

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 = STORM WATER TREATMENT SYSTEM

LEGEND

ACTIVE NPDES OUTFALL LOCATION	FORMER NPDES OUTFALL LOCATION	POSSIBLE FUTURE NPDES OUTFALL LOCATION	SLOPE DRAIN DISCHARGE POINT TO NORTHERN DRAINAGE	CULVERT MODIFICATION	ISRA PERFORMANCE MONITORING LOCATION	BMP MONITORING LOCATION	GROUNDWATER EXTRACTION AND TREATMENT (GET) SYSTEM	STORMWATER TREATMENT SYSTEM	IEL STUDY AREA
CHECK STRUCTURE - MOSTLY NATURAL SANDSTONE, SOME RIP RAP	CHECK STRUCTURE - RIP RAP	CHECK STRUCTURE - VEGETATED RIP RAP	SLOPE DRAIN WITH UNDERLYING CHECK STRUCTURE AND ENERGY DISSIPATING GRAVEL AT INFLUENT END	DRAINAGE	PAVED ROAD	DIRT ROAD	STORMWATER CONVEYANCE PIPELINE WITH FLOW DIRECTION	25' ELEVATION CONTOUR	ISRA EXCAVATION BOUNDARY
BIOFILTER	BIOSWALE	NORTHERN DRAINAGE	SURFACE WATER POND	EXISTING BUILDING/STRUCTURE	SANTA SUSANA SITE PROPERTY BOUNDARY	ADMINISTRATIVE AREA BOUNDARY			

HALEY ALDRICH

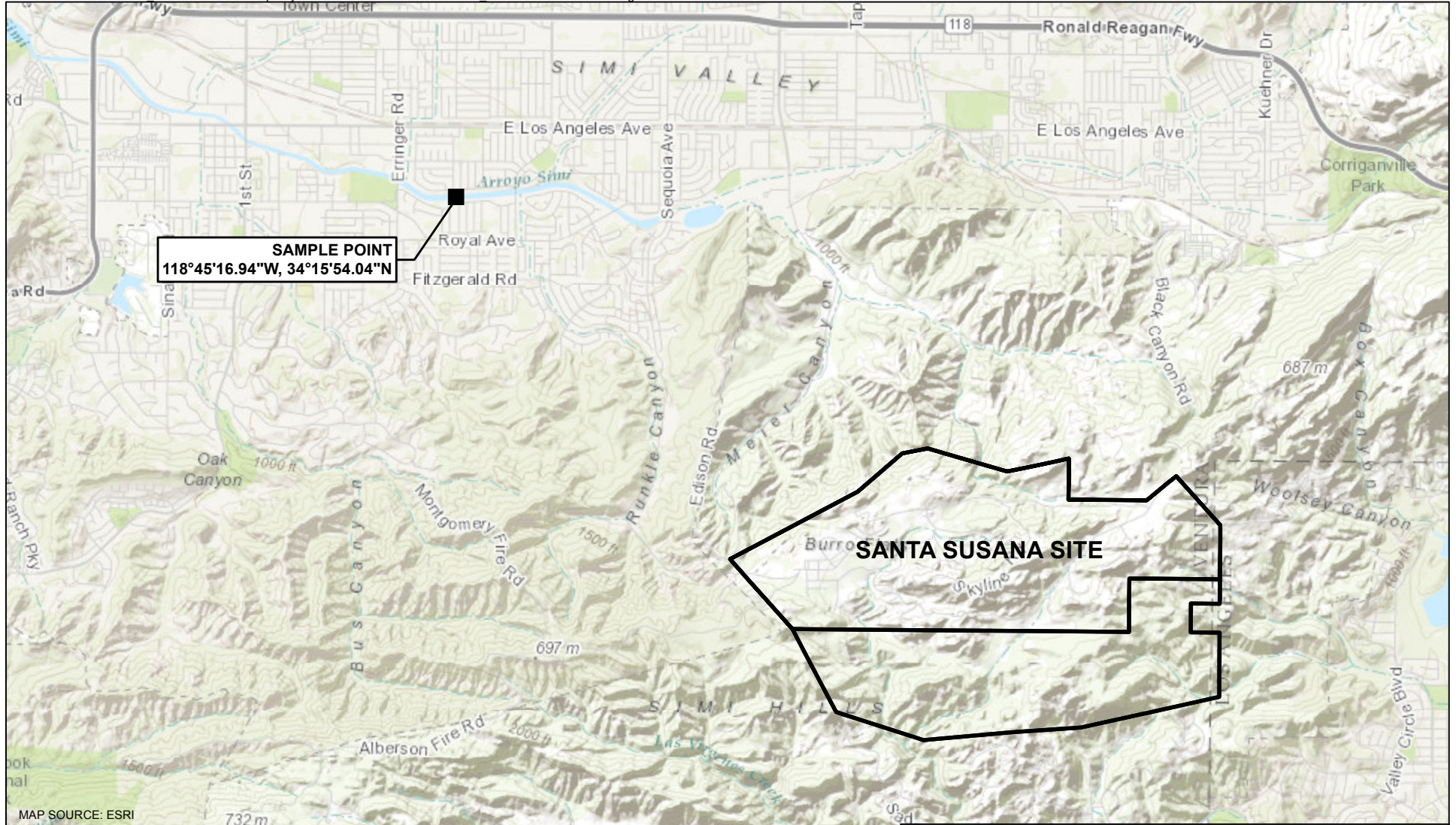
NPDES PERMIT COMPLIANCE THIRD QUARTER 2015 DISCHARGE MONITORING REPORT THE BOEING COMPANY VENTURA COUNTY, CALIFORNIA

SITE MAP WITH STORMWATER COLLECTION AND CONVEYANCE SYSTEM AND SITE FEATURES

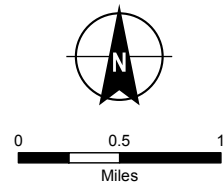
SCALE: AS SHOWN
NOVEMBER 2015

FIGURE 1

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MAP SOURCE: ESRI



**HALEY
ALDRICH**

NPDES PERMIT COMPLIANCE THIRD QUARTER 2015
DISCHARGE MONITORING REPORT
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

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

NOVEMBER 2015

FIGURE 2

APPENDIX A

Third Quarter 2015 Rainfall Data Summary

**TABLE A
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY
NPDES PERMIT CA0001309**

Station: AREA 1
Parameter: Rain
Month/Year: July 2015

HOURLY OF THE DAY

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	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	
	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	
	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	
	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	
	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	
	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	
	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	
D A Y O F T H E M O N T H	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	
	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	
	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	
	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	
	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	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00
	13	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00	0.00	0.00	0.00	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	0.08	0.17	0.09	0.32	0.10	0.04	0.00	0.00	0.00	0.00	0.80
	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	0.02	0.01	0.00	0.00	0.00	0.03
	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	0.00	0.00	0.00	0.00	0.00	0.00	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

Flags: p = Power failure, invalid hour. The Sage Ranch rain gauge confirmed that no rainfall was recorded.

d = Marked down, invalid hour. The Sage Ranch rain gauge confirmed that no rainfall was recorded.

Notes: The Sage Ranch rain gauge data is located at: <http://www.vcwatershed.net/hydrodata/php/getstation.php?siteid=272#top>

**TABLE A
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY
NPDES PERMIT CA0001309**

Station: AREA 1
Parameter: Rain
Month/Year: August 2015

HOOR OF THE DAY

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	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	
	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	
	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	
	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	
	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	
	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	
	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	
D A Y O F T H E M O N T H	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.00
	9	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.00
	10	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.00
	11	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.01
	12	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.00
	13	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.00
	14	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.00
	15	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.00
	16	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	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	0.00p	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00p	0.00P	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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

Flags: p = Power Failure, Invalid Hour. The Sage Ranch rain gauge confirmed that no rainfall was recorded.

P = Power Failure, Valid Hour. The Sage Ranch rain gauge confirmed that no rainfall was recorded.

PF = Power Failure. The Sage Ranch rain gauge indicated 0.00 for every hour unless otherwise noted. At 0400 on August 11, 0.01" was recorded at the Sage Ranch rain gauge and was added to the Area I rain gauge data for a total of 0.01" on August 11.

Notes: The Sage Ranch rain gauge data is located at: <http://www.vcwatershed.net/hydrodata/php/getstation.php?siteid=272#top>

**TABLE A
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY
NPDES PERMIT CA0001309**

Station: AREA 1
Parameter: Rain
Month/Year: September 2015

HOUR OF THE DAY

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	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
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
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
O	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
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
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
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
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
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
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
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
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
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
	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
	15	0.00	0.00	0.16	0.39	0.28	0.06	0.06	0.11	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.10
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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

APPENDIX B

Third Quarter 2015 Liquid Waste Shipment Summary Table

**TABLE B
LIQUID WASTE SHIPMENTS**

**THIRD QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
7/1/2015	312640	NON HAZARDOUS LIQUID (WATER)	1039	P	Clean Harbors Environmental Services Inc.	Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knotts, Grantsville, UT 34029
7/1/2015	008825945FLE	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	10	P	Clean Harbors Environmental Services Inc.	Clean Harbors - Aragonite LLC 11600 North Aptus Road, Grantsville, UT 34029
7/15/2015	008826028FLE	WASTE FLAMMABLE LIQUID (METHYL ETHYL KETONE)	123	P		
		HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	2268	P		
		NON RCRA HAZARDOUS WASTE LIQUIDS (POTASSIUM PERMANGANATE. GLASS) (POTASSIUM PERMANGANATE)	21	P		
		NON RCRA HAZARDOUS WASTE LIQUIDS (LATEX PAINTS)	90	P		
7/15/2015	Z1797	NON HAZARDOUS LIQUID (WATER)	77	P	Clean Harbors Environmental Services Inc.	Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knotts, Grantsville, UT 34029
8/5/2015	008826171FLE	NON RCRA HAZARDOUS WASTE LIQUIDS (HYDREX)	504	P	Clean Harbors Environmental Services Inc.	Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knotts, Grantsville, UT 34029
		NON RCRA HAZARDOUS WASTE LIQUIDS (HYDREX)	470	P		
8/6/2015	014500296JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	2500	G	Environmental Recovery Services, Inc.	Evoqua Water Technologies LLC 5375 South Boyle Avenue, Los Angeles, CA 90058
8/26/2015	008826336FLE	WASTE CORROSIVE LIQUIDS (SODIUM HYDROXIDE, SODIUM CYANIDE)	17	P	Clean Harbors Environmental Services Inc.	Clean Harbors - Aragonite LLC 11600 North Aptus Road, Grantsville, UT 34029
8/26/2015	008826337FLE	WASTE CORROSIVE LIQUIDS (HYDROCHLORIC ACID, SULFURIC ACID)	11	P		
		WASTE SODIUM HYDROXIDE SOLUTION	13	P		
		NON RCRA HAZARDOUS WASTE LIQUIDS (IRON REAGENT, WATER)	11	P		
8/28/2015	010386115JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	1094	P		
9/1/2015	010386116JJK	HAZARDOUS WASTE LIQUID (CALIBRATION SOLUTION)	5	P	Clean Harbors Environmental Services Inc.	Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knotts, Grantsville, UT 34029
9/9/2015	009113968FLE	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	2291	P	Clean Harbors Environmental Services Inc.	Clean Harbors - Aragonite LLC 11600 North Aptus Road, Grantsville, UT 34029
9/10/2015	014500297JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	5000	G	Environmental Recovery Services, Inc.	Evoqua Water Technologies LLC 5375 South Boyle Avenue, Los Angeles, CA 90058
9/30/2015	010386117JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	29580	P	Clean Harbors Environmental Services Inc.	Evoqua Water Technologies LLC 5375 South Boyle Avenue, Los Angeles, CA 90058

**TABLE B
LIQUID WASTE SHIPMENTS**

**THIRD QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
7/14/2015	12795	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G	Southwest Processors Inc. 4120 Bandini Blvd. Vernon, CA 90058	LACSD
7/14/2015	12796	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
7/28/2015	12861	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
7/28/2015	12862	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
8/11/2015	12925	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
8/11/2015	12926	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
8/25/2015	13005	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
8/25/2015	13006	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
9/9/2015	13580	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
9/9/2015	13581	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
9/22/2015	13651	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
9/22/2015	13652	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		

Notes:
P = Pounds
G = Gallons

APPENDIX C

Third Quarter 2015 Discharge Monitoring Data Summary Tables

**THIRD QUARTER 2015
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. All of the following abbreviations and/or notes may not occur on every table.
4. 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.

-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.
\$	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 DL, MDL, or 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 ICP/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
*10	value was estimated detect or estimated non detect (J,UJ) due to deficiencies in quantitation of the constituent including constituents

**THIRD QUARTER 2015
REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

	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 indicate 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.)
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 or %D were noncompliant
Comp	Composite sample type
C5	Calibration verification %R was outside method control limits
CEs/100 ml	cell equivalents per 100 milliliters
D	The analysis with this flag should not be used because another more technically sound analysis is available
%D	percent difference between the initial and continuing calibration relative response factors
deg 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
ft/sec	feet per second
G	gallons
H	holding time was exceeded
I	ICP interference check solution results were unsatisfactory
J	estimated value, result lower than the detection limit
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.
L2	the laboratory control sample %R was below the method control limits
L	laboratory control sample %R was outside control limits
lbs/day	Pounds per day
LOD	limit of detection

**THIRD QUARTER 2015
REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

LQ	LCS/LCSD recovery above method control limits
M1	matrix spike (MS) and/or MS duplicate 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
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
NA	not applicable; no permit limit established for the constituent and/or outfall or MDAs are not calculated as there is no statistical method for combining MDAs
ND	analyte value less than the LOD or MDL
NM	not measured or determined
NTU	nephelometric turbidity unit
P	pounds
pCi/L	picoCuries per liter
Q	matrix spike recovery outside of control limits
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
%RSD	percent relative standard deviation
% survival	percent survival
S	surrogate recovery was outside control limits
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TEQ	toxic equivalent
T	presumed contamination, as indicated by a detect in the trip blank
TU _c	toxicity units (chronic)
U	result not detected
µg/L	micrograms per liter
µg/kg	micrograms per kilogram
UJ	result not detected at the estimated reporting limit
umhos/cm	micromhos per centimeter

**THIRD QUARTER 2015
REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

- WHO TEF World Health Organization toxic equivalency factor
w/out without
^ analysis not completed due to hold time exceedence 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 inches 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
- (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 toxicity equivalency factor (TEF) and
bioaccumulation equivalency factor (BEF). There are 17 dioxin
congeners.

ARROYO SIMI (FRONTIER PARK RECEIVING WATER)

THIRD QUARTER 2015 REPORTING SUMMARY

THE BOEING COMPANY

SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

July 1 through September 30, 2015

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE FREQUENCY	8/11/2015		
				SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
POLLUTANTS WITH LIMITS						
4,4'-DDD	ug/L	0.0014/-	1/Quarter	Grab	ND < 0.0042	U
4,4'-DDE	ug/L	0.001/-	1/Quarter	Grab	ND < 0.0031	U
4,4'-DDT	ug/L	0.001/-	1/Quarter	Grab	ND < 0.0042	U
Aroclor 1016	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.26	U
Aroclor 1221	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.26	U
Aroclor 1232	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.26	U
Aroclor 1242	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.26	U
Aroclor 1248	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.26	U
Aroclor 1254	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.26	U
Aroclor 1260	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.26	U
Chlordane	ug/L	0.001/-	1/Quarter	Grab	ND < 0.083	U
Chlorpyrifos	ug/L	0.02/-	1/Quarter	Grab	ND < 0.49	U
Diazinon	ug/L	0.16/-	1/Quarter	Grab	ND < 0.12	U
Dieldrin	ug/L	0.0002/-	1/Quarter	Grab	ND < 0.0021	U
E. Coli	MPN/100 ml	235/-	1/Year	ANR	ANR	ANR
pH (Field)	pH units	6.5-8.5/-	1/Quarter	Grab	7.41	*
Toxaphene	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.26	U
POLLUTANTS WITHOUT LIMITS						
Hardness as CaCO3, Total	mg/L	-/-	1/Quarter	Grab	700	--
Temperature (Field)	deg F	-/-	1/Quarter	Grab	77.85	*
Total Suspended Solids	mg/L	-/-	1/Year	ANR	ANR	ANR
Water Velocity	ft/sec	-/-	1/Quarter	Grab	0.0	*

APPENDIX D

**Third Quarter 2015 Analytical Laboratory Report,
Chain of Custody, and Validation Report**

APPENDIX D

TABLE OF CONTENTS

Section No.

- 1 Arroyo Simi-Frontier Park – August 11, 2015 - MEC^x Data Validation Report
- 2 Arroyo Simi-Frontier Park – August 11, 2015 - Test America Analytical Laboratory Report



DATA VALIDATION REPORT

Haley & Aldrich Boeing SSFL Stormwater

SAMPLE DELIVERY GROUP: 440-117664-1

Prepared by

MEC^x
12269 East Vassar Drive
Aurora, CO 80014



I. INTRODUCTION

Task Order Title: Haley & Aldrich Boeing SSFL Stormwater
 Contract Task Order: 1272.003H.01 001
 Sample Delivery Group: 440-117664-1
 Project Manager: K. Miller
 Matrix: Water
 QC Level: IV
 No. of Samples: 1
 No. of Reanalyses/Dilutions: 0
 Laboratory: TestAmerica Irvine

Table 1. Sample Identification

<i>Sample Name</i>	<i>Lab Sample Name</i>	<i>Sub-Lab Sample Name</i>	<i>Matrix</i>	<i>Collection</i>	<i>Method</i>
ArroyoSimi_20150811	440-117664-1	N/A	Water	8/11/2015 11:25:00 AM	E525.2, E608, SM2340

II. Sample Management

Anomalies regarding sample management were not observed. The sample in this sample delivery group (SDG) was received at the laboratory on ice and within the temperature limits of <6°C but >0°C. According to the case narrative for this SDG, the sample containers were received intact and properly preserved, as applicable. The chain-of-custody (COC) was appropriately signed and dated by field and laboratory personnel. Custody seals were not utilized as the sample was delivered to the laboratory by courier.



Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

**Reason Code Reference Table**

Reason Code	Organic	Inorganic
H	Holding time was exceeded.	Holding time was exceeded.
S	Surrogate recovery was outside control limits.	Not applicable.
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.
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.
*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

A. EPA METHOD 200.7 and Standard Method SM2340B—Hardness

Reviewed By: P. Meeks

Date Reviewed: September 18, 2015

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Method 200.7, Standard Method for the Examination of Water and Wastewater Method 2340B*, and the *National Functional Guidelines for Inorganic Data Review (2014) (NFG)*.

- Holding Times: The analytical holding time, six months, was met.
- Calibration: The NFG requires five non-zero standards and a blank for the initial calibration. The laboratory analyzed three standards and blank. Generally, the additional standards help establish the lower end of the calibration curve; therefore, because the site sample results were within the linear range of the instrument but above the highest calibration standard, the reviewer deemed no qualifications were necessary.

The non-zero initial calibration standard results were within $\pm 30\%$ of the true values. The initial calibration correlation coefficients were ≥ 0.995 and the intercepts were less than the reporting limits. The ICV and CCV recoveries were within the control limits of 90-110%. The CRI recoveries were within the control limits of 70-130%.

- Blanks: The method blank and CCBs had no detects affecting the sample results.
- Interference Check Samples: Recoveries were within 80-120%.
- Laboratory Control Samples (LCS): The recoveries were within the method control limits of 85-115%.
- Laboratory Duplicates: Laboratory duplicate analyses were not performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate (MS/MSD): MS/MSD analyses were performed on the sample in this SDG for calcium and magnesium. As the sample results were more than $4\times$ the spike amount, the results were not assessed. MEC^X evaluated method accuracy based on LCS results.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. Detects between the method detection limit and the



reporting limit were qualified as estimated (J) and coded with DNQ in order to comply with the NPDES permit. Reported nondetects are valid to the method detection limit (MDL).

- 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.
 - Field Blanks and Equipment Blanks: Field blank or equipment blank samples were not identified for this SDG.
 - Field Duplicates: Field duplicate samples were not identified in this SDG.

B. EPA METHOD 525.2—Semivolatile Organic Compounds (SVOCs)

Reviewed By: L. Calvin

Date Reviewed: September 11, 2015

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. 0)*, EPA Method 525.2, and the *National Functional Guidelines for Organic Methods Data Review (2014)*.

- Holding Times: The sample was extracted within 24 hours of collection, as required for diazinon, and analyzed within 30 days of extraction.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The sample was analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria were met. The initial calibration average RRFs were ≥ 0.05 and %RSDs $\leq 30\%$. The continuing calibration RRFs were ≥ 0.05 and recoveries were within the method control limits of 70-130%.
- Blanks: The method blank had no target compound detects.
- Laboratory Control Sample/LCS Duplicate (LCS/LCSD): The recoveries and RPDs were within laboratory-established control limits of 70-130% and $\leq 30\%$, respectively.
- Surrogate Recovery: The surrogates were recovered within the control limits of 70-130%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG. The recoveries and RPDs were within the laboratory-established control limits of 70-130% and $\leq 30\%$, respectively.
- 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.

- Field Blanks and Equipment Blanks: Field blank or equipment blank samples were not identified for this SDG.
- Field Duplicates: Field duplicate samples were not identified in this SDG.
- Internal Standards Performance: Internal standards acenaphthene-d10 and chrysene-d12 were recovered below the control limits in the sample; however, as neither of the requested target compounds referenced those internal standards, no qualifications were required. Remaining internal standard area counts were within the method control limits established by the continuing calibration standards of $\pm 30\%$. The retention times were within ± 30 seconds.
- 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 spectra indicated no problems with target compound identification.
- 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. Results reported below the reporting limit were qualified as estimated (J) and coded with DNQ in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this analysis.
- System Performance: Review of the raw data indicated no problems with system performance.

C. EPA METHOD 608—Pesticides and PCBs

Reviewed By: L. Calvin

Date Reviewed: September 14, 2015

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 0)*, *EPA Method 608*, and the *National Functional Guidelines for Organic Methods Data Review (2014)*.

- 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.



- Calibration: The initial calibrations had %RSDs of $\leq 10\%$ or r^2 of ≥ 0.990 on both analytical columns. The secondary column of one CCV bracketing the sample analysis had %Ds for two Aroclor 1254 peaks (15.9% and 16.0%) and one Aroclor 1260 peak (16.8%) exceeding the control limit; however, as the %Ds were associated with high recoveries and the compounds were not detected in the sample, no qualifications were applied. The remaining ICVs and CCVs bracketing the sample analyses had %Ds within the control limit of $\leq 15\%$. The breakdown totals for endrin and 4,4'-DDT were $\leq 15\%$.
- Blanks: The method blanks had no target compound detects.
- Laboratory Control Samples: Recoveries were within the laboratory-established control limits. Chlordane and toxaphene were not spiked in the pesticide LCS.
- Surrogate Recovery: Pesticide surrogate tetrachloro-m-xylene (TCMX) and PCB surrogate decachlorobiphenyl (DCB) were recovered within the laboratory control limits of 10-139% and 29-115%, respectively.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample from this SDG. Recoveries and RPDs were within the laboratory control limits. Chlordane and toxaphene were not spiked in the pesticide MS/MSD.
- 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.
 - Field Blanks and Equipment Blanks: Field blank or equipment blank samples were not identified for this SDG.
 - Field Duplicates: Field duplicate samples were not identified in this SDG.
- Compound Identification: Compound identification was verified. Review of the sample chromatograms and retention times indicated no problems with target compound identification. The laboratory analyzed for select pesticides and seven Aroclors by Method 608.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibrations and the laboratory MDLs. Results reported below the reporting limit were qualified as estimated (J) and coded with DNQ in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.

Validated Sample Result Forms: 4401176641

Analysis Method E525.2

Sample Name ArroyoSimi_20150811 Matrix Type: WS Result Type: TRG

Sample Date: 8/11/2015 11:25:00 AM Validation Level: 8

Lab Sample Name: 440-117664-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Chlorpyrifos	N	2921-88-2	ND	0.98	0.49	ug/L	U	U	
Diazinon	N	333-41-5	ND	0.24	0.12	ug/L	U	U	

Analysis Method E608

Sample Name ArroyoSimi_20150811 Matrix Type: WS Result Type: TRG

Sample Date: 8/11/2015 11:25:00 AM Validation Level: 8

Lab Sample Name: 440-117664-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
4,4'-DDD	N	72-54-8	ND	0.0052	0.0042	ug/L	U	U	
4,4'-DDE	N	72-55-9	ND	0.0052	0.0031	ug/L	U	U	
4,4'-DDT	N	50-29-3	ND	0.010	0.0042	ug/L	U	U	
Aroclor-1016 (PCB-1016)	N	12674-11-2	ND	0.52	0.26	ug/L	U	U	
Aroclor-1221 (PCB-1221)	N	11104-28-2	ND	0.52	0.26	ug/L	U	U	
Aroclor-1232 (PCB-1232)	N	11141-16-5	ND	0.52	0.26	ug/L	U	U	
Aroclor-1242 (PCB-1242)	N	53469-21-9	ND	0.52	0.26	ug/L	U	U	
Aroclor-1248 (PCB-1248)	N	12672-29-6	ND	0.52	0.26	ug/L	U	U	
Aroclor-1254 (PCB-1254)	N	11097-69-1	ND	0.52	0.26	ug/L	U	U	
Aroclor-1260 (PCB-1260)	N	11096-82-5	ND	0.52	0.26	ug/L	U	U	
Chlordane	N	57-74-9	ND	0.10	0.083	ug/L	U	U	
Dieldrin	N	60-57-1	ND	0.0052	0.0021	ug/L	U	U	
Toxaphene	N	8001-35-2	ND	0.52	0.26	ug/L	U	U	

Analysis Method SM2340

Sample Name ArroyoSimi_20150811 Matrix Type: WS Result Type: TRG

Sample Date: 8/11/2015 11:25:00 AM Validation Level: 8

Lab Sample Name: 440-117664-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness as CaCO3	T	HARDNESSCA CO3	700	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: 440-117664-1

Client Project/Site: Quarterly Arroyo Simi-Frontier Park

For:

Haley & Aldrich, Inc.

5333 Mission Center Road

Suite 300

San Diego, California 92108

Attn: Nancy Gardiner



Authorized for release by:

9/3/2015 11:22:58 AM

Debby Wilson, Manager of Project Management

(949)261-1022

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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.



Debby Wilson
Manager of Project Management
9/3/2015 11:22:58 AM



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Sample Summary

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

TestAmerica Job ID: 440-117664-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-117664-1	ArroyoSimi_20150811	Water	08/11/15 11:25	08/11/15 16:10

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

Case Narrative

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

TestAmerica Job ID: 440-117664-1

Job ID: 440-117664-1

Laboratory: TestAmerica Irvine

Narrative

**Job Narrative
440-117664-1**

Comments

No additional comments.

Receipt

The samples were received on 8/11/2015 4:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.0° C and 2.2° C.

GC/MS Semi VOA

Method(s) 525.2: Internal standard responses were below acceptance limits low for Acenaphthene-d10 for the following sample: ArroyoSimi_20150811 (440-117664-1[MS]). The sample(s) shows evidence of matrix interference. Laboratory Control Spike and Laboratory Control Spike Duplicate (LCS/LCSD) were within acceptance limits. The sample used as the source showed evidence of matrix interference during the extraction procedure.

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

GC Semi VOA

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

Metals

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

Organic Prep

Method(s) 525.2: The following samples were dirty, resulting in clogging of the filters: ArroyoSimi_20150811 (440-117664-1), ArroyoSimi_20150811 (440-117664-1[MS]) and ArroyoSimi_20150811 (440-117664-1[MSD])

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

Client Sample Results

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

TestAmerica Job ID: 440-117664-1

Client Sample ID: ArroyoSimi_20150811

Lab Sample ID: 440-117664-1

Date Collected: 08/11/15 11:25

Matrix: Water

Date Received: 08/11/15 16:10

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND		0.98	0.49	ug/L		08/11/15 17:38	08/13/15 13:31	1
Diazinon	ND		0.24	0.12	ug/L		08/11/15 17:38	08/13/15 13:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,3-Dimethyl-2-nitrobenzene	98		70 - 130				08/11/15 17:38	08/13/15 13:31	1
Perylene-d12	82		70 - 130				08/11/15 17:38	08/13/15 13:31	1
Triphenylphosphate	111		70 - 130				08/11/15 17:38	08/13/15 13:31	1

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		08/12/15 07:15	08/13/15 19:10	1
Dieldrin	ND		0.0052	0.0021	ug/L		08/12/15 07:15	08/13/15 19:10	1
Toxaphene	ND		0.52	0.26	ug/L		08/12/15 07:15	08/13/15 19:10	1
4,4'-DDD	ND		0.0052	0.0042	ug/L		08/12/15 07:15	08/13/15 19:10	1
4,4'-DDE	ND		0.0052	0.0031	ug/L		08/12/15 07:15	08/13/15 19:10	1
4,4'-DDT	ND		0.010	0.0042	ug/L		08/12/15 07:15	08/13/15 19:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	47		10 - 139				08/12/15 07:15	08/13/15 19:10	1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.52	0.26	ug/L		08/12/15 07:15	08/13/15 12:34	1
Aroclor 1221	ND		0.52	0.26	ug/L		08/12/15 07:15	08/13/15 12:34	1
Aroclor 1232	ND		0.52	0.26	ug/L		08/12/15 07:15	08/13/15 12:34	1
Aroclor 1242	ND		0.52	0.26	ug/L		08/12/15 07:15	08/13/15 12:34	1
Aroclor 1248	ND		0.52	0.26	ug/L		08/12/15 07:15	08/13/15 12:34	1
Aroclor 1254	ND		0.52	0.26	ug/L		08/12/15 07:15	08/13/15 12:34	1
Aroclor 1260	ND		0.52	0.26	ug/L		08/12/15 07:15	08/13/15 12:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	59		29 - 115				08/12/15 07:15	08/13/15 12:34	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	700		0.33	0.17	mg/L			08/26/15 19:40	1

Method Summary

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

TestAmerica Job ID: 440-117664-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	TAL IRV
608	Organochlorine Pesticides in Water	40CFR136A	TAL IRV
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL IRV
SM 2340B	Total Hardness (as CaCO ₃) by calculation	SM	TAL IRV

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

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

Laboratory References:

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

Lab Chronicle

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

TestAmerica Job ID: 440-117664-1

Client Sample ID: ArroyoSimi_20150811

Lab Sample ID: 440-117664-1

Date Collected: 08/11/15 11:25

Matrix: Water

Date Received: 08/11/15 16:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	525.2			1025 mL	1 mL	272461	08/11/15 17:38	AK	TAL IRV
Total/NA	Analysis	525.2		1	1025 mL	1 mL	272899	08/13/15 13:31	MF	TAL IRV
Total/NA	Prep	608			960 mL	2 mL	272614	08/12/15 07:15	AP	TAL IRV
Total/NA	Analysis	608		1	960 mL	2 mL	272934	08/13/15 19:10	KS	TAL IRV
Total/NA	Prep	608			960 mL	2 mL	272614	08/12/15 07:15	AP	TAL IRV
Total/NA	Analysis	608		1	960 mL	2 mL	272925	08/13/15 12:34	CN	TAL IRV
Total Recoverable	Analysis	SM 2340B		1			276304	08/26/15 19:40	DP	TAL IRV

Laboratory References:

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

QC Sample Results

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

TestAmerica Job ID: 440-117664-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-272461/1-A

Matrix: Water

Analysis Batch: 272899

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 272461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND		1.0	0.50	ug/L		08/11/15 13:45	08/13/15 10:36	1
Diazinon	ND		0.25	0.12	ug/L		08/11/15 13:45	08/13/15 10:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,3-Dimethyl-2-nitrobenzene	98		70 - 130	08/11/15 13:45	08/13/15 10:36	1
Perylene-d12	97		70 - 130	08/11/15 13:45	08/13/15 10:36	1
Triphenylphosphate	113		70 - 130	08/11/15 13:45	08/13/15 10:36	1

Lab Sample ID: LCS 440-272461/2-A

Matrix: Water

Analysis Batch: 272899

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 272461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chlorpyrifos	5.00	5.42		ug/L		108	70 - 130
Diazinon	5.00	3.79		ug/L		76	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	95		70 - 130
Perylene-d12	102		70 - 130
Triphenylphosphate	105		70 - 130

Lab Sample ID: LCSD 440-272461/3-A

Matrix: Water

Analysis Batch: 272899

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 272461

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Chlorpyrifos	5.00	5.57		ug/L		111	70 - 130	3	30
Diazinon	5.00	3.98		ug/L		80	70 - 130	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	94		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	107		70 - 130

Lab Sample ID: 440-117664-1 MS

Matrix: Water

Analysis Batch: 272899

Client Sample ID: ArroyoSimi_20150811

Prep Type: Total/NA

Prep Batch: 272461

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chlorpyrifos	ND		4.98	5.24	GR	ug/L		105	70 - 130
Diazinon	ND		4.98	4.95	GR	ug/L		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	97	GR	70 - 130
Perylene-d12	91		70 - 130
Triphenylphosphate	100		70 - 130

TestAmerica Irvine

QC Sample Results

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

TestAmerica Job ID: 440-117664-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-117664-1 MSD

Matrix: Water

Analysis Batch: 272899

Client Sample ID: ArroyoSimi_20150811

Prep Type: Total/NA

Prep Batch: 272461

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Chlorpyrifos	ND		4.88	4.95		ug/L		102	70 - 130	6	30
Diazinon	ND		4.88	4.85		ug/L		99	70 - 130	2	30
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
1,3-Dimethyl-2-nitrobenzene	97		70 - 130								
Perylene-d12	89		70 - 130								
Triphenylphosphate	104		70 - 130								

Method: 608 - Organochlorine Pesticides in Water

Lab Sample ID: MB 440-272614/1-A

Matrix: Water

Analysis Batch: 272934

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 272614

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlordane (technical)	ND		0.10	0.080	ug/L		08/12/15 07:15	08/13/15 17:19	1
Dieldrin	ND		0.0050	0.0020	ug/L		08/12/15 07:15	08/13/15 17:19	1
Toxaphene	ND		0.50	0.25	ug/L		08/12/15 07:15	08/13/15 17:19	1
4,4'-DDD	ND		0.0050	0.0040	ug/L		08/12/15 07:15	08/13/15 17:19	1
4,4'-DDE	ND		0.0050	0.0030	ug/L		08/12/15 07:15	08/13/15 17:19	1
4,4'-DDT	ND		0.010	0.0040	ug/L		08/12/15 07:15	08/13/15 17:19	1
MB MB									
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Tetrachloro-m-xylene	43		10 - 139			08/12/15 07:15	08/13/15 17:19	1	

Lab Sample ID: LCS 440-272614/2-A

Matrix: Water

Analysis Batch: 272934

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 272614

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Dieldrin	0.200	0.155		ug/L		77	36 - 146	
4,4'-DDD	0.200	0.154		ug/L		77	31 - 141	
4,4'-DDE	0.200	0.151		ug/L		76	30 - 145	
4,4'-DDT	0.200	0.166		ug/L		83	25 - 150	
LCS LCS								
Surrogate	%Recovery	Qualifier	Limits					
Tetrachloro-m-xylene	47		10 - 139					

Lab Sample ID: 440-117664-1 MS

Matrix: Water

Analysis Batch: 272934

Client Sample ID: ArroyoSimi_20150811

Prep Type: Total/NA

Prep Batch: 272614

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Dieldrin	ND		0.202	0.130		ug/L		64	50 - 120	
4,4'-DDD	ND		0.202	0.134		ug/L		66	50 - 125	
4,4'-DDE	ND		0.202	0.127		ug/L		63	45 - 125	
4,4'-DDT	ND		0.202	0.150		ug/L		74	50 - 125	

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QC Sample Results

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

TestAmerica Job ID: 440-117664-1

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	42		10 - 139

Lab Sample ID: 440-117664-1 MSD
Matrix: Water
Analysis Batch: 272934

Client Sample ID: ArroyoSimi_20150811
Prep Type: Total/NA
Prep Batch: 272614

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dieldrin	ND		0.202	0.117		ug/L		58	50 - 120	10	30
4,4'-DDD	ND		0.202	0.117		ug/L		58	50 - 125	13	30
4,4'-DDE	ND		0.202	0.114		ug/L		57	45 - 125	11	30
4,4'-DDT	ND		0.202	0.128		ug/L		63	50 - 125	16	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	48		10 - 139

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 440-272614/1-A
Matrix: Water
Analysis Batch: 272925

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272614

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.50	0.25	ug/L		08/12/15 07:15	08/13/15 11:34	1
Aroclor 1221	ND		0.50	0.25	ug/L		08/12/15 07:15	08/13/15 11:34	1
Aroclor 1232	ND		0.50	0.25	ug/L		08/12/15 07:15	08/13/15 11:34	1
Aroclor 1242	ND		0.50	0.25	ug/L		08/12/15 07:15	08/13/15 11:34	1
Aroclor 1248	ND		0.50	0.25	ug/L		08/12/15 07:15	08/13/15 11:34	1
Aroclor 1254	ND		0.50	0.25	ug/L		08/12/15 07:15	08/13/15 11:34	1
Aroclor 1260	ND		0.50	0.25	ug/L		08/12/15 07:15	08/13/15 11:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	57		29 - 115	08/12/15 07:15	08/13/15 11:34	1

Lab Sample ID: LCS 440-272614/5-A
Matrix: Water
Analysis Batch: 272925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272614

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	4.00	2.79		ug/L		70	50 - 115
Aroclor 1260	4.00	3.00		ug/L		75	10 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	83		29 - 115

Lab Sample ID: 440-117664-1 MS
Matrix: Water
Analysis Batch: 272925

Client Sample ID: ArroyoSimi_20150811
Prep Type: Total/NA
Prep Batch: 272614

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		3.77	2.22		ug/L		59	45 - 120
Aroclor 1260	ND		3.77	2.24		ug/L		59	55 - 125

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QC Sample Results

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

TestAmerica Job ID: 440-117664-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: 440-117664-1 MS
Matrix: Water
Analysis Batch: 272925

Client Sample ID: ArroyoSimi_20150811
Prep Type: Total/NA
Prep Batch: 272614

	MS	MS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>DCB Decachlorobiphenyl (Surr)</i>	65		29 - 115

Lab Sample ID: 440-117664-1 MSD
Matrix: Water
Analysis Batch: 272925

Client Sample ID: ArroyoSimi_20150811
Prep Type: Total/NA
Prep Batch: 272614

<i>Analyte</i>	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
Aroclor 1016	ND		3.77	2.24		ug/L		59	45 - 120	1	30	
Aroclor 1260	ND		3.77	2.26		ug/L		60	55 - 125	1	25	

	MSD	MSD	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>DCB Decachlorobiphenyl (Surr)</i>	65		29 - 115

QC Association Summary

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

TestAmerica Job ID: 440-117664-1

GC/MS Semi VOA

Prep Batch: 272461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-117664-1	ArroyoSimi_20150811	Total/NA	Water	525.2	
440-117664-1 MS	ArroyoSimi_20150811	Total/NA	Water	525.2	
440-117664-1 MSD	ArroyoSimi_20150811	Total/NA	Water	525.2	
LCS 440-272461/2-A	Lab Control Sample	Total/NA	Water	525.2	
LCS 440-272461/3-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MB 440-272461/1-A	Method Blank	Total/NA	Water	525.2	

Analysis Batch: 272899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-117664-1	ArroyoSimi_20150811	Total/NA	Water	525.2	272461
440-117664-1 MS	ArroyoSimi_20150811	Total/NA	Water	525.2	272461
440-117664-1 MSD	ArroyoSimi_20150811	Total/NA	Water	525.2	272461
LCS 440-272461/2-A	Lab Control Sample	Total/NA	Water	525.2	272461
LCS 440-272461/3-A	Lab Control Sample Dup	Total/NA	Water	525.2	272461
MB 440-272461/1-A	Method Blank	Total/NA	Water	525.2	272461

GC Semi VOA

Prep Batch: 272614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-117664-1	ArroyoSimi_20150811	Total/NA	Water	608	
440-117664-1 MS	ArroyoSimi_20150811	Total/NA	Water	608	
440-117664-1 MS	ArroyoSimi_20150811	Total/NA	Water	608	
440-117664-1 MSD	ArroyoSimi_20150811	Total/NA	Water	608	
440-117664-1 MSD	ArroyoSimi_20150811	Total/NA	Water	608	
LCS 440-272614/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 440-272614/5-A	Lab Control Sample	Total/NA	Water	608	
MB 440-272614/1-A	Method Blank	Total/NA	Water	608	

Analysis Batch: 272925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-117664-1	ArroyoSimi_20150811	Total/NA	Water	608	272614
440-117664-1 MS	ArroyoSimi_20150811	Total/NA	Water	608	272614
440-117664-1 MSD	ArroyoSimi_20150811	Total/NA	Water	608	272614
LCS 440-272614/5-A	Lab Control Sample	Total/NA	Water	608	272614
MB 440-272614/1-A	Method Blank	Total/NA	Water	608	272614

Analysis Batch: 272934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-117664-1	ArroyoSimi_20150811	Total/NA	Water	608	272614
440-117664-1 MS	ArroyoSimi_20150811	Total/NA	Water	608	272614
440-117664-1 MSD	ArroyoSimi_20150811	Total/NA	Water	608	272614
LCS 440-272614/2-A	Lab Control Sample	Total/NA	Water	608	272614
MB 440-272614/1-A	Method Blank	Total/NA	Water	608	272614

Metals

Analysis Batch: 276304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-117664-1	ArroyoSimi_20150811	Total Recoverable	Water	SM 2340B	

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QC Association Summary

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

TestAmerica Job ID: 440-117664-1

Metals (Continued)

Analysis Batch: 276304 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-117664-1 MS	ArroyoSimi_20150811	Total Recoverable	Water	SM 2340B	
440-117664-1 MSD	ArroyoSimi_20150811	Total Recoverable	Water	SM 2340B	

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

Definitions/Glossary

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

TestAmerica Job ID: 440-117664-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
GR	Internal Standard out of range

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

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

TestAmerica Job ID: 440-117664-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-16
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-16 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-16
Hawaii	State Program	9	N/A	01-29-16
Nevada	State Program	9	CA015312007A	07-31-16 *
New Mexico	State Program	6	N/A	01-29-16
Northern Mariana Islands	State Program	9	MP0002	01-29-16
Oregon	NELAP	10	4005	01-29-16
USDA	Federal		P330-09-00080	07-08-18

* Certification renewal pending - certification considered valid.

TestAmerica Irvine

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-117664-1

Login Number: 117664

List Number: 1

Creator: Wilson, Debby S

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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	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	