
Relinquished by:		Date/Time:		Company:		Received by: <i>[Signature]</i>		Date/Time: <i>7/28/17 1430</i>		Company: <i>ELLE</i>
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:			Page 7 of 10		Cooler Temperature(s) °C and Other Remarks: <i>2.3 °C</i>				



Client: TestAmerica

Delivery and Receipt Information

Delivery Method:	<u>Fed-Ex 3</u>	Arrival Timestamp:	<u>07/28/2017 14:30</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 Simon Nies (25112) at 15:49 on 07/28/2017

Samples Chilled Details

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

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	32170023	2.3	IR	Wet	Y	Bagged	N





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

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	non-detect
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	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.		
ppb	parts per billion		
Dry weight basis	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
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.
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.

Patel, Urvashi

From: Miller, Katherine <KMiller@haleyaldrich.com>
Sent: Thursday, November 02, 2017 2:51 PM
To: Patel, Urvashi
Subject: RE: 188895 laboratory report

-External Email-

Yes, I don't want Level IV in the Level II report.

Katherine Miller
HALEY & ALDRICH
Tel: 520.289.8606

From: Patel, Urvashi [<mailto:Urvashi.Patel@testamericainc.com>]
Sent: Thursday, November 02, 2017 2:42 PM
To: Miller, Katherine <KMiller@haleyaldrich.com>
Subject: RE: 188895 laboratory report

Hi Katherine

This job required a level IV package so both Eurofins and Weck submitted the level IV package. I'm not sure how I'll be able to post the level IV onto Total Access if its not included in the level II report. Let me know if you want me to re-issue without Level IV from subcontract.

URVASHI PATEL
Manager of Project Management

Test America

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Ave, Suite #100
Irvine, CA 92614
TEL 949-261-1022 | FAX 949-260-3297
DIRECT 949-260-3269
CELL 949-333-9055

www.testamericainc.com

From: Miller, Katherine [<mailto:KMiller@haleyaldrich.com>]
Sent: Thursday, November 02, 2017 2:26 PM
To: Patel, Urvashi
Subject: 188895 laboratory report
Importance: High

-External Email-

Urvashi,

The Level 2 report for Arroyo Simi 188895 has raw data for the subcontracted portion. Please remove and reissue the report. Please ensure this is caught before the final report is issued.

Katherine Miller

Project Manager

Haley Aldrich, Inc.

600 South Meyer Ave. | Suite 100

Tucson, AZ 85701

T: (520) 289.8606

C: (520) 904.6944

www.haleyaldrich.com

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CHAIN OF CUSTODY FORM

<p>Client Name/Address: Halley & Aldrich 9040 Friars Road Suite 220 San Diego, CA 92108-5960</p>		<p>Project: Boeing-SSFL NPDES Permit 2015 Quarterly Arroyo Simi-Frontier Park Dry Weather</p>			<p>Field Readings (Include units) Time of Readings: 8:15 AM pH 6.93 pH unit Temp 20.69 °C Velocity 0 ft/sec</p>		<p>Meter serial #</p>			
<p>Test America Contact: Urvasi Patei 17461 Detian Ave Suite #100 Irvine CA 92614 Tel 949-280-3269 Cell 949-333-9055</p>		<p>Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)</p>			<p>Field readings as checked by: Dwayne Baluran Date/Time: 7/25/17 8:00 AM</p>		<p>Hardness as CaCO3 Recoverable (SM2340B) X Chlorpyrifos, Diazinon (ES252) X Pesticides: Chlordane, 4-4-DD, 4-DDE, 4-DDT, Dieldrin, Toxaphene + PCBs only (E608) X</p>		<p>ANALYSIS REQUIRED</p>	
<p>TestAmerica's services under this CoC shall be performed in accordance with the TACs within Blanket Service Agreement# 2015-18-1, TestAmerica by and between Halley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.</p>		<p>Field Manager: Mark Dominick 818.350.7312, 818.599.0702 (cell)</p>		<p>Comments</p>		<p>Extract within 24-Hours of sampling.</p>		<p>Hold</p>		
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	Bottle #	MS/MSD		
Arroyo Simi	Arroyo_Simi_20170725_Grab	07/25/2017 08:10 AM	WS	250 mL Poly	3	HNO3	100	Yes	X	
			WS	1L Glass Amber	6	HCl	275	Yes	X	
			WS	1L Glass Amber	6	None	285	Yes		
	Arroyo_Simi_20170725_Extra	07/25/2017 08:10 AM	WS	1L Glass Amber	2	HCl	275	No	H	
			WS	1L Glass Amber	2	None	285	No	H	

Relinquished By <i>Dwayne Baluran</i>	Date/Time: 7/25/17 10:00 AM	Company: H&A	Received By: <i>[Signature]</i>	Date/Time: 7/25/17 10:00 TA	Turn-around time: (Check) 24 Hour: ___ 72 Hour: ___ 10 Day: X 48 Hour: ___ 5 Day: ___ Normal: ___
Relinquished By <i>[Signature]</i>	Date/Time: 7/25/17 12:45	Company: TA	Received By: <i>[Signature]</i>	Date/Time: 7/25/17 12:45	Sample integrity: (Check) Intact: ___ On Ice: ___ Store samples for 6 months: Data Requirements: (Check) No Level IV: ___ All Level IV: X

Temp 0.1"/0.8"
 4.6"/5.8"
 IR-66



Chain of Custody Record

TestAmerica Laboratories, Inc.
 COC No. _____ of _____ COCs
 Job No. _____
 SDG No. _____

Project Manager: Urvashi Patel
Tel/Fax: 949-261-1022

Lab Contact: Urvashi Patel

Client Contact
17461 Derian Ave
Suite 100
Irvine, CA 92614
Tel: (949) 261-1022 / Fax: (949) 260-3297

Analysis Turnaround Time
 Work Days (W) _____
 TAT if different from Below _____
 Standard
 5 days
 2 days
 1 day

Sample Identification
 Sample Date: 7/25/17 0810
 Sample Time: ↓
 Sample Type: W
 Matrix: W
 # of Cont.: 2
 Filtered Sample: X
 525.2-Diazinon and Chlorpyrifos

Sample Specific Notes:
 Extract within 24 hours of sample time!
 STANDARD TAT for analysis!

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other
 Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Relinquished by: _____ Date/Time: 7/25/17 1030
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-188895-1

Login Number: 188895

List Number: 1

Creator: Avila, Stephanie 1

List Source: TestAmerica Irvine

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