

REPORT

Second Quarter 2017  
Remediation Progress Report  
SFPP Norwalk Pump Station  
Norwalk, California

*Prepared for*

Kinder Morgan Energy Partners, L.P.

July 11, 2017



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# Signature Page

The material and data presented in this report were prepared consistent with current and generally accepted consulting principles and practices. This work was supervised by the following CH2M HILL Engineers, Inc. (CH2M) licensed professional.



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# Acronyms and Abbreviations

1,2-DCA	1,2-dichloroethane
Air Tech	Air Technology Laboratories
Asset	Asset Laboratories
ASTM	ASTM International
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CH2M	CH2M HILL Engineers, Inc.
EPA	U.S. Environmental Protection Agency
GWE	groundwater extraction
GWTS	groundwater treatment system
Kinder Morgan	Kinder Morgan Energy Partners, L.P.
LGAC	liquid-phase granular activated carbon
MTBE	methyl tertiary butyl ether
O&M	operations and maintenance
OWS	oil-water separator
RTO	regenerative thermal oxidizer
RWQCB	California Regional Water Quality Control Board, Los Angeles Region
scfm	standard cubic foot per minute
SFPP	SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P.
SVE	soil vapor extraction
TBA	tertiary butyl alcohol
TFE	total fluids extraction
TPH	total petroleum hydrocarbons
TPH-d	total petroleum hydrocarbons quantified as diesel
TPH-g	total petroleum hydrocarbons quantified as gasoline
TPH-o	total petroleum hydrocarbons quantified as oil
TPH-total	total petroleum hydrocarbons quantified as gasoline, diesel, and oil
VOC	volatile organic compound
WSB	West Side Barrier

# Introduction

CH2M HILL Engineers, Inc. (CH2M) prepared this report on behalf of SFPP, L.P. (SFPP), an operating partnership of Kinder Morgan Energy Partners, L.P. (Kinder Morgan), to summarize remediation activities performed at the former SFPP Norwalk Pump Station located within the Defense Fuel Support Point Norwalk, at 15306 Norwalk Boulevard, Norwalk, California (the site; Figure 1) during the second quarter 2017 reporting period.

This progress report is submitted pursuant to a request from the California Regional Water Quality Control Board, Los Angeles Region (RWQCB) in its letter, dated October 25, 2006 (RWQCB, 2006). Additional site background information can be found in the report titled, *Conceptual Site Model and Proposed Alternate Interim Remedy for Soil, Groundwater, and LNAPL* (CH2M, 2013), and in previously submitted semiannual groundwater monitoring reports.

This report summarizes the remediation systems present at the site and describes remediation activities for the period of April through June 2017 with documentation of the following tasks:

- Operations and maintenance (O&M) of remediation systems performed by SFPP field personnel
- Remediation system evaluation

The remediation activities performed from April through June 2017 and the progress achieved through those activities are summarized in the following sections.

# Remediation Systems

SFPP operates remediation systems consisting of soil vapor extraction (SVE), total fluids extraction (TFE; extraction of free product and/or groundwater using a top-loading pump), groundwater extraction (GWE; extraction of groundwater using a bottom-loading pump), and treatment of extracted soil vapors and groundwater to address the south-central and southeastern areas of the site. Biosparging is also employed in the south-central area to enhance natural attenuation of hydrocarbon constituents.

Operation of the West Side Barrier (WSB) GWE system (WSB system) for remediation of the western offsite area was discontinued in August 2008 based on the reduced lateral extent and low concentrations of volatile organic compounds (VOCs) west of the site.

The objectives of the remediation systems are to contain and control the migration of hydrocarbon constituents in groundwater and soil vapor, and to remove hydrocarbon mass from soil and groundwater. The remediation systems include the following wells:

- South-Central Area
  - 20 TFE wells
  - 24 onsite and 6 offsite SVE wells (most collocated with TFE wells)
  - 2 horizontal SVE wells
  - 1 horizontal biosparge well
- Southeastern Area (24-inch Block Valve Area)
  - 4 TFE wells (GMW-O-15, GMW-O-18, GMW-36, and GMW-SF-9)
  - 3 SVE wells (collocated with TFE wells)
  - 1 GWE well (GMW-SF-10)

A summary of remediation wells in the south-central, southeastern, and WSB areas is presented in Table 1. Table 1 includes well identifications, well construction details, well use, and operational status at the end of the second quarter 2017. The remediation system layout is shown on Figure 2. A brief description of each system is provided below.

From third quarter 2016 to second quarter 2017, the valves and additional connections that were used to supply product to the tanks at the site from the three Kinder Morgan pipelines (two 16-inch and one 24-inch pipelines), which were routed along the southern border of the site, were removed. Removing these additional valves and fittings to make the pipeline run through the site in a continuous manner will prevent spills that could have occurred at those connections.

## 2.1 Soil Vapor Extraction System

SVE is performed using a blower to remove soil vapors from the south-central and southeastern areas. The extracted vapors are conveyed to a knock-out tank that separates entrained moisture from the soil vapors. Accumulated moisture in the knock-out tank is treated by the main groundwater treatment system (GWTS) described below. The soil vapors are then treated in a regenerative thermal oxidizer (RTO) where VOCs are converted to carbon dioxide and water prior to being discharged to the atmosphere. Operation of the GWTS and SVE system is conducted in accordance with Permits to Operate (permit numbers G46188 A/N 578779 and G46187 A/N 578777) issued by the South Coast Air Quality Management District.

## 2.2 Groundwater Treatment System

The main GWTS handles free product and groundwater recovered from the south-central and southeastern parts of the site. Free product and groundwater recovered by pneumatically operated top-loading total fluid pumps and bottom-loading groundwater pumps are piped to an oil-water separator (OWS). Free product, if any, from the OWS is collected in a storage tank and recycled at an offsite location. Water from the OWS is treated using liquid-phase granular activated carbon (LGAC). Treated water is routed through an onsite 3,000-gallon equalization tank. Two fluidized bed bioreactors installed downstream of the equalization tank treat fuel oxygenates such as tertiary butyl alcohol (TBA) and methyl tertiary butyl ether (MTBE). The treated groundwater then passes through polishing LGAC units prior to discharge to a storm drain that leads to Coyote Creek. Discharge to Coyote Creek is performed in accordance with a National Pollutant Discharge Elimination System permit (No. CA0063509; Order R4-2016-0309).

## 2.3 Horizontal Biosparge System

In December 2015, SFPP completed installation of a horizontal biosparge system in the south-central area of the site. The biosparge well is constructed of 4-inch-diameter Schedule 80 polyvinyl chloride casing and screen completed to a vertical depth of approximately 45 feet below ground surface. The lateral distance of the screen interval is 600 feet, which is centered below the central portion of the south-central area hydrocarbon plume. Further details regarding the construction of the biosparge well are documented in the report titled, *Horizontal Biosparge Well and Soil Vapor Monitoring Probe Completion Report, SFPP Norwalk Pump Station, 15306 Norwalk Boulevard, Norwalk, California* (CH2M, 2015).

The air sparge compressor delivers ambient air to the biosparge well at a maximum design rate of approximately 500 standard cubic feet per minute (scfm). SFPP's SVE system has an interlock that ensures the biosparge system cannot operate unless the SVE system is operating. Operation of the SVE system reduces the potential for offgassing of VOCs during biosparge operations. Pilot testing of the biosparge system commenced in early January 2016 and continued through October 2016. Soil vapor data collected as part of the pilot testing have been submitted to the RWQCB and Restoration Advisory Board under separate covers. Preparation of a comprehensive evaluation report that incorporates soil vapor and groundwater data is currently in process. After the new RTO start up, the biosparge was restarted on June 27, 2017.

# Operations and Maintenance

During the second quarter 2017 reporting period, O&M of the remediation systems included the following tasks:

- Performed ongoing weekly maintenance on the GWTS.
- Removed, inspected, and repaired existing TFE/GWE pumps and associated discharge lines.
- Installed pumps and associated equipment necessary for TFE at select wells with measurable free product.
- Restarted the SVE system on June 6, 2017 (it had been offline since November 1, 2016 to replace the thermal oxidizer with a new state-of-the-art RTO).
- Restarted the biosparge system on June 27, 2017.

The remediation systems operated during the second quarter 2017 with the following exceptions:

- The SVE and biosparging systems have been offline since November 1, 2016, to facilitate removal of the old thermal oxidizer and installation of the new RTO. The SVE was restarted on June 6, 2017, and the biosparge was restarted on June 27, 2017.
- The GWTS was shut down from April 10 through April 21, 2017, to facilitate gauging and sampling activities for the first semiannual groundwater sampling event.
- The GWTS was shut down again on June 15, 2017, to change carbons in the LGAC polishing vessels.
- After restart of the SVE system, the SVE was shut down on June 8, 2017, to wire the sensaphone, the three-way valve for the vapor line between the dissolved air floatation unit and the RTO, and the biosparge air compressor to the RTO control panel. The system was restarted on the same day.
- The RTO was shut down from June 23 to June 27, 2017 to measure baseline VOC concentrations from the soil vapor probes around the biosparge system.

During this reporting period, and when the system was operating, GWTS inspections were performed on a weekly basis. For these inspections, volumes of extracted groundwater, hours of operation, and other system parameters were recorded during system operation.

During the second quarter 2017, the GWTS was operational approximately 89 percent of the time (100 percent of the time excluding planned shutdowns). The SVE system was operational approximately 80 percent of the time (97 percent of the time excluding planned shutdowns). The biosparge system operated 100 percent of the time from June 27, when it was restarted, to June 30, 2017. Table 2 presents the SVE system operations summary. Extracted vapor photoionization detector (PID) measurements at the end of the second quarter 2017 are summarized in Table 3. Extracted vapor analytical results for the second quarter 2017 are summarized in Table 4. The groundwater remediation system operation activities for the second quarter 2017 are summarized in Table 5. The extracted groundwater analytical results for the second quarter 2017 are summarized in Table 6. Table 7 presents the biosparge system operations summary. Historical (post-2007) gauging results of select TFE and SVE wells are provided in Table 8. Pre-2007 data can be found in previous semiannual groundwater monitoring reports.

Water samples from the GWTS influent were collected on April 7, May 4, and June 20, 2017, during the second quarter 2017. The water samples were delivered to Asset Laboratories (Asset) of Las Vegas,



Nevada, for analysis. Asset is certified by the California Department of Public Health Environmental Laboratory Accreditation Program.

Asset analyzed the water samples for the following:

- Total petroleum hydrocarbons (TPH) quantified as gasoline (TPH-g), TPH quantified as diesel (TPH-d), and TPH quantified as oil (TPH-o) (collectively referred to as TPH-total) using U.S. Environmental Protection Agency (EPA) Method 8015(M)
- VOCs using EPA Method 8260B

Vapor samples from the SVE influent were collected on June 7, 2017. The vapor samples were delivered to Air Technology Laboratories (Air Tech) of City of Industry, California, for analysis.

Air Tech analyzed the vapor samples for the following:

- Fixed gases (methane, carbon dioxide, oxygen, and argon) using ASTM International (ASTM) D1946
- VOCs using EPA Method TO-15
- Total VOCs using EPA Method TO-3

The laboratory analytical reports and chain-of-custody documents for these samples are included in Appendix A.

# Summary of Remediation Progress

Based on weekly monitoring of the influent vapor concentration, vapor extraction flow rate, and hours of operation, the total mass of VOCs removed by SVE was 6,359 pounds during the second quarter 2017. A significant increase in mass removal was observed during the end of June 2017 due to a higher influent concentration resulting from operation of the horizontal biosparge system. Since SVE implementation in September 1995, the cumulative mass of VOCs removed was 3,483,014 pounds (Table 2). The cumulative mass removed by SVE does not include the mass removed by naturally occurring in situ biodegradation.

A total of 800,613 gallons of groundwater was extracted during the second quarter 2017 (Table 5). No water was extracted from the WSB area during the second quarter 2017. Approximately 100.7 million gallons of groundwater have been extracted from the south-central, southeastern, and WSB areas since GWTS operations first began in 1996.

GWE was discontinued in the WSB region during the third quarter 2008 based on the reduced lateral extent and low concentrations of MTBE and 1,2-dichloroethane (1,2-DCA) west of the site. 1,2-DCA, MTBE, and TBA concentrations in the western area during the latest semiannual groundwater monitoring event (fourth quarter 2016) did not warrant restarting the WSB system.

No free product accumulated in the product holding tank during the second quarter 2017. Since 1995, a total of 14,426 gallons of product has been removed by TFE, vacuum truck, or manual bailing operations. The estimated mass removal (pounds) of hydrocarbons by the GWTS is shown in Table 5. Mass removal estimates between 1996 and 2005 are based on benzene, toluene, ethylbenzene, and total xylene (BTEX) and MTBE concentrations in the groundwater influent (TPH data were not available) and total volume of extracted groundwater. Mass removal estimates between 2006 and 2011 are based on groundwater influent concentrations of TPH-g and TPH quantified as fuel product, and the total volume of extracted groundwater. Mass removal estimates between 2012 and 2017 are based on groundwater influent TPH-total concentrations (TPH-total includes TPH-g, TPH-d, and TPH-o) and the total volume of extracted groundwater. Since GWE first began in 1996, hydrocarbon mass removed by the GWTS is estimated to be 18,168 pounds. During the second quarter 2017, the mass removal of hydrocarbons was estimated to be 73 pounds. Table 6 shows the extracted groundwater analytical results for the samples collected on April 7, May 4, and June 20, 2017. TPH, BTEX, and MTBE concentrations declined significantly in the first quarter 2017 but increased slightly during the second quarter 2017. However, the concentrations during the second quarter 2017 were still less than the concentrations reported in late 2015 and early 2016. This reduction in dissolved-phase hydrocarbon concentrations can be attributed to biosparge operations in the south-central area.

The biosparge system operated for 66 hours in the second quarter 2017 (Table 7). The biosparge system flow (air injection) rate ranged from 207 to 220 scfm during the latter part of the second quarter 2017.

## System Evaluation and Optimization

During the second quarter 2017, all offsite SVE well valves (except for GMW-O-23) in the south-central area have been fully open to ensure maximum vapor extraction from the offsite area. The SVE wells at the southeastern area have been turned off due to an air leak with the conveyance lines. Onsite wells with PID readings above 50 parts per million per volume of VOCs as hexane were open to ensure maximum vapor extraction from wells with high VOC concentrations.

The GWTS continued to operate during the second quarter 2017 for hydraulic control and product recovery in the south-central and southeastern areas. The GWTS was offline in early April 2017 to facilitate semiannual groundwater monitoring activities.

Gauging results from the semiannual monitoring event performed in the second quarter 2017 are provided in Table 8. Historical (post-2007) gauging data for all TFE and SVE wells are also provided in the table. Since the biosparge has been off since November 1, 2016, free product has come back in a few of the groundwater wells in the south-central area. These wells are GMW-24, and offsite wells GMW-O-11, GMW-O-12, and MW-O-2 in the south-central area. The product thickness in these wells ranged from 0.06 (MW-O-2) to 4.20 inches (GMW-O-12), which are still 2 to 100 times less than the historic highs in those wells. The substantial decline in measurable product in the south-central area, relative to the fourth quarter 2015 (pre-biosparge conditions) (SGI, 2016), is directly attributable to biosparge system operations that were performed in 2016. Biosparge system operation was restarted during the second quarter 2017 on June 27, 2017. The air flow will be increased in a step-wise fashion starting at a relatively low flow of 200 to 500 scfm, increasing approximately 100scfm per week.

Groundwater monitoring results from the second quarter 2017 continue to support the shutdown of GWE in the WSB region. 1,2-DCA, MTBE, and TBA concentrations in the western area will continue to be monitored during routine semiannual groundwater monitoring events; the WSB system will be restarted if necessary. The second semiannual 2017 groundwater monitoring event, which includes the WSB region, will be conducted during the fourth quarter 2017.

## Planned Third Quarter 2017 Activities

During the third quarter 2017, SFPP plans to continue to focus remedial efforts on the south-central and southeastern areas. The following maintenance and other activities are planned to be completed during the third quarter 2017:

- Continue SVE operation and ramp up of the horizontal biosparge system.
- Conduct two monthly soil vapor monitoring events of the soil vapor probes in the south-central area, and then move to quarterly vapor monitoring of those probes.
- Conduct the nitrogen oxides performance test of the new RTO system.
- Measure weekly VOC concentration as hexane at the influent and effluent of the RTO system.
- Collect monthly vapor samples at the influent and effluent of the RTO system to be analyzed by TO-15 (VOCs), TO-3 (total VOCs as hexane), and ASTM-D 1946 (fixed gases).
- Continue weekly maintenance and monitoring of the south-central and southeastern SVE and TFE/GWE treatment systems, and biosparge system.
- Repair the soil vapor conveyance lines for the southeastern SVE wells.
- Measure individual well vapor concentrations.
- Collect and analyze system influent vapor and groundwater samples.
- Perform as-needed carbon changeouts of the LGAC vessels.
- Remove, inspect, and repair existing TFE/GWE pumps and associated discharge lines.
- Install pumps and associated equipment necessary for TFE at select wells with measurable free product.
- Continue to remove free product from wells without TFE pumps using manual bailing methods.

The TFE, GWE, and SVE systems for the south-central and southeastern areas will continue to operate. Operation of the TFE system in the southeastern area will be monitored closely and adjustments will be made to improve fluid recovery. System inspections will continue on a weekly basis; system evaluation parameters will be collected as needed. The remediation activities and progress for the third quarter 2017 will be described in the Third Quarter 2017 Remediation Progress Report, to be submitted by October 15, 2017.

Pilot testing of the horizontal biosparge system in the south-central area was completed during the fourth quarter 2016. Preparation of a comprehensive evaluation report, which includes soil vapor and groundwater data collected between January and October 2016, is being prepared and will be submitted to the RWQCB under separate covers. A recommendation for system expansion will be included in the report. The slow ramp up of the horizontal biosparge system will continue during the third quarter. The horizontal biosparge system will then operate at ideal air flow to decrease product thickness in the south-central area.

# References

California Regional Water Quality Control Board, Los Angeles Region (RWQCB). 2006. Letter to Mr. Kola Olowu, Defense Energy Support Center, Los Angeles, and Mr. Michael Pitta, Kinder Morgan Energy Partners; Conditional Approval of Revised Remedial Action Plan and Second Addendum to Remedial Action Plan for the Defense Fuel Support Point Norwalk, 15306 Norwalk Boulevard, Norwalk (SLIC No. 0286A, DOD No. 16638). October 25.

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The Source Group, Inc. (SGI). 2016. *Second Semiannual 2015 Groundwater Monitoring and Sampling Report, Defense Fuel Support Point Norwalk, 15306 Norwalk Boulevard, Norwalk, California*. January 25.

Tables

**Table 1. Remediation Well Construction and Status**  
 SFPP Norwalk Pump Station, Norwalk, California

Remediation Area	Remediation Well ID	Installation Date	Top of Well Casing Elevation (feet msl)	Well Screen Interval (feet bgs)	Remediation Well Function	Well Operation Status at End of Second Quarter 2017	
						SVE/BS	TFE/GWE
South-Central	MW-SF-1	6/18/1990	78.93	25 - 40	SVE	ON	--
	MW-SF-2	6/18/1990	78.53	25 - 40	SVE; TFE	OFF	OFF
	MW-SF-3	6/18/1990	78.12	25 - 40	SVE; TFE	ON	ON
	MW-SF-4	6/19/1990	79.38	25 - 40	SVE	ON	--
	MW-SF-5	9/19/1990	79.74	23 - 38	SVE	OFF	--
	MW-SF-6	9/19/1990	76.80	25 - 40	SVE; TFE	ON	OFF
	MW-SF-9	6/15/1995	74.10	--	SVE	ON	--
	MW-SF-10	9/23/2003	76.53	10 - 30	SVE	OFF	--
	MW-SF-11	6/19/2007	78.56	20 - 40	SVE; TFE	OFF	OFF
	MW-SF-12	6/18/2007	78.07	20 - 40	SVE; TFE	ON	OFF
	MW-SF-13	6/19/2007	73.40	20 - 40	SVE; TFE	ON	OFF
	MW-SF-14	6/21/2007	78.16	20 - 40	SVE; TFE	OFF	OFF
	MW-SF-15	6/21/2007	78.27	20 - 40	SVE; TFE	ON	OFF
	MW-SF-16	6/20/2007	78.21	20 - 40	SVE; TFE	ON	OFF
	MW-SF-17	--	--	--	SVE	??	--
	GMW-9	7/8/1991	77.16	20 - 50	SVE; TFE	ON	ON
	GMW-10	7/8/1991	N/A	25 - 50	SVE; TFE	ON	OFF
	GMW-22	8/2/1991	77.24	25 - 60	SVE; TFE	ON	OFF
	GMW-24	8/5/1991	77.48	25 - 60	SVE; TFE	OFF	OFF
	GMW-25	1/10/1992	78.14	20 - 50	SVE; TFE	OFF	OFF
	GWR-3	1/10/1992	77.60	20 - 50	SVE; TFE	ON	OFF
	VEW-1	09/19/90	--	5 - 25	SVE	OFF	--
	VEW-2	09/19/90	--	5 - 25	SVE	OFF	--
	MW-O-1	1/22/1991	75.48	25 - 40	SVE; TFE	ON	OFF
	MW-O-2	1/23/1991	71.90	25 - 40	SVE; TFE	ON	OFF
	GMW-O-11	5/20/1992	74.17	20 - 50	SVE; TFE	ON	OFF
	GMW-O-12	5/21/1992	73.49	20 - 50	SVE	ON	--
	GMW-O-20	6/15/1995	73.32	--	SVE; TFE	ON	ON
	GMW-O-21	10/1/1997	71.43	26 - 46	TFE	--	OFF
	GMW-O-23	6/25/2007	73.63	20 - 40	SVE; TFE	OFF	ON
MW-18 (MID)	6/10/1991	75.67	50 - 60	SVE	ON	--	
HW-1	09/06/92	--	--	SVE	ON	--	
HW-2	09/06/92	--	--	SVE	ON	--	
BS-01	08/27/14	75.06	--	BIOSPARGE	ON	--	
Southeastern	GMW-O-15	4/19/1994	74.23	20 - 50	SVE; TFE	OFF	ON
	GMW-O-18	7/25/1994	74.36	21 - 40	SVE; TFE	OFF	ON
	GMW-36	4/11/1994	76.66	20 - 50	SVE; TFE	OFF	OFF
	GMW-SF-9	4/1/2003	73.05	37 - 46	TFE	--	ON
	GMW-SF-10	4/2/2003	75.77	37 - 46	TFE	--	--
West Side Barrier	BW-2	5/20/1996	73.57	27 - 47	GWE	--	OFF
	BW-3	5/17/1996	74.16	31 - 50	GWE	--	OFF
	BW-4	5/20/1996	74.61	28 - 47	GWE	--	OFF
	BW-5	5/23/1996	73.59	27 - 46	GWE	--	OFF
	BW-6	5/22/1996	73.48	28 - 47	GWE	--	OFF
	BW-7	5/22/1996	74.65	27 - 46	GWE	--	OFF
	BW-8	5/21/1996	75.08	27 - 46	GWE	--	OFF
	BW-9	5/21/1996	76.19	27 - 46	GWE	--	OFF

Notes:

-- = information not available or not applicable

BS = biosparge

feet bgs = feet below ground surface

feet msl = feet above mean sea level based on the National Geodetic Vertical Datum of 1929

GWE = groundwater extraction

SVE = soil vapor extraction

TFE = total fluids extraction

**Table 2. Vapor Remediation System Operation Summary**

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Influent PID Reading (ppmv as hexane)	System Flow (scfm)	Header Vacuum (in. H <sub>2</sub> O)	Mass Removed (pounds) <sup>a</sup>
1995 Totals	1,240		--	--	--	281,065
1996 Totals	7,208	5,968	--	--	--	516,717
1997 Totals	12,865	5,657	--	--	--	489,526
1998 Totals	17,877	5,012	--	--	--	223,055
1999 Totals	23,600	5,723	--	--	--	390,836
2000 Totals	29,690	6,090	--	--	--	359,092
2001 Totals	33,671	3,981	--	--	--	224,091
2002 Totals	36,358	2,687	--	--	--	79,363
2003 Totals	39,676	3,319	--	--	--	64,671
2004 Totals	44,193	4,517	--	--	--	120,240
2005 Totals	49,750	5,557	--	--	--	212,175
2006 Totals	52,735	2,985	--	--	--	17,263
2007 Totals <sup>3</sup>	58,319	2,058	--	--	--	7,378
2008 Totals	64,233	5,915	--	--	--	5,878
2009 Totals	68,858	4,625	--	--	--	9,387
2010 Totals	72,369	3,511	--	--	--	1,507
2011 Totals	77,489	5,120	--	--	--	14,629
2012 Totals	84,173	6,684	--	--	--	22,260
2013 Totals	90,414	6,241	--	--	--	90,880
2014 Totals	94,083	3,688	--	--	--	67,744
2015 Totals	98,408	4,325	--	--	--	122,706
2016 Totals	104,405	7,694	--	--	--	156,193
6/7/2017	104,426	21	574	2062	50	319
6/13/2017	104,568	142	810	1395	50	1,634
6/20/2017	104,735	167	856	1419	50	2,130
6/23/2017	104,807	72	856	1312	50	1,086
6/27/2017	104,810	3	550	1212	50	19
6/30/2017	104,875	65	1,092	1231	52	1,171
<b>Second Quarter 2017 Totals</b>	<b>104,875</b>	<b>470</b>	--	--	--	<b>6,359</b>
<b>Cumulative Totals</b>	<b>104,875</b>	--	--	--	--	<b>3,483,014</b>

Notes:

<sup>a</sup> The total mass removed is based on influent FID or PID readings, hours of operation, and flow rate.

-- = not applicable or not available

FID = flame ionization detector

in. H<sub>2</sub>O = inches of water

PID = photoionization detector

ppmv = parts per million by volume

scfm = standard cubic feet per minute

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)



**Table 3. Remediation Well Vapor Concentrations**

SFPP Norwalk Pump Station, Norwalk, California

Remediation Area	Remediation Well ID	Remediation Well Function	6/20/2017 (ppmv as Hexane) <sup>a</sup>
South-Central	MW-SF-1	SVE	168
	MW-SF-2	SVE; TFE	--
	MW-SF-3	SVE; TFE	478
	MW-SF-4	SVE	138
	MW-SF-5	SVE	42
	MW-SF-6	SVE; TFE	634
	MW-SF-9	SVE	116
	MW-SF-10	SVE	24
	MW-SF-11	SVE; TFE	--
	MW-SF-12	SVE; TFE	1,352
	MW-SF-13	SVE; TFE	154
	MW-SF-14	SVE; TFE	0
	MW-SF-15	SVE; TFE	382
	MW-SF-16	SVE; TFE	96
	MW-SF-17	SVE; TFE	--
	GMW-9	SVE; TFE	256
	GMW-10	SVE	990
	GMW-22	SVE; TFE	256
	GMW-24	SVE; TFE	--
	GMW-25	SVE; GWE	--
	GWR-3	SVE; GWE	1,806
	VEW-1	SVE	--
	VEW-2	SVE	--
	MW-O-1	SVE; TFE	168
	MW-O-2	SVE; TFE	200
	GMW-O-11	SVE; TFE	5,000
	GMW-O-12	SVE	222
	GMW-O-20	SVE; TFE	5,000
	GMW-O-23	SVE; TFE	20
	MW-18 (MID)	SVE	108
	HW-1	SVE	672
	HW-2	SVE	1,188
Southeastern	GMW-36	SVE; TFE	--
	GMW-O-15	SVE; TFE	--
	GMW-O-18	SVE; TFE	--

## Notes:

<sup>a</sup> Vapor readings measured in the field with an Eagle 2 photoionization detector (PID) calibrated using

-- = not applicable or not available

GWE = groundwater extraction

ppmv = parts per million by volume

SVE = soil vapor extraction

TFE = total fluids extraction

**Table 4. Extracted Vapor Analytical Results<sup>a</sup>**

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	ASTM D-1946			EPA TO-3		SCAQMD 25.1	EPA TO-15 (VOCs) <sup>b</sup>				
	Methane (%v)	Carbon Dioxide (%v)	Oxygen and Argon (%v)	TPH-g (ppmv)	TVOC (ppmv)	TGNMOC (ppmv)	Benzene (ppbv)	Ethylbenzene (ppbv)	Toluene (ppbv)	Xylenes (ppbv)	MTBE (ppbv)
8/3/2007	<0.5	<0.5	22.0	63	---	---	650	220	1,100	1,420	55
9/5/2007	<0.5	<0.5	22.0	9	---	---	32	48	140	320	18
10/2/2007	<0.5	<0.5	21.9	27	---	---	250	75	430	610	20
11/2/2007	<0.5	<0.5	22.1	5	---	---	40	10	74	95	7
2/1/2008	<0.5	<0.5	21.8	100	---	---	830	260	2,200	1,850	<50
3/4/2008	<0.5	<0.5	21.7	50	---	---	380	98	570	1,250	36
4/8/2008	<0.5	<0.5	22.2	69	---	---	290	110	480	1,040	41
5/23/2008	<0.5	<0.5	21.8	14	---	---	180	24	190	280	23
6/3/2008	<0.5	<0.5	21.7	30	---	---	380	42	400	330	70
7/2/2008	<0.5	<0.5	21.4	49	---	---	32	6	34	45	10
8/19/2008	<0.5	1.7	20.8	50	---	---	390	63	230	450	40
9/5/2008	<0.5	2.0	21.2	22	---	---	130	39	130	340	42
10/7/2008	<0.5	1.43	21.4	10	---	---	41	15	54	181	6.8
11/4/2008	<0.5	2.08	21.1	7.5	---	---	31	47	190	242	<2.0
3/6/2009	<0.5	<0.5	22.0	83	---	---	1,900	180	990	770	240
4/17/2009	<0.5	<0.5	22.2	3.1	---	---	140	8	37	68	26
5/29/2009	<0.5	1.08	21.0	130	---	---	1,700	640	3,700	3,100	100
8/18/2009	<0.5	0.78	21.7	28	---	---	380	37	290	310	33
8/25/2009	<0.5	0.87	20.6	37	---	---	500	44	320	293	20
9/18/2009	<0.5	0.37	21.6	11	---	---	75	11	39	107	3
10/29/2009	<0.5	1.80	18.2	77	---	---	350	45	250	440	4
11/25/2009	<0.5	<0.5	21.1	14	---	---	110	12	110	164	11
12/15/2009	<0.5	<0.5	21.7	7	---	---	28	3	20	47	<3.2
2/26/2010	<0.5	0.4	21.2	20	---	---	300	18	220	260	21
3/26/2010	<0.5	1.0	20.2	18	---	---	380	20	110	90	5
5/4/2010	<0.5	0.4	21.4	13	---	---	100	42	170	222	3
6/29/2010	<0.5	0.4	21.3	9	---	---	74	13	66	82	<5.0
8/3/2010	<0.5	0.6	20.4	29	---	---	210	13	64	85	9
8/31/2010	0.0039 <sup>c</sup>	<0.5	21.4	11	---	---	72	12	66	87	8
9/14/2010	<0.5	<0.5	21.6	6	---	---	63	15	57	84	<3.2
11/2/2010	--	--	--	11	---	---	140	<10	31	28	<10
11/17/2010	0.00075	0.4	22.0	--	---	---	--	--	--	--	--
12/28/2010	0.0052	0.27	22.0	16	---	---	160	37	230	324	4.5
1/14/2011	0.016	0.20	22.0	68	---	---	340	34	89	183	<10
2/8/2011	0.026	0.24	21.0	210	---	---	3,000	1,700	11,000	7,400	110
3/29/2011	0.013	0.13	20.0	5	---	---	170	15	18	41.5	<2.5
4/26/2011	0.0011	0.079	20.0	1.9	---	---	16	2.4	8.8	7.7	<1.2
5/17/2011	0.021	0.65	22.0	90	---	---	2,600	140	2,200	1,100	220
6/17/2011	0.001	0.20	22.0	3	---	---	59	8.1	31	56	<0.25
7/19/2011	0.0056	0.49	22.0	80	---	---	1,800	130	2,200	1,000	<31
8/16/2011	0.0026	0.31	22.0	140	---	---	3,000	600	4,000	2,330	490
9/20/2011	--	--	--	100	---	---	2,100	740.0	2,700	2,040	660
11/22/2011	0.070	0.70	20.0	11	---	---	150	12.0	67	35	<5.0
12/20/2011	0.020	0.34	22.0	0	---	---	110	<25	260	216	<25
1/10/2012	0.010	0.66	20.0	11	---	---	150	14	86	160	<12
2/28/2012	0.0067	0.90	20.0	27	---	---	140	42	140	224	<25
3/13/2012	0.0044	0.71	20.0	27	---	---	440	38	450	241	<25
4/27/2012	0.0290	0.22	21.0	39	---	---	540	42	630	299	<25
5/22/2012	0.0100	0.31	20.0	65	---	---	590	350	770	2,070	<12
6/19/2012	0.0028	0.41	21.0	17	---	---	130	26	150	162	<12
7/27/2012	0.0059	0.40	21.0	13	---	---	46	<5	33	78	<5
8/30/2012	0.0049	0.56	21.0	69	---	---	150	<25	66	194	<25
9/25/2012	0.0073	0.80	21.0	57	---	---	190	19	120	283	<2.5
10/30/2012	0.0099	0.96	21.0	50	---	---	380	<50	230	130	<50
12/11/2012	0.0074	0.84	21.0	53	---	---	130	17	110	173	<5.0
1/29/2013	0.0028	0.29	22.0	1.4	---	---	8.7	<1.2	9.4	9.6	<1.2
2/12/2013	0.0057	0.88	21.0	60	---	---	500	<50	440	400	<50
3/19/2013	0.0058	0.80	21.0	77	---	---	560	66	490	520	<40
4/16/2013	0.0079	0.74	21.0	53	---	---	430	29	240	193	<25
5/14/2013	0.017	1.6	19	280	---	---	1,700	190	1,800	840	<12
6/28/2013	0.0068	<0.010	21	22	---	---	190	<25	130	131	<25

**Table 4. Extracted Vapor Analytical Results<sup>a</sup>**  
 SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	ASTM D-1946			EPA TO-3		SCAQMD 25.1	EPA TO-15 (VOCs) <sup>b</sup>				
	Methane (%v)	Carbon Dioxide (%v)	Oxygen and Argon (%v)	TPH-g (ppmv)	TVOC (ppmv)	TGNMOC (ppmv)	Benzene (ppbv)	Ethylbenzene (ppbv)	Toluene (ppbv)	Xylenes (ppbv)	MTBE (ppbv)
SVE system down for repair from July 16, 2013, to September 17, 2013.											
9/20/2013	0.014	1	21	590	---	---	4,200	520	3,600	2,830	<40
10/15/2013	0.011	0.68	21	410	---	---	3,500	360	2,800	1,970	<20
11/12/2013	0.012	0.66	21	430	---	---	2,900	440	2,600	1,930	<15
12/10/2013	0.013	0.92	21	910	---	---	8,400	920	7,200	5,500	<50
1/17/2014	0.0077	0.57	21	350	---	---	6,600	6,800	8,200	23,300	3,000
2/11/2014	0.011	0.60	21	640	---	---	6,600	570	6,000	3,800	<100
3/21/2014	0.0050	0.40	21	390	---	---	4,500	290	4,000	1,930	<50
4/21/2014	0.011	0.65	21	700	---	---	6,900	370	6,900	3,400	<40
SVE system down for repair from April 29, 2014 to May 13, 2014.											
5/27/2014	0.011	0.56	21	530	---	---	6,600	570	8,900	3,820	<50
6/13/2014	0.0076	0.49	21	780	---	---	10,000	1,200	15,000	7,100	<80
SVE system down for repair and permit modification from July 1, 2014 to March 27, 2015.											
3/31/2015	0.090	1.3	20	1,400	---	1,300	12,000	1,000	11,000	7,400	<200
4/7/2015	0.014	0.56	21	---	---	710	8,200	8,200	610	3,260	<160
5/5/2015	---	---	---	---	---	760	6,100	1,100	9,600	7,200	<140
6/30/2015	0.0065	0.37	21	---	---	270	3,100	380	3,800	2,820	<160
7/14/2015	0.0094	0.62	21	---	---	650	7,000	950	7,900	6,100	<200
8/4/2015	0.0053	0.49	21	---	---	560	6,200	710	7,700	4,800	<0.097
8/17/2015 <sup>c</sup>	---	---	---	---	---	470	4,800	500	5,400	3,600	<0.099
8/17/2015 <sup>c</sup>	---	---	---	---	---	470	5,000	520	5,800	3,870	<0.100
8/17/2015 <sup>c</sup>	---	---	---	---	---	480	5,100	580	6,100	4,000	<0.097
8/17/2015 <sup>c</sup>	---	---	---	---	---	480	5,200	580	6,300	4,100	<0.099
9/1/2015 <sup>c</sup>	---	---	---	---	---	670	7,000	850	8,700	6,900	<0.097
9/1/2015 <sup>c</sup>	---	---	---	---	---	930	12,000	1,500	14,000	11,400	<0.140
9/1/2015 <sup>c</sup>	---	---	---	---	---	890	12,000	2,300	20,000	14,300	<0.140
10/6/2015	0.0067	0.43	21	---	---	960	14,000	3,100	25,000	15,900	<200
11/10/2015	0.0028	0.30	21	---	860	---	9,100	1,800	15,000	9,400	<97
12/10/2016	0.004	0.41	21	---	580	---	6,400	1,200	10,000	7,600	<120
1/4/2016 <sup>c</sup>	0.0059	0.27	22	---	750	---	9,600	2,400	20,000	13,500	<220
2/4/2016 <sup>c</sup>	0.0038	0.58	21	---	2,000	---	16,000	2,600	29,000	19,300	<610
3/3/2016 <sup>c</sup>	0.004	0.64	21	---	1,200	---	11,000	3,000	27,000	27,500	<130
4/5/2016	0.033	0.49	21	---	400	---	3,900	5,500	7,300	4,600	<63
5/13/2016	0.0034	0.50	21	---	290	---	2,200	300	4,300	810	<23
6/7/2016	0.0065	0.32	21	---	150	---	1,000	25 J	1,100	117 J	<36
7/7/2016	0.014	0.48	21	---	170	---	1,000	220	2,500	1,630	<51
8/2/2016	0.0047	0.54	21	---	260	---	1,900	720	5,000	7,400	<22
9/7/2016	0.0066	0.53	21	---	250	---	1,600	680	3,800	5,000	<21
10/13/2016	0.0096	0.67	21	---	250	---	2,700	680	3,800	5,200	<36
11/1/2016	0.0025	0.62	21	---	260	---	1,600	540	3,800	4,600	<40
6/7/2017	0.029	1.1	21	---	190	---	960	220	1,200	1,170	<42

SVE system was offline for installation of new RTO from November 1, 2016 to June 6, 2017.

Notes:

<sup>a</sup> Influent vapor samples were collected from the manifold conveying soil vapors extracted from the south-central and southeastern areas.

<sup>b</sup> Other detected VOCs are included in the laboratory analytical reports in Appendix A.

<sup>c</sup> Influent vapor samples were collected after dilution before entrance into the SVE combustion chamber.

%v = percent by volume

<0.5 = not detected at or above the laboratory reporting limit shown

ASTM = ASTM International (formerly American Society for Testing and Materials)

EPA = U.S. Environmental Protection Agency

J = Resulting analyte concentration is between the reporting limit and the method detection limit.

MTBE = methyl tertiary butyl ether

ppbv = parts per billion by volume

ppmv = parts per million by volume

SCAQMD = South Coast Air Quality Management District

TGNMOC = total gaseous non-methane organic carbon

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)

TVOC = total volatile organic compound

VOC = volatile organic compound

**Table 5. Groundwater Remediation System Operation Summary**

*SFPP Norwalk Pump Station, Norwalk, California*

System Inspection Date	Groundwater Removed from the South-Central and Southeastern Areas (gallons)	Groundwater Removed from the West Side Barrier Area (gallons)	Total Groundwater Removed (gallons)	Influent TPH-total (TPH-g, TPH-d, TPH-o) Concentration (µg/L)	Estimated Hydrocarbon Mass Removed from the South-Central, Southeastern, and West Side Barrier Areas (pounds) <sup>a</sup>	Product Recovery (gallons)
1996 Totals	1,802,103	0	1,802,103	--	273	4,995
1997 Totals	7,031,533	0	7,031,533	--		2,204
1998 Totals	4,064,700	0	4,064,700	--		856
1999 Totals	3,891,600	2,338,129	6,229,729	--	385	450
2000 Totals	2,290,580	2,454,971	4,745,551	--	295	230
2001 Totals	1,401,473	1,131,700	2,533,173	--	229	0
2002 Totals	1,452,229	2,931,167	4,383,396	--	110	0
2003 Totals	1,607,095	2,281,956	3,889,051	--	65	10
2004 Totals	1,695,361	3,854,470	5,549,831	--	229	0
2005 Totals	1,537,925	4,244,674	5,782,599	--	273	0
2006 Totals	1,699,567	5,089,615	6,789,182	--	684	83
2007 Totals	3,368,481	2,167,724	5,536,205	--		89
2008 Totals <sup>b</sup>	4,283,026	405,954	4,688,980	--	520	0
2009 Totals	2,309,627	0	2,309,627	--	105	0
2010 Totals <sup>c</sup>	3,342,227	2,292	3,344,519	--	363	0
2011 Totals	5,530,317	0	5,530,317	--	585	0
2012 Totals	7,368,318	0	7,368,318	--	699	0
2013 Totals	6,439,733	0	6,439,733	--	568	2
2014 Totals	3,410,427	0	3,410,427	--	2,236	2,335
2015 Totals	4,817,906	0	4,817,906	--	5,959	2,928
2016 Totals	2,428,279	0	2,428,279	--	4,506	242
First Quarter 2017 Totals	1,224,622	0	1,224,622	--	9.6	2
4/1/2017	13,755	0	13,755	1,200	0.1	0
4/2/2017	13,744	0	13,744	1,200	0.1	0
4/3/2017	13,952	0	13,952	1,200	0.1	0
4/4/2017	13,811	0	13,811	1,200	0.1	0
4/5/2017	9,092	0	9,092	1,200	0.1	0
4/6/2017	11,187	0	11,187	1,200	0.1	0
4/7/2017	11,184	0	11,184	2,100	0.2	0
4/8/2017	11,217	0	11,217	2,100	0.2	0
4/9/2017	11,091	0	11,091	2,100	0.2	0
4/10/2017	6,399	0	6,399	2,100	0.1	0
4/11/2017	0	0	0	2,100	0.0	0
4/12/2017	0	0	0	2,100	0.0	0
4/13/2017	0	0	0	2,100	0.0	0
4/14/2017	0	0	0	2,100	0.0	0
4/15/2017	0	0	0	2,100	0.0	0
4/16/2017	0	0	0	2,100	0.0	0
4/17/2017	0	0	0	2,100	0.0	0
4/18/2017	0	0	0	2,100	0.0	0
4/19/2017	0	0	0	2,100	0.0	0
4/20/2017	0	0	0	2,100	0.0	0
4/21/2017	4,872	0	4,872	2,100	0.1	0
4/22/2017	13,375	0	13,375	2,100	0.2	0

**Table 5. Groundwater Remediation System Operation Summary**

*SFPP Norwalk Pump Station, Norwalk, California*

System Inspection Date	Groundwater Removed from the South-Central and Southeastern Areas (gallons)	Groundwater Removed from the West Side Barrier Area (gallons)	Total Groundwater Removed (gallons)	Influent TPH-total (TPH-g, TPH-d, TPH-o) Concentration (µg/L)	Estimated Hydrocarbon Mass Removed from the South-Central, Southeastern, and West Side Barrier Areas (pounds) <sup>a</sup>	Product Recovery (gallons)
4/23/2017	14,389	0	14,389	2,100	0.3	0
4/24/2017	14,843	0	14,843	2,100	0.3	0
4/25/2017	14,668	0	14,668	2,100	0.3	0
4/26/2017	14,368	0	14,368	2,100	0.3	0
4/27/2017	13,649	0	13,649	2,100	0.2	0
4/28/2017	13,426	0	13,426	2,100	0.2	0
4/29/2017	4,812	0	4,812	2,100	0.1	0
4/30/2017	10,032	0	10,032	2,100	0.2	0
5/1/2017	10,057	0	10,057	2,100	0.2	0
5/2/2017	11,886	0	11,886	2,100	0.2	0
5/3/2017	10,783	0	10,783	2,100	0.2	0
5/4/2017	6,262	0	6,262	430	0.0	0
5/5/2017	8,891	0	8,891	430	0.0	0
5/6/2017	8,564	0	8,564	430	0.0	0
5/7/2017	8,490	0	8,490	430	0.0	0
5/8/2017	7,947	0	7,947	430	0.0	0
5/9/2017	8,364	0	8,364	430	0.0	0
5/10/2017	7,170	0	7,170	430	0.0	0
5/11/2017	8,408	0	8,408	430	0.0	0
5/12/2017	10,418	0	10,418	430	0.0	0
5/13/2017	10,255	0	10,255	430	0.0	0
5/14/2017	10,296	0	10,296	430	0.0	0
5/15/2017	11,753	0	11,753	430	0.0	0
5/16/2017	10,393	0	10,393	430	0.0	0
5/17/2017	10,546	0	10,546	430	0.0	0
5/18/2017	10,534	0	10,534	430	0.0	0
5/19/2017	10,267	0	10,267	430	0.0	0
5/20/2017	10,540	0	10,540	430	0.0	0
5/21/2017	10,139	0	10,139	430	0.0	0
5/22/2017	10,094	0	10,094	430	0.0	0
5/23/2017	9,738	0	9,738	430	0.0	0
5/24/2017	10,051	0	10,051	430	0.0	0
5/25/2017	9,914	0	9,914	430	0.0	0
5/26/2017	9,825	0	9,825	430	0.0	0
5/27/2017	10,582	0	10,582	430	0.0	0
5/28/2017	10,944	0	10,944	430	0.0	0
5/29/2017	11,016	0	11,016	430	0.0	0
5/30/2017	9,194	0	9,194	430	0.0	0
5/31/2017	9,194	0	9,194	430	0.0	0
6/1/2017	9,194	0	9,194	430	0.0	0

**Table 5. Groundwater Remediation System Operation Summary**

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Groundwater Removed from the South-Central and Southeastern Areas (gallons)	Groundwater Removed from the West Side Barrier Area (gallons)	Total Groundwater Removed (gallons)	Influent TPH-total (TPH-g, TPH-d, TPH-o) Concentration (µg/L)	Estimated Hydrocarbon Mass Removed from the South-Central, Southeastern, and West Side Barrier Areas (pounds) <sup>a</sup>	Product Recovery (gallons)
6/2/2017	9,194	0	9,194	430	0.0	0
6/3/2017	9,194	0	9,194	430	0.0	0
6/4/2017	9,194	0	9,194	430	0.0	0
6/5/2017	9,193	0	9,193	430	0.0	0
6/6/2017	10,607	0	10,607	430	0.0	0
6/7/2017	11,298	0	11,298	430	0.0	0
6/8/2017	9,308	0	9,308	430	0.0	0
6/9/2017	10,724	0	10,724	430	0.0	0
6/10/2017	10,646	0	10,646	430	0.0	0
6/11/2017	10,881	0	10,881	430	0.0	0
6/12/2017	9,653	0	9,653	430	0.0	0
6/13/2017	9,327	0	9,327	430	0.0	0
6/14/2017	6,707	0	6,707	430	0.0	0
6/15/2017	309	0	309	430	0.0	0
6/16/2017	3,470	0	3,470	430	0.0	0
6/17/2017	2,176	0	2,176	430	0.0	0
6/18/2017	2,176	0	2,176	430	0.0	0
6/19/2017	2,195	0	2,195	430	0.0	0
6/20/2017	148	0	148	68,000	0.1	0
6/21/2017	9,249	0	9,249	68,000	5.2	0
6/22/2017	5,907	0	5,907	68,000	3.3	0
6/23/2017	9,616	0	9,616	68,000	5.4	0
6/24/2017	13,615	0	13,615	68,000	7.7	0
6/25/2017	13,309	0	13,309	68,000	7.5	0
6/26/2017	12,177	0	12,177	68,000	6.9	0
6/27/2017	6,489	0	6,489	68,000	3.7	0
6/28/2017	16,916	0	16,916	68,000	9.6	0
6/29/2017	15,873	0	15,873	68,000	9.0	0
6/30/2017	15,487	0	15,487	68,000	8.8	0
<b>Second Quarter 2017 Totals</b>	<b>800,613</b>	<b>0</b>	<b>800,613</b>	--	<b>73</b>	<b>0</b>
<b>Cumulative Total</b>	<b>73,797,742</b>	<b>26,902,652</b>	<b>100,700,394</b>	--	<b>18,168</b>	<b>14,426</b>

Notes:

<sup>a</sup> Estimated hydrocarbon mass removed (pounds) between 1996 and 2005 is based on concentrations of dissolved BTEX and MTBE in the groundwater influent and volume of groundwater extracted. Estimated hydrocarbon mass removed (pounds) between 2006 and 2011 is based on concentrations of TPH-g and TPH-fp in the groundwater influent and volume of groundwater extracted. Estimated hydrocarbon mass removed (pounds) between 2012 and 2015 is based on concentrations of dissolved TPH-total in the groundwater influent and volume of extracted groundwater.

<sup>b</sup> Groundwater removal in the West Side Barrier area was discontinued in August 2008

<sup>c</sup> Groundwater extraction from West Side Barrier area wells BW-3 and BW-6 was resumed on May 14, 2010, to evaluate the efficacy of blending water with lower selenium concentrations from these wells with groundwater extracted from the south-central and southeastern areas. Groundwater removal from the West Side Barrier area was discontinued again on June 22, 2010.

-- = not applicable

µg/L = micrograms per liter

BTEX = benzene, toluene, ethylbenzene, and xylenes

MTBE = methyl tertiary butyl ether

TPH-d = total petroleum hydrocarbons quantified as diesel (C13-C22)

TPH-fp = total petroleum hydrocarbons quantified as fuel product (C7-C28)

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)

TPH-o = total petroleum hydrocarbons quantified as oil (C23-C36)

TPH-total = total petroleum hydrocarbons quantified as gasoline, diesel, and oil (C4-C36)

**Table 6. Extracted Groundwater Analytical Results<sup>a</sup>**

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) <sup>b</sup>									
	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	
3/6/1996	--	--	--	--	--	2,600	790	7,200	9,100	---	--	--	--	--	
7/23/1998	--	--	--	--	--	750	<10	360	300	---	--	--	--	--	
8/27/1998	--	--	--	--	--	1,000	71	530	800	---	--	--	--	--	
10/1/1998	--	--	--	--	--	1,200	<10	1,400	1,680	---	--	--	--	--	
11/19/1998	--	--	--	--	--	1,600	140	2,600	2,900	---	--	--	--	--	
12/17/1998	--	--	--	--	--	4,500	380	4,500	3,900	---	--	--	--	--	
1/28/1999	--	--	--	--	--	520	79	660	840	---	--	--	--	--	
3/25/1999	--	--	--	--	--	540	160	1,800	4,100	---	--	--	--	--	
4/2/1999	--	--	--	--	--	620	76	520	1,200	---	--	--	--	--	
4/15/1999	--	--	--	--	--	1,400	99	800	1,480	---	--	--	--	--	
5/6/1999	--	--	--	--	--	1,340	180	1,240	1,730	---	--	--	--	--	
6/3/1999	--	--	--	--	--	3,410	343	2,240	2,770	---	--	--	--	--	
8/5/1999	--	--	--	--	--	3,200	780	5,400	5,200	---	--	--	--	--	
9/23/1999	--	--	--	--	--	2,700	130	1,200	720	---	--	--	--	--	
9/30/1999	--	--	--	--	--	1,300	77	480	560	---	--	--	--	--	
10/13/1999	--	--	--	--	--	1,400	100	660	720	---	--	--	--	--	
11/4/1999	--	--	--	--	--	3,000	500	5,600	4,500	---	--	--	--	--	
12/9/1999	--	--	--	--	--	4,500	280	1,400	1,480	---	--	--	--	--	
1/13/2000	--	--	--	--	--	9,000	7,600	14,000	44,000	---	--	--	--	--	
2/11/2000	--	--	--	--	--	2,300	<100	1,200	1,240	3,100	--	--	--	--	
3/10/2000	--	--	--	--	--	380	20	110	430	740	--	--	--	--	
4/13/2000	--	--	--	--	--	1,300	550	450	920	970	--	--	--	--	
6/2/2000	--	--	--	--	--	840	56	240	980	920	--	--	--	--	
6/15/2000	--	--	--	--	--	1,600	82	900	990	2,700	--	--	--	--	
8/3/2000	--	--	--	--	--	1,900	410	3,500	4,400	2,700	--	--	--	--	
8/28/2000	--	--	--	--	--	620	33	200	380	1,800	--	--	--	--	
9/20/2000	--	--	--	--	--	460	<20	73	255	1,300	--	--	--	--	
10/25/2000	--	--	--	--	--	20	<20	<20	216	6,700	--	--	--	--	
11/15/2000	--	--	--	--	--	560	24	210	490	3,700	--	--	--	--	
3/22/2001	--	--	--	--	--	3,800	360	3,900	3,160	5,500	--	--	--	--	
4/30/2001	--	--	--	--	--	4,100	710	5,800	5,600	8,300	--	--	--	--	
5/23/2001	--	--	--	--	--	3,400	160	1,100	1,070	3,900	--	--	--	--	
6/22/2001	--	--	--	--	--	1,700	85	680	680	2,200	--	--	--	--	
7/16/2001	--	--	--	--	--	2,300	130	1,100	1,350	2,100	--	--	--	--	
9/5/2001	--	--	--	--	--	1,500	170	1,200	1,890	1,100	--	--	--	--	
1/23/2002	--	--	--	--	--	<0.5	<1	<1	<2	2	--	--	--	--	
2/28/2002	--	--	--	--	--	<0.5	<1	<1	<2	96	--	--	--	--	
3/25/2002	--	--	--	--	--	<0.5	<1	<1	<2	87	--	--	--	--	
5/1/2002	--	--	--	--	--	1,900	31	190	480	1,100	--	--	--	--	
5/17/2002	--	--	--	--	--	1,400	50	180	970	1,000	--	--	--	--	
6/4/2002	--	--	--	--	--	2,700	57	280	530	1,300	--	--	--	--	
7/18/2002	--	--	--	--	--	3,800	66	530	1,160	330	--	--	--	--	
8/8/2002	--	--	--	--	--	4,800	49	610	1,290	460	--	--	--	--	

**Table 6. Extracted Groundwater Analytical Results<sup>a</sup>**

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) <sup>b</sup>									
	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	
9/3/2002	--	--	--	--	--	260	<5	5	71	600	--	--	--	--	
10/18/2002	--	--	--	--	--	1,200	70	490	820	570	--	--	--	--	
11/26/2002	--	--	--	--	--	1,300	68	130	590	860	--	--	--	--	
12/27/2002	--	--	--	--	--	1	<1	<1	<2	58	--	--	--	--	
1/30/2003	--	--	--	--	--	<0.5	<1	<1	<2	37	--	--	--	--	
2/26/2003	--	--	--	--	--	4	<1	<1	4	140	--	--	--	--	
3/17/2003	--	--	--	--	--	2,800	23	170	480	570	--	--	--	--	
4/30/2003	--	--	--	--	--	3,700	350	2,200	4,600	490	--	--	--	--	
6/13/2003	--	--	--	--	--	1,200	17	120	510	740	--	--	--	--	
6/19/2003	--	--	--	--	--	680	<10	35	239	680	--	--	--	--	
7/3/2003	--	--	--	--	--	2,600	160	610	2,290	450	--	--	--	--	
7/25/2003	--	--	--	--	--	300	6	3	39	230	--	--	--	--	
8/20/2003	--	--	--	--	--	830	19	130	350	290	--	--	--	--	
9/11/2003	--	--	--	--	--	270	<10	<10	46	420	--	--	--	--	
10/16/2003	--	--	--	--	--	380	<10	<10	121	490	--	--	--	--	
11/17/2003	--	--	--	--	--	93	6	22	106	200	--	--	--	--	
12/19/2003	--	--	--	--	--	300	27	110	1,010	62	--	--	--	--	
1/30/2004	--	--	--	--	--	700	140	740	1,740	22	--	--	--	--	
2/17/2004	--	--	--	--	--	300	47	440	1,150	19	--	--	--	--	
3/8/2004	--	--	--	--	--	52	<5.0	10	149	23	--	--	--	--	
3/21/2004	--	--	--	--	--	420	11	29	318	120	--	--	--	--	
6/28/2004	--	--	--	--	--	740	26	46	337	81	--	--	--	--	
7/30/2004	--	--	--	--	--	660	18	68	280	87	--	--	--	--	
8/27/2004	--	--	--	--	--	1,500	47	140	530	77	--	--	--	--	
9/28/2004	--	--	--	--	--	400	10	32	252	64	--	--	--	--	
10/15/2004	--	--	--	--	--	950	31	130	316	64	--	--	--	--	
11/12/2004	--	--	--	--	--	2,100	1,500	390	15,800	3,000	--	--	--	--	
12/10/2004	--	--	--	--	--	700	320	1,100	3,900	110	--	--	--	--	
1/28/2005	--	--	--	--	--	460	140	520	2,260	610	--	--	--	--	
2/25/2005	--	--	--	--	--	5,700	200	650	1,560	1,300	--	--	--	--	
3/22/2005	--	--	--	--	--	<5	<10	<10	26	1,000	--	--	--	--	
4/21/2005	--	--	--	--	--	680	8	21	108	420	--	--	--	--	
5/20/2005	--	--	--	--	--	6	<5	9	50	<5	--	--	--	--	
6/28/2005	--	--	--	--	--	450	80	690	1,030	1,600	--	--	--	--	
7/27/2005	--	--	--	--	--	2,000	170	1,700	5,000	1,200	--	--	--	--	
8/31/2005	--	--	--	--	--	660	34	320	670	220	--	--	--	--	
9/28/2005	--	--	--	--	--	1,800	310	2,800	4,700	360	--	--	--	--	
10/26/2005	--	--	--	--	--	940	330	1,800	3,600	530	--	--	--	--	
11/30/2005	--	--	--	--	--	900	170	900	2,790	760	--	--	--	--	
12/20/2005	--	--	--	--	--	2,500	350	2,600	4,100	2,300	--	--	--	--	
7/11/2007	--	--	--	--	--	4,800	130	890	1,040	690	--	--	--	--	
8/7/2007	14,000	--	--	--	11,000	5,400	140	1,100	770	540	--	--	--	--	
9/25/2007	12,000	--	--	--	30,000	3,400	310	1,600	2,390	540	--	--	--	--	



**Table 6. Extracted Groundwater Analytical Results<sup>a</sup>**

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) <sup>b</sup>									
	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	
10/16/2007	8,900	--	--	--	8,400	3,400	94	520	660	390	--	--	--	--	
11/2/2007	44,000	--	--	--	6,500	3,200	130	860	1,160	570	--	--	--	--	
11/30/2007	6,000	--	--	--	5,200	1,800	48	170	490	450	--	--	--	--	
12/21/2007	7,200	--	--	--	4,200	2,100	41	170	430	750	--	--	--	--	
1/4/2008	4,300	--	--	--	7,200	3,300	49	300	540	620	--	--	--	--	
1/18/2008	11,000	--	--	--	2,200	3,600	140	650	850	620	--	--	--	--	
2/1/2008	8,700	--	--	--	5,700	3,600	100	440	930	560	--	--	--	--	
3/4/2008	7,200	--	--	--	4,900	3,900	120	510	770	620	--	--	--	--	
4/8/2008	8,100	--	--	--	10,000	2,800	96	280	580	640	--	--	--	--	
5/6/2008	5,300	--	--	--	2,800	2,900	76	190	328	430	--	--	--	--	
6/3/2008	8,400	--	--	--	6,800	3,700	110	450	480	320	--	--	--	--	
7/2/2008	9,200	--	--	--	4,300 <sup>c</sup>	4,500	75	620	650	400	--	--	--	--	
8/19/2008	4,000	--	--	--	6,600	2,600	57	76	215	450	--	--	--	--	
9/5/2008	160	--	--	--	<500	<12	<25	<25	<25	<25	--	--	--	--	
10/7/2008	<100	--	--	--	<500	0.36 J	<1.0	<1.0	1.59	1.7	--	--	--	--	
11/4/2008	12,000	--	--	--	660,000	2,500	140	220	760	160	--	--	--	--	
12/4/2008	1,300	--	--	--	1,500	600	8.2	28	73	130	--	--	--	--	
1/6/2009	1,500	--	--	--	980	560	23	41	110	320	--	--	--	--	
3/6/2009	2,500	--	--	--	1,500	1,100	33	51	114	65	--	--	--	--	
4/7/2009	3,100	--	--	--	6,900	1,100	36	230	207	210	--	--	--	--	
5/13/2009	690	--	--	--	1,500	120	3.2	14	60	24	--	--	--	--	
6/12/2009	150	--	--	--	<500	<0.50	<1.0	<1.0	0.71 J	44	--	--	--	--	
7/10/2009	4,500	--	--	--	560	1,500	41	68	175	150	--	--	--	--	
8/4/2009	2,000	--	--	--	1,000	1,200	16	18	64	100	--	--	--	--	
9/1/2009	4,800	--	--	--	3,500	380	45	25	328	5.4 J	--	--	--	--	
10/6/2009	3,900	--	--	--	4,600	3,200	21	15	35	82	--	--	--	--	
10/27/2009	1,000	--	--	--	<500	520	4	15	10	180	--	--	--	--	
11/3/2009	120	--	--	--	<500	2	0.55 J	0.61 J	3	40	--	--	--	--	
11/25/2009	5,700	--	--	--	4,000	3,100	26	13	48	88	--	--	--	--	
2/16/2010	8,000	--	--	--	5,900	4,700	110	1,300	800	1,800	--	--	--	--	
3/9/2010	7,000	--	--	--	5,900	6,600	110	460	550	410	--	--	--	--	
4/20/2010	10,000	--	--	--	11,000	6,000	44	230	174	130	--	--	--	--	
5/14/2010	8,500	--	--	--	2,100	3,600	67	380	400	210	--	--	--	--	
6/25/2010	4,600	--	--	--	2,600	2,200	61	540	380	170	--	--	--	--	
7/20/2010	21,000	--	--	--	21,000	3,400	370	3,000	2,550	2,300	--	--	--	--	
8/3/2010	3,400	--	--	--	1,500	1,400	17	140	161	390	--	--	--	--	
8/10/2010	5,800	--	--	--	3,400	2,600	40	190	169	140	--	--	--	--	
9/14/2010	9,400	--	--	--	10,000	4,900	170	1,100	1,340	380	--	--	--	--	
10/12/2010	5,700	--	--	--	1,000	2,200	43	140	138	120	--	--	--	--	
11/16/2010	1,100	--	--	--	1,600	290	4	15	78	84	--	--	--	--	
12/14/2010	7,100	--	--	--	3,200	2,600	76	200	315	340	--	--	--	--	
1/14/2011	7,400	--	--	--	3,500	3,700	56	110	220	280	--	--	--	--	
2/8/2011	5,600	--	--	--	3,500	2,400	43	110	190	420	--	--	--	--	

**Table 6. Extracted Groundwater Analytical Results<sup>a</sup>**

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) <sup>b</sup>									
	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	
3/25/2011	3,100	--	--	--	1,200	1,300	51	92	200	300	--	--	--	--	
4/26/2011	1,400	--	--	--	1,200	610	5.8	5.7	20	130	--	--	--	--	
5/17/2011	3,300	--	--	--	1,700	3,600	82	180	300	240	--	--	--	--	
6/21/2011	1,200	--	--	--	720	860	9.6	31	82	190	2,200	6.6	<0.07	<0.1	
7/27/2011	14,000	10,000	44J	--	-- <sup>d</sup>	2,800	150	490	2,100	350	2,800	27	<0.07	<0.1	
8/26/2011	7,400	--	--	--	57,000	1,400	120	480	1,300	270	1,600	16	<0.07	<0.1	
9/23/2011	6,400	--	--	--	2,800	2,800	83.0	160	340	300	1,300	22	<0.07	<0.1	
10/25/2011	6,000	--	--	--	2,300	3,000	52	93	200	200	970	20	<0.70	<1.0	
11/22/2011	5,900	--	--	--	2,000	3,600	62	140	240	300	2,900	26	<0.07	<0.1	
12/20/2011	780	--	--	--	2,000	330	8	14	43	160	1,000	18	<0.07	<0.1	
1/10/2012	5,300	--	--	--	1,900	3,400	36	70	170	200	960	26	<0.07	<0.1	
2/21/2012	4,900	--	--	--	<13	3,400	19	16	48	120	2,200	21	<0.07	<0.1	
3/13/2012	6,100	--	--	--	2,100	2,900	43	79	180	120	1,600	23	<0.07	<0.1	
4/27/2012	5,100	--	--	--	2,200	3,800	49	61	150	150	500	38	<0.13	<0.12	
5/22/2012	6,800	--	--	--	31,000	2,800	49	140	262	150	690	30	<0.13	<0.12	
6/19/2012	5,300	--	--	--	36,000	3,200	45	230	200	220	2,800	33	<0.13	<0.12	
7/20/2012	5,600	2,400	210	8,200	--	3,000	71	72	510	170	2,700	26	<0.13	<0.12	
8/21/2012	3,600	1,100	140	4,900	--	2,400	26	41	80	110	1,500	22	<0.13	<0.12	
9/25/2012	2,100	710	71	2,800	--	1,700	25	35	86	150	690	17	<1.0	<1.0	
10/30/2012	2,600	700	74	3,374	--	1,400	15	13	52	54	1,200	14	<0.061	<0.054	
11/30/2012	860	8,200	260	9,320	--	1,100	2.4	4.4	12	23	690	<0.038	<0.061	<0.054	
12/27/2012	6,200	820	86	7,106	--	2,000	39	76	130	120	1,300	20	<0.061	<0.054	
1/15/2013	3,400	14,000	400	17,800	--	800	12	25	130	43	1,200	8.7	<0.061	<0.054	
2/12/2013	9,900	3,100	150	13,150	--	2,100	110	440	820	110	330	22	<0.061	<0.054	
3/5/2013	3,954	970	80	5,004	--	1,400	21	23	87	63	1,200	15	<0.061	<0.054	
3/15/2013	--	--	--	--	--	1,400	25	49	98	74	570	14	<0.061	<0.054	
4/16/2013	1,100	1,300	270	2,670	--	370	6	19	56	73	530	17	<0.061	<0.054	
5/14/2013	4,300	830	99	5,229	--	2,000	52	98	181	61	270	22	<0.061	<0.054	
6/28/2013	2,900	870	150	3,920	--	1,100	18	58	76	92	500	11	<0.061	<0.054	
7/16/2013	3,600	1,000	130	4,730	--	870	19	47	140	100	600	14	<0.061	<0.054	
8/16/2013	3,800	5,900	530	10,230	--	1,400	13	32	85	77	550	27	<0.061	<0.054	
9/24/2013	5,800	12,000	550	18,350	--	990	53	400	630	78	440	20	<0.061	<0.054	
10/15/2013	3,300	650	120	4,070	--	1,400	11	37	150	43	250	15	<0.061	<0.054	
11/12/2013	5,600	3,500	190	9,290	--	570	99	230	660	89	550	20	<0.061	<0.054	
12/13/2013	12,500	14,000	400	26,900	--	560	170	690	1,500	52	220	17	<0.061	<0.054	
1/17/2014	5,900	980	130	7,010	--	4,200	13	18	61	89	810	40	<0.061	<0.054	
2/11/2014	12,000	63,000	2,500	77,500	--	640	130	560	1,990	45	290	12	<0.061	<0.054	
3/21/2014	42,000	77,000	2,000	121,000	--	3,700	440	3,300	3,900	100	360	17	<0.061	<0.054	
4/21/2014	100,000	30,000	880	130,000	--	6,000	1,300	9,800	9,000	<0.098	<1.0	12	<0.061	<0.054	
5/20/2014	33,000	15,000	470	48,000	--	1,400	570	2,700	5,400	30	<0.40	16	<0.061	<0.054	
6/13/2014	77,000	33,000	1,100	110,000	--	7,700	1,900	10,000	13,000	38	<0.40	12	<0.061	<0.054	
7/12/2014	28,000	82	<52	28,082	--	2,800	820	3,700	6,800	34	<0.40	18J	<25	<25	

The GWTS was down between July 29, 2014 and December 1, 2014 to facilitate processing of the modifications to SCAQMD Permit No. F14166 for the GWTS.

**Table 6. Extracted Groundwater Analytical Results<sup>a</sup>**

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) <sup>b</sup>									
	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	
1/15/2015	8,000	5,600	270	13,870	--	2,200	22	140	430	21	390	11	<0.12	<0.11	
2/20/2015	120,000	47,000	1,500	170,000	--	3,000	350	1,600	3,000	43	<0.80	17	<0.12	<0.11	
3/3/2015	65,000	480,000	15,000	560,000	--	6,600	1,700	9,300	12,000	670	<0.80	11	<0.12	<0.11	
4/7/2015	105,000	92,000	2,900	200,000	--	9,000	2,100	18,000	13,000	1,200	<0.80	8.7	<0.12	17	
5/19/2015	73,000	90,000	2,400	165,400	--	8,200	1,600	17,000	12,000	380	<0.60	25	<0.078	<0.078	
6/2/2015	78,000	89,000	3,100	170,100	--	3,200	530	3,700	7,100	1,100	<0.60	13	<0.078	8.3	
7/30/2015	31,000	16,000	570	47,570	--	3,100	720	5,100	6,200	820	<0.60	27	<0.078	6.2	
8/6/2015	30,000	17,000	570	37,570	--	2,600	500	3,100	6,200	700	<0.60	16	<0.078	6.4	
9/15/2015	50,000	79,000	2,700	129,000	--	3,200	1,800	6,500	14,000	820	<0.60	15	<0.078	7.7	
10/8/2015	51,000	55,000	1,800	107,800	--	5,700	1,400	11,000	11,000	680	<0.60	16	<0.078	6.2	
11/24/2015	45,000	74,000	2,800	121,800	--	3,400	1,100	7,000	7,800	<0.31	<1.5	16	<0.20	<0.20	
12/3/2015	40,000	120,000	4,000	164,000	--	4,800	1,100	7,700	8,300	580	<1.5	19	<0.20	5.9	
1/21/2016	88,000	2,500,000	97,000	2,685,000	--	4,200	1,700	10,000	14,000	380	<0.60	12	<0.078	<0.078	
2/2/2016	31,000	110,000	4,700	145,700	--	2,600	750	4,600	9,500	430	<0.60	8.6	<0.078	<0.078	
4/5/2016	32,000	31,000	1,100	64,100	--	1,500	450	2,200	12,000	390	<3.0	<0.17	<0.39	<0.39	
5/3/2016	2,600	20,000	680	23,280	--	990	18	83	260	6.0	100	7.1	<0.039	<0.039	
6/14/2016	1,900	4,400	280	6,580	--	290	21	110	400	8.6	<5.0	6.00	<1.0	<1.0	
The GWTS was down between June 24 and September 9, 2016, to facilitate installation of the new DAF/OWS.															
9/20/2016	32	230	130	390	--	<0.036	0.18 J	0.080 J	2.6	2.2	150	10	<0.039	<0.039	
10/21/2016	10,000	9,300	360	20,000	--	320	320	1,100	2,700	5.1	<0.30	5.3	<0.039	<0.039	
11/8/2016	1,100	1,500	130	2,800	--	2.5	<0.036	2.6	160	2.4	66	9.1	<0.039	<0.039	
12/27/2016	140	390	130	660	--	1.2	<0.042	<0.042	2.0 J	1.4	2200	8.7	<0.039	<0.039	
1/19/2017	190	340	120	640	--	6.9	0.24 J	0.15 J	<1.5	2.4	2300	8.1	<0.15	<0.12	
2/3/2017	390	490	170	1,000	--	4.2	0.89 J	3.5	30	3.5	1700	5.1	<0.15	<0.12	
3/3/2017	790	320	78	1,200	--	180	5	1.7 J	24	4.2	620	3.0	<0.15	<0.12	
4/7/2017	1,200	780	140	2,100	--	740	21	23	87	7.5	120	4.8	<0.15	<0.12	
5/4/2017	20	300	100	430	--	0.18 J	<0.036	0.12 J	<1.5	1.4	320	<0.017	<0.039	<0.039	
6/20/2017	11,000	54,000	3,000	68,000	--	1,400	100	400	2,300	15	<18	8.1 J	<1.5	<1.2	

Notes:

<sup>a</sup> Influent samples were collected from the manifold conveying groundwater extracted from the south-central and southeastern areas.

<sup>b</sup> Other detected VOCs are included in the laboratory analytical reports in Appendix A.

<sup>c</sup> TPH-fp result from extracted groundwater sample collected on July 10, 2008.

<sup>d</sup> The July 27, 2011, sample, and samples collected after July 20, 2012, were analyzed for TPH-g, TPH-d, and TPH-o.

-- = not analyzed

<500 = Not detected at or above the laboratory reporting limit (RL) shown

µg/L = micrograms per liter

DAF = dissolved air flotation

DIPE = di-isopropyl ether

ETBE = ethyl tertiary butyl ether

GWTS = groundwater treatment system

J = Analyte was detected above the laboratory method detection limit and below the laboratory RL

MTBE = methyl tertiary butyl ether

OWS = oil-water separator

SCAQMD = South Coast Air Quality Management District

**Table 6. Extracted Groundwater Analytical Results<sup>a</sup>**

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) <sup>b</sup>								
	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)

TAME = tertiary amyl methyl ether

TBA = tertiary butyl alcohol

TPH-d = total petroleum hydrocarbons quantified as diesel (C13-C22)

TPH-fp = total petroleum hydrocarbons quantified as fuel product (C7-C28)

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)

TPH-o = total petroleum hydrocarbons quantified as oil (C23-C36)

TPH-total = total petroleum hydrocarbons quantified as gasoline, diesel, and oil (C4-C36)

**Table 7. Biosparge System Operation Summary**  
*SFPP Norwalk Pump Station, Norwalk, California*

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Incremental Uptime (%)	System Flow <sup>a</sup> (scfm)	BS-01 Sparge Leg Pressure (psi)
1/6/2016	0			60	10
2/16/2016	899	899	91.9	500	13
2/23/2016	1,071	172	99.1	500	14
2/29/2016	1,192	121	85.1	500	13
3/1/2016	1,214	22	98.5	500	13
3/8/2016	1,381	167	99.9	500	14
3/10/2016	1,426	45	98.5	500	14
3/22/2016	1,432	6	2.0	240	7
3/31/2016	1,524	92	42.5	180	8
<b>First Quarter 2016 Totals</b>	1,524	1,524	74.7	--	--
4/5/2016	1,644	120	99.2	120	7
4/15/2016	1,645	1	0.4	120	8
4/19/2016	1,735	90	99.4	240	9
4/25/2016	1,856	121	84.6	120	8
4/26/2016	1,881	25	87.7	240	8
4/29/2016	1,955	74	100.0	240	7
5/10/2016	1,955	0	0.0	240	8
5/17/2016	2,123	168	99.8	240	6
5/19/2016	2,140	17	36.9	120	5
5/24/2016	2,254	114	94.4	360	6
5/31/2016	2,422	168	98.7	360	7
6/7/2016	2,591	169	100.0	420	7
6/14/2016	2,754	163	95.3	420	8
6/21/2016	2,906	152	92.7	420	8
6/24/2016	2,982	76	99.6	420	8
<b>Second Quarter 2016 Totals</b>	2,982	1,458	71.5	--	--

**Table 7. Biosparge System Operation Summary**  
*SFPP Norwalk Pump Station, Norwalk, California*

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Incremental Uptime (%)	System Flow <sup>a</sup> (scfm)	BS-01 Sparge Leg Pressure (psi)
7/1/2016	2,982	0	0.0	120	5
7/7/2016	3,121	139	97.9	250	8
7/12/2016	3,242	121	100.0	420	5
7/19/2016	3,410	168	97.1	420	8
7/26/2016	3,575	165	99.8	420	8
8/2/2016	3,744	169	99.6	425	8
8/11/2016	3,931	187	88.0	240	7
8/16/2016	3,961	30	24.7	220	8
8/24/2016	4,033	72	36.5	120	4
8/25/2016	4,053	20	89.9	220	8
8/26/2016	4,067	14	66.7	78	5
8/30/2016	4,157	90	96.8	300	9
9/6/2016	4,303	146	84.5	85	5
9/13/2016	4,440	137	81.7	400	8
9/20/2016	4,611	171	100.0	586	14
9/27/2016	4,775	164	100.0	559	13
<b>Third Quarter 2016 Totals</b>	4,775	1,793	78.7	--	--
10/7/2016	4,776	1	0.4	110	4
10/8/2016	4,797	21	98.7	170	6
10/11/2016	4,866	69	99.9	420	11
10/13/2016	4,916	50	99.9	563	15
10/18/2016	4,965	49	42.1	120	8
10/25/2016	5,133	168	100.0	585	14
11/1/2016	5,302	169	99.8	598	14
<b>Fourth Quarter 2016 Totals</b>	5,302	527	62.7	--	--
2016 Totals	5,302	5,302	--	--	--
6/27/2017	5,302	0	0.0	220	6
6/30/2017	5,368	66	22.0	207	7
<b>Cumulative Totals</b>	<b>5,302</b>	--	73.7	--	--

Notes:

<sup>a</sup> Estimated system flow based on header flowmeter

-- = not applicable or not available

psi = pounds per square inch

scfm = standard cubic feet per minute

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**  
*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-9	4/30/2007	74.44	26.71	---	---	47.73	Secor
	11/12/2007	74.44	27.32	27.04	0.28	47.34	Secor
	8/8/2008	74.44	28.01	27.96	0.05	46.47	Envent
	10/16/2008	74.44	28.36	28.35	0.01	46.09	Envent
	12/17/2008	74.44	27.61	---	---	46.83	Envent
	1/15/2009	74.44	28.91	---	---	45.53	Envent
	3/27/2009	74.44	29.04	---	---	45.40	Envent
	4/21/2009	74.44	28.16	---	---	46.28	Envent
	7/21/2009	74.44	28.31	---	---	46.13	Envent
	10/19/2009	74.44	NM	---	---	NC	Blaine Tech
	5/24/2010	74.44	30.47	---	---	43.97	Blaine Tech
	5/28/2010	74.44	30.35	---	---	44.09	Blaine Tech
	10/4/2010	74.44	30.30	---	---	44.14	Blaine Tech
	1/10/2011	74.44	32.02	---	---	42.42	Blaine Tech
	4/11/2011	74.44	25.41	---	---	49.03	Blaine Tech
	7/11/2011	74.44	NM	---	---	NC	
	10/10/2011	74.44	28.91	---	---	45.53	Blaine Tech
	4/16/2012	74.44	31.15	---	---	43.29	Blaine Tech
	7/9/2012	---	31.64	---	---	NC	Blaine Tech
	10/15/2012	77.16	31.82	---	---	45.34	Blaine Tech
	1/14/2013	77.16	31.88	---	---	45.28	Blaine Tech
	4/8/2013	77.16	31.83	---	---	45.33	Blaine Tech
	10/7/2013	77.16	35.30	31.25	4.05	45.02	Blaine Tech
	4/14/2014	77.16	37.66	31.65	6.01	44.19	Blaine Tech
	5/5/2014	77.16	37.81	31.76	6.05	44.07	Nieto & Sons
	5/12/2014	77.16	37.39	31.83	5.56	44.11	Nieto & Sons
	5/20/2014	77.16	37.70	33.85	3.85	42.46	Nieto & Sons
	5/27/2014	77.16	32.41	28.84	3.57	47.53	Nieto & Sons
	6/4/2014	77.16	33.20	---	---	43.96	Nieto & Sons
	6/10/2014	77.16	37.51	32.77	4.74	43.35	Nieto & Sons
	7/3/2014	77.16	39.26	32.59	6.67	43.10	Nieto & Sons
	7/8/2014	77.16	38.59	32.45	6.14	43.36	Blaine Tech
	7/18/2014	77.16	37.15	32.73	4.42	43.46	Blaine Tech
	7/24/2014	77.16	37.78	32.48	5.30	43.51	Blaine Tech
	8/1/2014	77.16	36.72	32.30	4.42	43.89	Blaine Tech
	8/8/2014	77.16	36.55	32.26	4.29	43.96	Blaine Tech
	8/13/2014	77.16	36.25	32.33	3.92	43.97	Blaine Tech
	8/19/2014	77.16	36.04	32.38	3.66	43.97	Blaine Tech
	8/29/2014	77.16	36.23	32.33	3.90	43.97	Blaine Tech
	9/5/2014	77.16	36.26	32.35	3.91	43.95	Blaine Tech
	9/11/2014	77.16	36.27	32.33	3.94	43.96	Blaine Tech
	9/18/2014	77.16	36.42	32.37	4.05	43.90	Blaine Tech
	9/26/2014	77.16	36.39	32.35	4.04	43.92	Blaine Tech
10/1/2014	77.16	36.11	32.42	3.69	43.93	Blaine Tech	
10/6/2014	77.16	35.99	32.42	3.57	43.95	Blaine Tech	
10/14/2014	77.16	36.24	32.34	3.90	43.96	Blaine Tech	
10/23/2014	77.16	36.32	32.35	3.97	43.94	Blaine Tech	
10/27/2014	77.16	36.04	32.42	3.62	43.94	Blaine Tech	
11/3/2014	77.16	36.40	32.35	4.05	43.92	Blaine Tech	
11/10/2014	77.16	36.32	32.41	3.91	43.89	Blaine Tech	
11/18/2014	77.16	36.28	32.43	3.85	43.88	Blaine Tech	
11/25/2014	77.16	36.21	32.49	3.72	43.85	Blaine Tech	
12/3/2014	77.16	36.18	32.43	3.75	43.90	Blaine Tech	
12/12/2014	77.16	36.58	32.74	3.84	43.58	Blaine Tech	
12/19/2014	77.16	37.05	32.76	4.29	43.46	Blaine Tech	
3/6/2015	77.16	39.40	33.13	6.27	42.65	Kinder Morgan	
4/20/2015	77.16	36.98	32.99	3.99	43.29	Blaine Tech	
10/20/2015	77.16	34.61	34.37	0.24	42.74	Kinder Morgan	
3/14/2016	77.16	36.10	---	---	41.06	Blaine Tech	
4/11/2016	77.16	36.20	---	---	40.96	Blaine Tech	
6/30/2016	77.16	31.02	---	---	46.14	Kinder Morgan	

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	8/22/2016	77.16	37.27	---	---	39.89	Kinder Morgan
	10/3/2016	77.16	38.02	---	---	39.14	Blaine Tech
	3/7/2017	77.16	35.13	---	---	42.03	CH2M
	4/17/2017	77.16	33.32	--	---	43.84	Blaine Tech
GMW-10	4/30/2007	74.67	25.90	---	---	48.77	Secor
	11/12/2007	74.67	25.02	25.82	0.83	50.33	Secor
	4/14/2008	74.67	25.38	25.44	0.06	49.34	Secor
	10/13/2008	74.67	24.16	---	---	50.51	Stantec
	4/20/2009	74.67	24.46	---	---	50.21	Blaine Tech
	10/19/2009	74.67	27.20	---	---	47.47	Blaine Tech
	5/24/2010	74.67	26.72	---	---	47.95	Blaine Tech
	5/28/2010	74.67	26.70	---	---	47.97	Blaine Tech
	10/4/2010	74.67	27.15	---	---	47.52	Blaine Tech
	4/11/2011	74.67	25.21	---	---	49.46	Blaine Tech
	10/10/2011	74.67	27.75	---	---	46.92	Blaine Tech
	4/27/2012	74.67	28.47	---	---	46.20	Blaine Tech
	7/9/2012	74.67	NM	---	---	NC	Blaine Tech
	10/15/2012	74.67	29.15	29.02	0.13	45.63	Blaine Tech
	4/8/2013	74.67	33.64	28.12	5.52	45.53	Blaine Tech
	9/26/2013	73.35	36.15	29.25	6.90	42.82	Blaine Tech
	10/7/2013	73.35	31.85	29.32	2.53	43.56	Blaine Tech
	4/14/2014	73.35	29.43	29.01	0.42	44.26	Blaine Tech
	8/19/2014	73.35	29.80	29.53	0.27	43.77	Blaine Tech
	8/29/2014	73.35	29.68	29.25	0.43	44.02	Blaine Tech
	9/26/2014	73.35	29.98	29.23	0.75	43.98	Blaine Tech
	10/1/2014	73.35	29.98	29.19	0.79	44.01	Blaine Tech
	10/6/2014	73.35	30.01	29.16	0.85	44.03	Blaine Tech
	10/14/2014	73.35	30.01	29.18	0.83	44.02	Blaine Tech
	10/23/2014	73.35	30.17	29.15	1.02	44.01	Blaine Tech
	10/27/2014	73.35	30.19	29.12	1.07	44.03	Blaine Tech
	11/3/2014	73.35	30.25	29.13	1.12	44.01	Blaine Tech
	11/10/2014	73.35	29.85	29.28	0.57	43.96	Blaine Tech
	11/18/2014	73.35	29.95	29.28	0.67	43.95	Blaine Tech
	11/25/2014	73.35	30.00	29.27	0.73	43.94	Blaine Tech
	12/3/2014	73.35	30.18	29.27	0.91	43.91	Blaine Tech
	12/12/2014	73.35	30.81	29.45	1.36	43.65	Blaine Tech
	12/19/2014	73.35	30.51	30.35	0.16	42.97	Blaine Tech
4/20/2015	73.35	34.99	28.42	6.57	43.71	Blaine Tech	
7/17/2015	73.35	36.10	29.41	6.69	42.70	Blaine Tech	
10/20/2015	73.35	32.96	31.02	1.94	41.97	Kinder Morgan	
3/16/2016	73.35	34.47	33.42	1.05	39.74	Kinder Morgan	
4/11/2016	73.35	33.70	32.10	1.60	40.95	Blaine Tech	
6/29/2016	73.35	33.02	---	---	40.33	Blaine Tech	
8/22/2016	73.35	33.82	32.93	0.89	40.26	Blaine Tech	
10/3/2016	73.35	35.10	33.65	1.45	39.43	Blaine Tech	
3/8/2017	73.35	32.75	---	---	40.60	CH2M	
04/17/17	73.35	31.15	--	---	42.20	Blaine Tech	
GMW-22	4/30/2007	74.17	25.79	---	---	48.38	Secor
	11/12/2007	74.17	26.45	25.91	0.54	48.16	Stantec
	8/12/2008	74.17	26.70	---	---	47.47	Envent
	10/31/2008	74.17	28.25	27.04	1.21	46.91	Envent
	11/4/2008	74.17	26.97	---	---	47.20	Envent
	12/17/2008	74.17	26.65	---	---	47.52	Envent
	1/15/2009	74.17	27.18	---	---	46.99	Envent
	3/27/2009	74.17	27.86	---	---	46.31	Envent
	4/21/2009	74.17	27.30	27.20	0.10	46.95	Envent
	7/21/2009	74.17	27.70	---	---	46.47	Envent
	10/19/2009	74.17	NM	---	---	NC	Blaine Tech
	11/6/2009	74.17	28.12	---	---	46.05	Kinder Morgan
	9/3/2010	74.17	28.36	25.10	3.26	48.47	Kinder Morgan
10/4/2010	74.17	27.65	---	---	46.52	Blaine Tech	



**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	4/11/2011	74.17	26.45	---	---	47.72	Blaine Tech
	10/10/2011	74.17	29.68	---	---	44.49	Blaine Tech
	4/16/2012	74.17	31.15	---	---	43.02	Blaine Tech
	7/9/2012	---	NM	---	---	NC	Blaine Tech
	10/15/2012	77.24	31.05	---	---	46.19	Blaine Tech
	4/8/2013	77.24	31.92	---	---	45.32	Blaine Tech
	10/7/2013	77.24	34.28	31.65	2.63	45.10	Blaine Tech
	4/14/2014	77.24	35.59	32.30	3.29	44.33	Blaine Tech
	5/6/2014	77.24	35.87	32.35	3.52	44.24	Nieto & Sons
	5/12/2014	77.24	35.76	32.28	3.48	44.32	Nieto & Sons
	5/20/2014	77.24	37.90	32.70	5.20	43.58	Nieto & Sons
	5/27/2014	77.24	36.34	32.71	3.63	43.86	Nieto & Sons
	6/4/2014	77.24	33.36	---	---	43.88	Nieto & Sons
	6/10/2014	77.24	36.74	32.82	3.92	43.69	Nieto & Sons
	7/3/2014	77.24	37.66	32.91	4.75	43.45	Nieto & Sons
	7/8/2014	77.24	36.70	32.79	3.91	43.73	Blaine Tech
	7/18/2014	77.24	36.68	32.77	3.91	43.75	Blaine Tech
	7/24/2014	77.24	36.79	32.62	4.17	43.85	Blaine Tech
	8/1/2014	77.24	35.82	32.44	3.38	44.17	Blaine Tech
	8/8/2014	77.24	35.72	32.44	3.28	44.19	Blaine Tech
	8/13/2014	77.24	35.68	32.45	3.23	44.19	Blaine Tech
	8/19/2014	77.24	35.64	32.45	3.19	44.20	Blaine Tech
	8/29/2014	77.24	35.65	32.44	3.21	44.21	Blaine Tech
	9/5/2014	77.24	35.73	32.46	3.27	44.18	Blaine Tech
	9/11/2014	77.24	35.78	32.47	3.31	44.16	Blaine Tech
	9/18/2014	77.24	35.85	32.49	3.36	44.13	Blaine Tech
	9/26/2014	77.24	35.85	32.46	3.39	44.15	Blaine Tech
	10/1/2014	77.24	35.76	32.45	3.31	44.18	Blaine Tech
	10/6/2014	77.24	35.72	32.44	3.28	44.19	Blaine Tech
	10/14/2014	77.24	35.75	32.42	3.33	44.20	Blaine Tech
	10/23/2014	77.24	35.84	32.43	3.41	44.18	Blaine Tech
	10/27/2014	77.24	35.74	32.41	3.33	44.21	Blaine Tech
	11/3/2014	77.24	35.89	32.45	3.44	44.15	Blaine Tech
	11/10/2014	77.24	35.94	32.45	3.49	44.14	Blaine Tech
	11/18/2014	77.24	35.97	32.48	3.49	44.11	Blaine Tech
	11/25/2014	77.24	35.97	32.51	3.46	44.09	Blaine Tech
	12/3/2014	77.24	35.84	32.45	3.39	44.16	Blaine Tech
	12/12/2014	77.24	36.44	32.65	3.79	43.89	Blaine Tech
	12/19/2014	77.24	36.80	34.71	2.09	42.14	Blaine Tech
	4/20/2015	77.24	36.64	32.84	3.80	43.70	Blaine Tech
	7/24/2015	77.24	39.80	33.70	6.10	42.41	Northstar
	10/20/2015	77.24	36.10	34.92	1.18	42.10	Kinder Morgan
	3/16/2016	77.24	39.73	37.61	2.12	39.24	Kinder Morgan
	4/11/2016	77.24	38.59	35.50	3.09	41.17	Blaine Tech
	6/30/2016	77.24	36.55	---	---	40.69	Blaine Tech
	10/3/2016	77.24	37.70	---	---	39.54	Blaine Tech
	4/17/2017	77.24	34.47	---	---	42.77	Blaine Tech
GMW-24	4/30/2007	74.04	27.07	---	---	46.97	Secor
	11/12/2007	74.04	27.50	27.46	0.04	46.57	Stantec
	8/12/2008	74.04	NM	---	---	NC	Envent
	8/19/2008	74.04	29.34	28.24	1.10	45.58	Envent
	10/17/2008	74.04	30.88	29.90	0.98	43.94	Envent
	10/21/2008	74.04	29.64	28.30	1.34	45.47	Envent
	12/18/2008	74.04	29.04	---	---	45.00	Envent
	1/15/2009	74.04	30.56	29.80	0.76	44.09	Envent
	3/20/2009	74.04	31.28	---	---	42.76	Envent
	3/27/2009	74.04	30.45	---	---	43.59	Envent
	4/21/2009	74.04	29.91	---	---	44.13	Envent
	7/21/2009	74.04	32.78	---	---	41.26	Envent
	10/19/2009	74.04	NM	---	---	NC	Blaine Tech
	2/4/2010	74.04	29.67	29.40	0.27	44.59	Kinder Morgan

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	6/22/2010	74.04	29.47	---	---	44.57	Blaine Tech
	9/3/2010	74.04	29.90	---	---	44.14	Kinder Morgan
	10/4/2010	74.04	29.50	---	---	44.54	Blaine Tech
	4/11/2011	74.04	28.21	---	---	45.83	Blaine Tech
	10/10/2011	74.04	28.78	---	---	45.26	Blaine Tech
	4/16/2012	74.04	30.49	30.31	0.18	43.69	Blaine Tech
	7/9/2012	---	NM	---	---	NC	Blaine Tech
	10/15/2012	77.48	31.34	---	---	46.14	Blaine Tech
	4/8/2013	77.48	NM	---	---	NC	Blaine Tech
	6/14/2013	77.48	33.35	32.40	0.95	44.89	Blaine Tech
	10/7/2013	77.48	35.42	31.61	3.81	45.11	Blaine Tech
	4/14/2014	77.48	37.74	32.01	5.73	44.32	Blaine Tech
	5/5/2014	77.48	37.81	32.09	5.72	44.25	Nieto & Sons
	5/12/2014	77.48	37.52	32.14	5.38	44.26	Nieto & Sons
	5/20/2014	77.48	37.39	32.21	5.18	44.23	Nieto & Sons
	5/27/2014	77.48	37.95	32.90	5.05	43.57	Nieto & Sons
	6/4/2014	77.48	37.00	32.70	4.30	43.92	Nieto & Sons
	6/10/2014	77.48	37.85	32.98	4.87	43.53	Nieto & Sons
	7/3/2014	77.48	39.60	33.04	6.56	43.13	Nieto & Sons
	7/8/2014	77.48	38.67	32.89	5.78	43.43	Blaine Tech
	7/18/2014	77.48	38.64	32.86	5.78	43.46	Blaine Tech
	7/24/2014	77.48	38.27	32.82	5.45	43.57	Blaine Tech
	8/1/2014	77.48	37.00	32.55	4.45	44.04	Blaine Tech
	8/8/2014	77.48	36.97	32.51	4.46	44.08	Blaine Tech
	8/13/2014	77.48	36.82	32.54	4.28	44.08	Blaine Tech
	8/19/2014	77.48	36.92	32.55	4.37	44.06	Blaine Tech
	8/29/2014	77.48	36.92	32.51	4.41	44.09	Blaine Tech
	9/5/2014	77.48	36.97	32.55	4.42	44.05	Blaine Tech
	9/11/2014	77.48	37.99	32.57	5.42	43.83	Blaine Tech
	9/18/2014	77.48	36.89	32.60	4.29	44.02	Blaine Tech
	9/26/2014	77.48	36.86	32.58	4.28	44.04	Blaine Tech
	10/1/2014	77.48	36.64	32.61	4.03	44.06	Blaine Tech
	10/6/2014	77.48	36.93	32.92	4.01	43.76	Blaine Tech
	10/14/2014	77.48	36.92	32.88	4.04	43.79	Blaine Tech
	10/23/2014	77.48	37.00	32.90	4.10	43.76	Blaine Tech
	10/27/2014	77.48	36.82	32.91	3.91	43.79	Blaine Tech
	11/3/2014	77.48	37.01	32.99	4.02	43.69	Blaine Tech
	11/10/2014	77.48	37.33	33.95	3.38	42.85	Blaine Tech
	11/18/2014	77.48	36.96	33.01	3.95	43.68	Blaine Tech
	11/25/2014	77.48	36.91	33.55	3.36	43.26	Blaine Tech
	12/3/2014	77.48	36.87	32.99	3.88	43.71	Blaine Tech
	12/12/2014	77.48	37.36	33.25	4.11	43.41	Blaine Tech
	12/19/2014	77.48	37.75	33.31	4.44	43.28	Blaine Tech
	3/10/2015	77.48	36.25	---	---	41.23	Kinder Morgan
	4/20/2015	77.48	36.29	33.82	2.47	43.17	Blaine Tech
	7/24/2015	77.48	39.80	33.70	6.10	42.56	Blaine Tech
	10/20/2015	77.48	35.44	---	---	42.04	Kinder Morgan
	3/16/2016	77.48	38.83	---	---	38.65	Kinder Morgan
	4/11/2016	77.48	37.10	---	---	40.38	Blaine Tech
	6/29/2016	77.48	38.20	---	---	39.28	Blaine Tech
	8/22/2016	77.48	38.40	---	---	39.08	Blaine Tech
	10/3/2016	77.48	38.70	---	---	39.44	Blaine Tech
	4/17/2017	77.48	35.64	35.09	0.55	42.28	Blaine Tech
GMW-25	4/30/2007	74.29	26.60	---	---	47.69	Secor
	11/12/2007	74.29	27.30	27.25	0.05	47.03	Stantec
	8/12/2008	74.29	27.81	---	---	46.48	Envent
	10/17/2008	74.29	28.26	---	---	46.03	Envent
	12/18/2008	74.29	29.01	---	---	45.28	Envent
	1/15/2009	74.29	28.62	---	---	45.67	Envent
	3/24/2009	74.29	28.79	---	---	45.50	Envent
	4/21/2009	74.29	28.35	---	---	45.94	Envent

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	7/21/2009	74.29	29.80	---	---	44.49	Envent
	10/19/2009	74.29	30.28	---	---	44.01	Blaine Tech
	6/22/2010	74.29	31.64	---	---	42.65	Blaine Tech
	10/4/2010	74.29	29.25	---	---	45.04	Blaine Tech
	4/11/2011	74.29	26.21	---	---	48.08	Blaine Tech
	10/10/2011	74.29	30.02	---	---	44.27	Blaine Tech
	4/16/2012	74.29	31.30	---	---	42.99	Blaine Tech
	7/9/2012	---	NM	---	---	NC	Blaine Tech
	10/15/2012	78.14	31.88	---	---	46.26	Blaine Tech
	4/8/2013	78.14	32.11	---	---	46.03	Blaine Tech
	10/7/2013	78.14	33.23	33.10	0.13	45.01	Blaine Tech
	4/14/2014	78.14	37.40	33.00	4.40	44.13	Blaine Tech
	5/5/2014	78.14	37.51	33.06	4.45	44.06	Nieto & Sons
	5/12/2014	78.14	34.97	33.73	1.24	44.12	Nieto & Sons
	5/20/2014	78.14	36.75	34.30	2.45	43.28	Nieto & Sons
	5/27/2014	78.14	34.64	34.44	0.20	43.65	Nieto & Sons
	6/4/2014	78.14	35.00	---	---	43.14	Nieto & Sons
	6/10/2014	78.14	36.67	34.18	2.49	43.39	Nieto & Sons
	7/3/2014	78.14	34.21	---	---	43.93	Nieto & Sons
	7/24/2014	78.14	34.29	---	---	43.85	Blaine Tech
	8/1/2014	78.14	35.02	33.99	1.03	43.91	Blaine Tech
	8/8/2014	78.14	34.54	34.06	0.48	43.97	Blaine Tech
	8/14/2014	78.14	34.48	34.06	0.42	43.98	Blaine Tech
	8/19/2014	78.14	34.51	34.07	0.44	43.97	Blaine Tech
	8/29/2014	78.14	34.65	33.96	0.69	44.02	Blaine Tech
	9/18/2014	78.14	35.21	34.01	1.20	43.85	Blaine Tech
	9/26/2014	78.14	34.87	34.06	0.81	43.89	Blaine Tech
	10/1/2014	78.14	34.92	33.98	0.94	43.94	Blaine Tech
	10/6/2014	78.14	34.93	33.99	0.94	43.93	Blaine Tech
	10/14/2014	78.14	35.10	33.91	1.19	43.96	Blaine Tech
	10/23/2014	78.14	35.34	33.91	1.43	43.90	Blaine Tech
	10/27/2014	78.14	34.78	33.95	0.83	44.00	Blaine Tech
	11/3/2014	78.14	34.92	33.98	0.94	43.94	Blaine Tech
	11/10/2014	78.14	35.12	34.02	1.10	43.87	Blaine Tech
	11/18/2014	78.14	34.90	34.11	0.79	43.85	Blaine Tech
	11/25/2014	78.14	35.07	34.07	1.00	43.84	Blaine Tech
	12/3/2014	78.14	35.10	33.98	1.12	43.90	Blaine Tech
	12/12/2014	78.14	35.22	34.30	0.92	43.63	Blaine Tech
	12/19/2014	78.14	35.05	34.50	0.55	43.51	Blaine Tech
	4/20/2015	78.14	35.19	34.47	0.72	43.50	Blaine Tech
	6/25/2015	78.14	36.35	35.40	0.95	42.52	Blaine Tech
	10/20/2015	78.14	35.40	35.38	0.02	42.76	Kinder Morgan
	3/16/2016	78.14	38.99	---	---	39.15	Kinder Morgan
	4/12/2016	78.14	37.15	---	---	40.99	Kinder Morgan
	6/29/2016	78.14	38.40	---	---	39.74	Blaine Tech
	8/22/2016	78.14	38.44	---	---	39.70	Blaine Tech
	10/3/2016	78.14	38.70	---	---	39.44	Blaine Tech
	4/17/2017	78.14	35.23	--	---	42.91	Blaine Tech
GMW-36	3/12/2007	74.53	24.29	---	---	50.24	Secor
	4/30/2007	74.53	24.40	---	---	50.13	Secor
	8/28/2007	74.53	24.31	---	---	50.22	Stantec
	11/12/2007	74.53	24.86	24.85	0.01	49.68	Stantec
	2/19/2008	74.53	25.50	---	---	49.03	Stantec
	4/14/2008	74.53	24.61	---	---	49.92	Stantec
	8/8/2008	74.53	26.20	26.14	0.06	48.38	Envent
	10/16/2008	74.77	26.11	26.09	0.02	48.68	Envent
	12/18/2008	74.53	28.70	28.65	0.05	45.87	Envent
	1/15/2009	74.53	27.73	27.45	0.28	47.02	Envent
	2/20/2009	74.53	26.39	26.35	0.04	48.17	Envent
	2/23/2009	74.53	26.13	25.80	0.33	48.66	Blaine Tech
	3/24/2009	74.53	29.83	---	---	44.70	Envent

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	4/20/2009	74.53	25.63	25.59	0.04	48.93	Blaine Tech
	7/17/2009	74.53	27.40	---	---	47.13	Envent
	7/20/2009	74.53	25.90	---	---	48.63	Blaine Tech
	7/21/2009	74.53	26.03	---	---	48.50	Envent
	7/22/2009	74.53	25.90	---	---	48.63	Blaine Tech
	10/19/2009	74.53	26.56	26.45	0.11	48.06	Blaine Tech
	2/4/2010	74.53	26.93	26.80	0.13	47.70	Kinder Morgan
	3/15/2010	74.53	26.80	---	---	47.73	Blaine Tech
	4/16/2010	74.53	26.90	---	---	47.63	Blaine Tech
	5/24/2010	74.53	25.96	25.90	0.06	48.62	Blaine Tech
	5/28/2010	74.53	25.94	25.88	0.06	48.64	Blaine Tech
	6/22/2010	74.53	25.94	25.91	0.03	48.61	Blaine Tech
	7/12/2010	74.53	NM	---	---	NC	
	8/12/2010	74.53	NM	---	---	NC	
	9/20/2010	74.53	NM	---	---	NC	
	10/4/2010	74.53	26.90	---	---	47.63	
	10/24/2010	74.53	26.90	---	---	47.63	Blaine Tech
	11/23/2010	74.53	27.35	27.10	0.25	47.38	Blaine Tech
	12/22/2010	74.53	28.35	26.84	1.51	47.39	Blaine Tech
	1/10/2011	74.53	29.10	27.70	1.40	46.55	Blaine Tech
	2/24/2011	74.53	NM	---	---	NC	Blaine Tech
	3/23/2011	74.53	NM	---	---	NC	Blaine Tech
	4/12/2011	74.53	26.98	25.05	1.93	49.09	Blaine Tech
	5/13/2011	74.53	NM	---	---	NC	Blaine Tech
	6/22/2011	74.53	NM	---	---	NC	
	7/11/2011	74.53	NM	---	---	NC	
	8/19/2011	74.53	NM	---	---	NC	
	9/22/2011	74.53	NM	---	---	NC	
	10/10/2011	74.53	25.96	---	---	48.57	Blaine Tech
	11/28/2011	74.53	NM	---	---	NC	
	12/2/2011	74.53	26.71	---	---	47.82	Kinder Morgan
	12/21/2011	74.53	28.17	---	---	46.36	Blaine Tech
	1/9/2012	74.53	27.26	---	---	47.27	Blaine Tech
	2/23/2012	74.53	27.85	---	---	46.68	Blaine Tech
	3/28/2012	74.53	NM	---	---	NC	Blaine Tech
	4/16/2012	74.53	27.34	---	---	47.19	Blaine Tech
	5/25/2012	74.53	NM	---	---	NC	Blaine Tech
	6/15/2012	---	33.27	---	---	NC	Blaine Tech
	7/9/2012	---	33.71	---	---	NC	Blaine Tech
	8/29/2012	---	NM	---	---	NC	Blaine Tech
	9/26/2012	---	NM	---	---	NC	Blaine Tech
	10/15/2012	76.66	32.11	---	---	44.55	Blaine Tech
	11/29/2012	76.66	33.93	31.68	2.25	44.53	Blaine Tech
	12/26/2012	76.66	34.86	30.36	4.50	45.40	Blaine Tech
	1/14/2013	76.66	34.12	30.42	3.70	45.50	Blaine Tech
	2/20/2013	76.66	NM	---	---	NC	Blaine Tech
	4/10/2013	76.66	32.42	29.75	2.67	46.38	Blaine Tech
	10/7/2013	76.66	34.65	30.72	3.93	45.15	Blaine Tech
	4/25/2014	76.66	34.71	31.12	3.59	44.82	Blaine Tech
	5/20/2014	76.66	34.95	31.50	3.45	44.47	Nieto & Sons
	5/27/2014	76.66	34.53	31.29	3.24	44.72	Nieto & Sons
	6/4/2014	76.66	34.93	31.50	3.43	44.47	Nieto & Sons
	8/13/2014	76.66	34.86	31.27	3.59	44.67	Blaine Tech
	8/19/2014	76.66	34.20	31.39	2.81	44.71	Blaine Tech
	8/29/2014	76.66	34.31	31.32	2.99	44.74	Blaine Tech
	9/5/2014	76.66	34.35	31.37	2.98	44.69	Blaine Tech
	9/11/2014	76.66	35.00	31.23	3.77	44.68	Blaine Tech
	9/18/2014	76.66	34.42	31.50	2.92	44.58	Blaine Tech
	9/26/2014	76.66	34.15	31.48	2.67	44.65	Blaine Tech
	10/1/2014	76.66	33.51	31.61	1.90	44.67	Blaine Tech
	10/6/2014	76.66	33.29	31.63	1.66	44.70	Blaine Tech

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/14/2014	76.66	33.48	31.55	1.93	44.72	Blaine Tech
	10/23/2014	76.66	33.64	31.57	2.07	44.68	Blaine Tech
	10/27/2014	76.66	33.02	31.79	1.23	44.62	Blaine Tech
	11/3/2014	76.66	33.75	31.57	2.18	44.65	Blaine Tech
	11/18/2014	76.66	33.17	31.75	1.42	44.63	Blaine Tech
	11/25/2014	76.66	33.13	31.86	1.27	44.55	Blaine Tech
	12/3/2014	76.66	32.93	31.75	1.18	44.67	Blaine Tech
	4/20/2015	76.66	33.64	32.20	1.44	44.17	Blaine Tech
	10/21/2015	76.66	33.55	33.16	0.39	43.42	Blaine Tech
	4/12/2016	76.66	34.30	34.03	0.27	42.58	Kinder Morgan
	10/3/2016	76.66	35.05	34.65	0.40	41.93	Blaine Tech
	3/9/2017	76.66	33.45	---	---	43.21	CH2M
	4/17/2017	76.66	32.96	---	---	43.70	Blaine Tech
GMW-O-11	4/30/2007	74.17	23.91	23.90	0.01	50.27	Secor
	11/12/2007	74.17	24.40	---	---	49.77	Stantec
	8/15/2008	74.17	29.30	---	---	44.87	Envent
	10/17/2008	74.17	24.45	---	---	49.72	Envent
	12/19/2008	74.17	24.85	---	---	49.32	Envent
	1/15/2009	74.17	26.87	24.38	2.49	49.29	Envent
	2/24/2009	74.17	24.31	24.21	0.10	49.94	Envent
	3/27/2009	74.17	31.08	---	---	43.09	Envent
	4/21/2009	74.17	25.36	25.34	0.02	48.83	Envent
	7/21/2009	74.17	26.18	---	---	47.99	Envent
	10/19/2009	74.17	NM	---	---	NC	Blaine Tech
	11/6/2009	74.17	26.33	26.18	0.15	47.96	Kinder Morgan
	10/4/2010	74.17	30.00	---	---	44.17	Blaine Tech
	4/13/2011	74.17	24.19	---	---	49.98	Blaine Tech
	10/10/2011	74.17	24.38	---	---	49.79	Blaine Tech
	4/16/2012	74.17	NM	---	---	NC	Blaine Tech
	7/9/2012	74.17	NM	---	---	NC	Blaine Tech
	10/15/2012	74.17	28.12	---	---	46.05	Blaine Tech
	4/8/2013	74.17	NM	---	---	NC	Blaine Tech
	9/24/2013	74.17	31.25	28.15	3.10	45.40	Blaine Tech
	10/7/2013	74.17	31.19	27.69	3.50	45.78	Blaine Tech
	4/25/2014	74.17	28.96	28.62	0.34	45.48	Blaine Tech
	9/5/2014	74.17	31.13	27.89	3.24	45.63	Blaine Tech
	9/11/2014	74.17	31.12	27.85	3.27	45.67	Blaine Tech
	9/18/2014	74.17	31.22	27.85	3.37	45.65	Blaine Tech
	9/26/2014	74.17	31.34	27.91	3.43	45.57	Blaine Tech
	10/1/2014	74.17	31.19	27.84	3.35	45.66	Blaine Tech
	10/6/2014	74.17	32.19	27.84	4.35	45.46	Blaine Tech
	10/14/2014	74.17	31.18	28.85	2.33	44.85	Blaine Tech
	10/23/2014	74.17	31.34	27.85	3.49	45.62	Blaine Tech
	10/27/2014	74.17	31.28	28.89	2.39	44.80	Blaine Tech
	11/3/2014	74.17	32.34	27.83	4.51	45.44	Blaine Tech
	11/10/2014	74.17	31.46	27.97	3.49	45.50	Blaine Tech
11/18/2014	74.17	31.41	27.88	3.53	45.58	Blaine Tech	
11/25/2014	74.17	31.48	27.87	3.61	45.58	Blaine Tech	
12/3/2014	74.17	33.34	29.95	3.39	43.54	Blaine Tech	
12/12/2014	74.17	33.25	29.08	4.17	44.26	Blaine Tech	
12/19/2014	74.17	32.52	28.09	4.43	45.19	Blaine Tech	
4/22/2015	74.17	31.54	28.10	3.44	45.38	Blaine Tech	
10/22/2015	74.17	33.08	29.23	3.85	44.17	Kinder Morgan	
3/16/2016	74.17	33.39	33.16	0.23	40.96	Kinder Morgan	
4/12/2016	74.17	33.33	33.12	0.21	41.01	Kinder Morgan	
6/30/2016	74.17	31.50	---	---	42.67	Kinder Morgan	
8/22/2016	74.17	32.75	32.74	0.01	41.43	Kinder Morgan	
10/3/2016	74.17	32.72	32.71	0.01	41.46	Kinder Morgan	
3/24/2017	74.17	31.50	30.45	1.05	43.51	CH2M	
4/17/2017	74.17	30.12	29.96	0.16	44.18	Blaine Tech	
GMW-O-12	4/30/2007	73.49	22.81	---	---	50.68	Secor

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	11/12/2007	73.49	23.13	---	---	50.36	Stantec
	4/14/2008	73.49	23.36	---	---	50.13	Stantec
	10/13/2008	73.49	24.20	---	---	49.29	Stantec
	4/20/2009	73.49	24.21	---	---	49.28	Blaine Tech
	10/19/2009	73.49	25.08	---	---	48.41	Blaine Tech
	5/24/2010	73.49	24.80	---	---	48.69	Blaine Tech
	5/28/2010	73.49	24.74	---	---	48.75	Blaine Tech
	10/4/2010	73.49	25.31	25.20	0.11	48.27	Blaine Tech
	1/10/2011	73.49	26.42	26.32	0.10	47.15	Blaine Tech
	4/11/2011	73.49	24.04	---	---	49.45	Blaine Tech
	7/11/2011	73.49	NM	---	---	NC	
	10/10/2011	73.49	24.68	---	---	48.81	Blaine Tech
	1/9/2012	73.49	25.12	---	---	48.37	Blaine Tech
	4/16/2012	73.49	25.40	---	---	48.09	Blaine Tech
	7/9/2012	73.49	26.96	---	---	46.53	Blaine Tech
	10/15/2012	73.49	25.48	25.44	0.04	48.04	Blaine Tech
	1/14/2013	73.49	25.62	25.58	0.04	47.90	Blaine Tech
	4/8/2013	73.49	26.60	26.51	0.09	46.96	Blaine Tech
	9/24/2013	73.49	27.90	27.74	0.16	45.72	Blaine Tech
	10/7/2013	73.49	27.34	27.28	0.06	46.20	Blaine Tech
	4/14/2014	73.49	30.34	26.80	3.54	45.96	Blaine Tech
	5/6/2014	73.49	30.93	26.74	4.19	45.89	Nieto & Sons
	5/12/2014	73.49	30.81	26.82	3.99	45.85	Nieto & Sons
	5/20/2014	73.49	31.78	27.32	4.46	45.26	Nieto & Sons
	5/27/2014	73.49	33.04	26.78	6.26	45.43	Nieto & Sons
	6/4/2014	73.49	33.00	27.75	5.25	44.66	Nieto & Sons
	6/10/2014	73.49	34.53	26.81	7.72	45.10	Nieto & Sons
	7/3/2014	73.49	34.27	26.94	7.33	45.05	Blaine Tech
	7/8/2014	73.49	33.87	26.87	7.00	45.19	Blaine Tech
	7/18/2014	73.49	33.36	27.07	6.29	45.13	Blaine Tech
	7/24/2014	73.49	33.00	26.98	6.02	45.28	Blaine Tech
	8/1/2014	73.49	31.80	26.83	4.97	45.64	Blaine Tech
	8/8/2014	73.49	31.26	26.91	4.35	45.69	Blaine Tech
	8/13/2014	73.49	31.18	26.88	4.30	45.73	Blaine Tech
	8/19/2014	73.49	31.01	26.86	4.15	45.78	Blaine Tech
	8/29/2014	73.49	31.03	26.89	4.14	45.75	Blaine Tech
	9/5/2014	73.49	31.19	26.88	4.31	45.73	Blaine Tech
	9/18/2014	73.49	31.30	26.82	4.48	45.75	Blaine Tech
	9/26/2014	73.49	31.33	26.89	4.44	45.69	Blaine Tech
	10/1/2014	73.49	31.21	26.85	4.36	45.75	Blaine Tech
	10/6/2014	73.49	31.20	29.84	1.36	43.37	Blaine Tech
	10/14/2014	73.49	31.14	26.86	4.28	45.75	Blaine Tech
	10/23/2014	73.49	31.30	26.85	4.45	45.73	Blaine Tech
	10/27/2014	73.49	31.28	26.90	4.38	45.69	Blaine Tech
	11/3/2014	73.49	32.30	26.84	5.46	45.53	Blaine Tech
	11/10/2014	73.49	31.45	26.91	4.54	45.65	Blaine Tech
	11/18/2014	73.49	32.34	26.90	5.44	45.47	Blaine Tech
	11/25/2014	73.49	31.57	27.87	3.70	44.86	Blaine Tech
	12/3/2014	73.49	33.87	28.81	5.06	43.64	Blaine Tech
	12/19/2014	73.49	32.78	26.97	5.81	45.33	Blaine Tech
	4/20/2015	73.49	33.35	26.91	6.44	45.26	Blaine Tech
	4/22/2015	73.49	33.35	26.91	6.44	45.26	Blaine Tech
	5/21/2015	73.49	34.31	27.35	6.96	44.71	Northstar
	5/29/2015	73.49	34.15	27.24	6.91	44.83	Northstar
	6/2/2015	73.49	34.00	27.27	6.73	44.84	Northstar
	6/5/2015	73.49	34.00	27.50	6.50	44.66	Northstar
	6/12/2015	73.49	33.96	27.35	6.61	44.78	Northstar
	6/19/2015	73.49	33.98	27.58	6.40	44.60	Northstar
	6/26/2015	73.49	33.97	28.15	5.82	44.15	Northstar
	7/2/2015	73.49	33.83	28.20	5.63	44.14	Northstar
	7/7/2015	73.49	33.60	27.93	5.67	44.40	Northstar

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	7/17/2015	73.49	33.57	27.85	5.72	44.47	Northstar
	7/24/2015	73.49	33.15	28.25	4.90	44.24	Northstar
	7/29/2015	73.49	33.02	28.10	4.92	44.38	Northstar
	8/11/2015	73.49	33.00	28.90	4.10	43.75	Northstar
	8/18/2015	73.49	32.65	28.23	4.42	44.35	Northstar
	8/28/2015	73.49	32.41	28.17	4.24	44.45	Kinder Morgan
	9/1/2015	73.49	33.18	28.65	4.53	43.91	Kinder Morgan
	9/25/2015	73.49	34.69	28.03	6.66	44.09	Kinder Morgan
	10/16/2015	73.49	34.63	27.83	6.80	44.27	Kinder Morgan
	10/19/2015	73.49	34.65	27.82	6.83	44.27	Blaine Tech
	10/30/2015	73.49	39.38	28.11	11.27	43.07	Kinder Morgan
	3/14/2016	73.49	32.40	31.60	0.80	41.73	Blaine Tech
	4/11/2016	73.49	33.35	26.86	6.49	45.30	Blaine Tech
	6/29/2016	73.49	33.90	33.10	0.80	40.23	Blaine Tech
	8/22/2016	73.49	33.56	31.07	2.49	41.91	Blaine Tech
	10/3/2016	73.49	34.20	31.90	2.30	41.12	Blaine Tech
	4/17/2017	73.49	32.90	28.70	4.20	43.95	Blaine Tech
GMW-O-15	4/30/2007	74.23	23.41	23.30	0.11	50.91	Secor
	11/12/2007	74.23	23.95	23.85	0.10	50.36	Stantec
	4/14/2008	74.23	23.64	---	---	50.59	Stantec
	8/8/2008	74.23	24.60	---	---	49.63	Envent
	8/11/2008	74.23	24.40	24.34	0.06	49.88	Stantec
	10/16/2008	74.23	24.53	---	---	49.70	Envent
	12/18/2008	74.23	24.86	---	---	49.37	Envent
	1/2/2009	74.23	24.82	---	---	49.41	Envent
	1/15/2009	74.23	26.01	---	---	48.22	Envent
	2/20/2009	74.23	24.80	---	---	49.43	Envent
	2/23/2009	74.23	24.76	24.74	0.02	49.49	Blaine Tech
	3/24/2009	74.23	25.55	---	---	48.68	Envent
	4/20/2009	74.23	24.66	24.61	0.05	49.61	Blaine Tech
	7/17/2009	74.23	25.01	---	---	49.22	Envent
	7/20/2009	74.23	24.99	24.94	0.05	49.28	Blaine Tech
	7/22/2009	74.23	24.99	24.94	0.05	49.28	Blaine Tech
	10/19/2009	74.23	25.55	25.43	0.12	48.78	Blaine Tech
	2/4/2010	74.23	25.50	25.48	0.02	48.75	Kinder Morgan
	3/15/2010	74.23	NM	---	---	NC	
	4/16/2010	74.23	23.10	---	---	51.13	Blaine Tech
	5/24/2010	74.23	25.67	---	---	48.56	Blaine Tech
	5/28/2010	74.23	25.35	---	---	48.88	Blaine Tech
	6/22/2010	74.23	25.81	---	---	48.42	Blaine Tech
	7/12/2010	74.23	NM	---	---	NC	
	8/12/2010	74.23	NM	---	---	NC	
	9/20/2010	74.23	NM	---	---	NC	
	10/4/2010	74.23	25.85	25.80	0.05	48.42	Blaine Tech
	11/23/2010	74.23	NM	---	---	NC	Blaine Tech
	12/22/2010	74.23	26.31	---	---	47.92	Blaine Tech
	1/10/2011	74.23	25.97	---	---	48.26	Blaine Tech
	2/24/2011	74.23	NM	---	---	NC	Blaine Tech
	3/23/2011	74.23	NM	---	---	NC	Blaine Tech
	4/12/2011	74.23	22.55	22.53	0.02	51.70	Blaine Tech
	5/13/2011	74.23	NM	---	---	NC	Blaine Tech
	6/22/2011	74.23	NM	---	---	NC	
	7/11/2011	74.23	NM	---	---	NC	
	8/19/2011	74.23	NM	---	---	NC	
	9/22/2011	74.23	NM	---	---	NC	
	10/10/2011	74.23	23.79	23.22	0.57	50.90	Blaine Tech
	11/28/2011	74.23	NM	---	---	NC	
	12/2/2011	74.23	23.92	23.86	0.06	50.36	Kinder Morgan
	12/21/2011	74.23	31.13	---	---	43.10	Blaine Tech
	1/9/2012	74.23	27.67	---	---	46.56	Blaine Tech
	2/23/2012	74.23	31.82	---	---	42.41	Blaine Tech

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	3/28/2012	74.23	30.30	---	---	43.93	Blaine Tech
	4/16/2012	74.23	26.56	26.51	0.05	47.71	Blaine Tech
	5/25/2012	74.23	26.64	---	---	47.59	Blaine Tech
	6/15/2012	74.23	26.93	---	---	47.30	Blaine Tech
	7/9/2012	74.23	25.47	---	---	48.76	Blaine Tech
	8/29/2012	74.23	NM	---	---	NC	Blaine Tech
	9/26/2012	74.23	30.64	---	---	43.59	Blaine Tech
	10/15/2012	74.23	31.82	---	---	42.41	Blaine Tech
	11/29/2012	74.23	NM	---	---	NC	Blaine Tech
	12/26/2012	74.23	27.41	---	---	46.82	Blaine Tech
	1/14/2013	74.23	27.62	---	---	46.61	Blaine Tech
	2/20/2013	74.23	NM	---	---	NC	Blaine Tech
	4/10/2013	74.23	NM	---	---	NC	Blaine Tech
	4/26/2013	74.23	27.90	---	---	46.33	Kinder Morgan
	10/7/2013	74.23	29.03	28.26	0.77	45.82	Blaine Tech
	4/18/2014	74.23	28.40	28.08	0.32	46.09	Blaine Tech
	8/14/2014	74.23	32.59	28.26	4.33	45.10	Blaine Tech
	8/19/2014	74.23	32.34	28.23	4.11	45.18	Blaine Tech
	8/29/2014	74.23	31.84	28.25	3.59	45.26	Blaine Tech
	9/5/2014	74.23	31.91	28.29	3.62	45.22	Blaine Tech
	9/11/2014	74.23	32.16	28.79	3.37	44.77	Blaine Tech
	9/18/2014	74.23	32.50	28.23	4.27	45.15	Blaine Tech
	9/26/2014	74.23	32.20	28.27	3.93	45.17	Blaine Tech
	10/1/2014	74.23	31.93	28.28	3.65	45.22	Blaine Tech
	10/6/2014	74.23	31.91	28.27	3.64	45.23	Blaine Tech
	10/14/2014	74.23	31.85	28.29	3.56	45.23	Blaine Tech
	10/23/2014	74.23	32.10	28.30	3.80	45.17	Blaine Tech
	10/27/2014	74.23	31.89	28.30	3.59	45.21	Blaine Tech
	11/18/2014	74.23	31.86	28.39	3.47	45.15	Blaine Tech
	11/25/2014	74.23	32.36	28.35	4.01	45.08	Blaine Tech
	12/3/2014	74.23	31.73	28.36	3.37	45.20	Blaine Tech
	12/12/2014	74.23	32.61	28.54	4.07	44.88	Blaine Tech
	12/19/2014	74.23	32.62	28.37	4.25	45.01	Blaine Tech
	4/20/2015	74.23	31.93	28.82	3.11	44.79	Blaine Tech
	10/19/2015	74.23	31.91	28.89	3.02	44.74	Blaine Tech
	4/12/2016	74.23	29.78	---	---	44.45	Kinder Morgan
	10/3/2016	74.86	31.00	30.92	0.08	43.92	Kinder Morgan
	3/9/2017	74.86	29.94	---	---	44.92	CH2M
	4/17/2017	74.86	29.65	29.52	0.13	45.31	Blaine Tech
GMW-O-18	4/30/2007	74.36	24.21	---	---	50.15	Secor
	11/12/2007	74.36	22.46	---	---	51.90	Secor
	4/14/2008	74.36	24.50	---	---	49.86	Secor
	10/13/2008	74.36	25.46	---	---	48.90	Stantec
	4/20/2009	74.36	25.59	---	---	48.77	Blaine Tech
	10/19/2009	74.36	26.31	---	---	48.05	Blaine Tech
	3/15/2010	74.36	26.54	---	---	47.82	Blaine Tech
	4/16/2010	74.36	24.25	---	---	50.11	Blaine Tech
	5/24/2010	74.36	26.26	---	---	48.10	Blaine Tech
	5/28/2010	74.36	26.03	---	---	48.33	Blaine Tech
	6/22/2010	74.36	26.41	---	---	47.95	
	7/12/2010	74.36	NM	---	---	NC	
	8/12/2010	74.36	NM	---	---	NC	
	9/20/2010	74.36	NM	---	---	NC	
	10/4/2010	74.36	29.95	---	---	44.41	Blaine Tech
	11/16/2010	74.36	NM	---	---	NC	
	12/22/2010	74.36	NM	---	---	NC	
	1/10/2011	74.36	NM	---	---	NC	
	2/24/2011	74.36	NM	---	---	NC	Blaine Tech
	3/23/2011	74.36	NM	---	---	NC	Blaine Tech
	4/12/2011	74.36	NM	---	---	NC	Blaine Tech
	5/13/2011	74.36	NM	---	---	NC	Blaine Tech



**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	6/22/2011	74.36	NM	---	---	NC	
	7/11/2011	74.36	NM	---	---	NC	
	8/19/2011	74.36	NM	---	---	NC	
	9/22/2011	74.36	NM	---	---	NC	
	10/10/2011	74.36	23.68	---	---	50.68	Blaine Tech
	11/28/2011	74.36	NM	---	---	NC	
	12/2/2011	74.36	24.22	---	---	50.14	Blaine Tech
	12/21/2011	74.36	27.14	---	---	47.22	Blaine Tech
	2/23/2012	74.36	31.18	---	---	43.18	Blaine Tech
	3/28/2012	74.36	NM	---	---	NC	Blaine Tech
	4/16/2012	74.36	27.10	---	---	47.26	Blaine Tech
	5/25/2012	74.36	27.31	---	---	47.05	Blaine Tech
	6/15/2012	74.36	35.13	---	---	39.23	Blaine Tech
	7/9/2012	74.36	29.51	---	---	44.85	Blaine Tech
	8/29/2012	74.36	NM	---	---	NC	Blaine Tech
	9/26/2012	74.36	30.83	---	---	43.53	Blaine Tech
	10/15/2012	74.36	29.73	---	---	44.63	Blaine Tech
	11/29/2012	74.36	NM	---	---	NC	Blaine Tech
	12/26/2012	74.36	28.87	---	---	45.49	Blaine Tech
	1/14/2013	74.36	28.92	---	---	45.44	Blaine Tech
	2/20/2013	74.36	NM	---	---	NC	Blaine Tech
	4/10/2013	74.36	28.10	---	---	46.26	Blaine Tech
	10/7/2013	74.36	26.67	---	---	47.69	Blaine Tech
	4/18/2014	74.36	29.43	29.37	0.06	44.98	Blaine Tech
	8/14/2014	74.36	29.87	29.45	0.42	44.83	Blaine Tech
	8/19/2014	74.36	29.97	29.58	0.39	44.70	Blaine Tech
	8/29/2014	74.36	29.77	29.34	0.43	44.93	Blaine Tech
	9/11/2014	74.36	29.96	29.61	0.35	44.68	Blaine Tech
	9/18/2014	74.36	29.95	29.56	0.39	44.72	Blaine Tech
	9/26/2014	74.36	29.97	29.55	0.42	44.73	Blaine Tech
	10/1/2014	74.36	29.90	29.52	0.38	44.76	Blaine Tech
	10/6/2014	74.36	29.94	29.56	0.38	44.72	Blaine Tech
	10/14/2014	74.36	29.94	29.58	0.36	44.71	Blaine Tech
	10/23/2014	74.36	30.00	29.62	0.38	44.66	Blaine Tech
	10/27/2014	74.36	29.95	29.52	0.43	44.75	Blaine Tech
	4/20/2015	74.36	28.53	---	---	45.83	Blaine Tech
	10/19/2015	74.36	30.90	---	---	43.46	Blaine Tech
	4/12/2016	74.36	31.63	---	---	42.73	Blaine Tech
	12/13/2016	74.32	35.95	31.01	4.94	42.32	Blaine Tech
	12/14/2016	74.32	32.60	---	---	41.72	Blaine Tech
	3/6/2017	74.32	33.40	32.60	0.80	41.56	CH2M
	4/17/2017	74.32	31.83	31.80	0.03	42.51	Blaine Tech
GMW-O-20	8/15/2008	73.32	25.90	---	---	47.42	Envent
	10/17/2008	73.32	25.82	---	---	47.50	Envent
	12/19/2008	73.32	27.15	---	---	46.17	Envent
	1/15/2009	73.32	26.53	26.09	0.44	47.15	Envent
	2/24/2009	73.32	27.85	---	---	45.47	Envent
	3/20/2009	73.32	28.81	---	---	44.51	Envent
	3/27/2009	73.32	27.84	---	---	45.48	Envent
	4/21/2009	73.32	28.70	---	---	44.62	Envent
	7/21/2009	73.32	24.10	---	---	49.22	Envent
	10/19/2009	73.32	NM	---	---	NC	Blaine Tech
	11/9/2009	73.32	25.60	25.40	0.20	47.88	Kinder Morgan
	6/22/2010	73.32	24.76	24.66	0.10	48.64	Blaine Tech
	10/4/2010	73.32	31.20	31.10	0.10	42.20	Blaine Tech
	1/10/2011	73.32	26.62	26.48	0.14	46.81	Blaine Tech
	4/11/2011	73.32	23.82	---	---	49.50	Blaine Tech
	7/11/2011	73.32	NM	---	---	NC	
	10/10/2011	73.32	24.05	---	---	49.27	Blaine Tech
	1/9/2012	73.32	24.68	---	---	48.64	Blaine Tech
	4/16/2012	73.32	26.18	---	---	47.14	Blaine Tech

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	7/9/2012	73.32	32.92	---	---	40.40	Blaine Tech
	10/15/2012	73.32	32.97	32.95	0.02	40.37	Blaine Tech
	1/14/2013	73.32	32.98	32.93	0.05	40.38	Blaine Tech
	4/8/2013	73.32	29.63	26.46	3.17	46.27	Blaine Tech
	9/24/2013	73.32	31.10	27.20	3.90	45.40	Blaine Tech
	10/7/2013	73.32	32.09	27.06	5.03	45.33	Blaine Tech
	4/25/2014	73.32	28.48	28.40	0.08	44.91	Blaine Tech
	9/18/2014	73.32	30.71	27.72	2.99	45.05	Blaine Tech
	9/26/2014	73.32	30.87	27.75	3.12	44.99	Blaine Tech
	10/1/2014	73.32	30.52	27.65	2.87	45.14	Blaine Tech
	10/6/2014	73.32	30.50	27.66	2.84	45.13	Blaine Tech
	10/14/2014	73.32	30.63	27.62	3.01	45.14	Blaine Tech
	10/23/2014	73.32	30.80	27.70	3.10	45.05	Blaine Tech
	10/27/2014	73.32	30.70	27.76	2.94	45.02	Blaine Tech
	11/3/2014	73.32	30.81	27.62	3.19	45.11	Blaine Tech
	11/10/2014	73.32	30.94	27.75	3.19	44.98	Blaine Tech
	11/18/2014	73.32	30.91	27.65	3.26	45.07	Blaine Tech
	11/25/2014	73.32	30.95	27.65	3.30	45.06	Blaine Tech
	12/3/2014	73.32	32.56	27.83	4.73	44.61	Blaine Tech
	12/19/2014	73.32	31.72	27.93	3.79	44.69	Blaine Tech
	4/22/2015	73.32	32.25	27.98	4.27	44.55	Blaine Tech
	10/22/2015	73.32	31.36	29.38	1.98	43.57	Kinder Morgan
	3/16/2016	73.32	32.54	---	---	40.78	Kinder Morgan
	4/12/2016	73.32	32.48	---	---	40.84	Kinder Morgan
	6/29/2016	73.32	32.50	---	---	40.82	Blaine Tech
	8/22/2016	73.32	32.18	---	---	41.14	Blaine Tech
	10/3/2016	73.32	33.12	---	---	40.20	Blaine Tech
	3/23/2017	73.32	30.35	---	---	42.97	CH2M
	4/17/2017	73.32	29.70	--	--	43.62	Blaine Tech
GMW-O-21	12/28/2007	71.43	27.67	---	---	43.76	Geomatrix
	8/15/2008	73.94	NM	---	---	NC	Envent
	10/17/2008	71.43	26.00	---	---	45.43	Envent
	12/19/2008	71.43	24.82	---	---	46.61	Envent
	3/27/2009	71.43	26.41	---	---	45.02	Envent
	7/21/2009	71.43	24.88	---	---	46.55	Envent
	10/19/2009	71.43	NM	---	---	NC	Blaine Tech
	11/9/2009	71.43	25.02	---	---	46.41	Kinder Morgan
	10/4/2010	71.43	25.40	---	---	46.03	Blaine Tech
	4/13/2011	71.43	23.72	---	---	47.71	Blaine Tech
	10/10/2011	71.43	24.65	---	---	46.78	Blaine Tech
	4/16/2012	71.43	NM	---	---	NC	Blaine Tech
	7/9/2012	71.43	NM	---	---	NC	Blaine Tech
	10/15/2012	71.43	32.50	---	---	38.93	Blaine Tech
	4/8/2013	71.43	NM	---	---	NC	Blaine Tech
	9/25/2013	71.43	29.25	---	---	42.18	Blaine Tech
	10/7/2013	71.43	NM	---	---	NC	Blaine Tech
	4/14/2014	71.43	28.65	28.61	0.04	42.81	Blaine Tech
	9/5/2014	71.43	29.61	28.78	0.83	42.48	Blaine Tech
	9/26/2014	71.43	29.85	28.77	1.08	42.44	Blaine Tech
	10/1/2014	71.43	29.79	28.64	1.15	42.56	Blaine Tech
	10/6/2014	71.43	29.40	28.72	0.68	42.57	Blaine Tech
	10/27/2014	71.43	29.75	28.93	0.82	42.34	Blaine Tech
	11/10/2014	71.43	29.98	28.95	1.03	42.27	Blaine Tech
	11/18/2014	71.43	30.05	28.92	1.13	42.28	Blaine Tech
	11/25/2014	71.43	29.73	28.85	0.88	42.40	Blaine Tech
	12/12/2014	71.43	30.61	29.02	1.59	42.09	Blaine Tech
	12/19/2014	71.43	30.62	29.04	1.58	42.07	Blaine Tech
	4/20/2015	71.43	30.15	28.99	1.16	42.21	Blaine Tech
	6/10/2015	71.43	31.00	30.70	0.30	40.67	Blaine Tech
	7/2/2015	71.43	32.30	29.88	2.42	41.07	Northstar
	7/7/2015	71.43	30.65	30.06	0.59	41.25	Northstar

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	7/17/2015	71.43	30.40	30.10	0.30	41.27	Northstar
	7/29/2015	71.43	30.40	30.10	0.30	41.27	Northstar
	8/11/2015	71.43	31.00	30.70	0.30	40.67	Northstar
	10/19/2015	71.43	31.43	31.20	0.23	40.18	Blaine Tech
	3/14/2016	71.43	33.20	33.17	0.03	38.25	Blaine Tech
	4/11/2016	71.43	32.17	31.84	0.33	39.52	Blaine Tech
	6/29/2016	71.43	33.03	32.83	0.20	38.56	Blaine Tech
	8/22/2016	71.43	33.72	---	---	37.71	Blaine Tech
	10/3/2016	71.43	33.45	---	---	37.98	Blaine Tech
	4/17/2017	71.43	30.48	--	--	40.95	Blaine Tech
GMW-O-23	8/14/2007	73.63	23.33	---	---	50.30	Geomatrix
	8/21/2007	73.63	23.31	---	---	50.32	Geomatrix
	8/28/2007	73.63	23.00	---	---	50.63	Stantec
	9/11/2007	73.63	23.42	---	---	50.21	Geomatrix
	10/5/2007	73.63	27.79	---	---	45.84	Geomatrix
	11/2/2007	73.63	25.15	---	---	48.48	Geomatrix
	11/13/2007	73.63	23.90	---	---	49.73	Stantec
	12/28/2007	73.63	24.91	---	---	48.72	Geomatrix
	8/15/2008	73.63	26.28	---	---	47.35	Envent
	10/17/2008	73.63	27.16	---	---	46.47	Envent
	12/19/2008	73.63	27.60	---	---	46.03	Envent
	1/15/2009	73.63	27.54	---	---	46.09	Envent
	2/24/2009	73.63	26.19	---	---	47.44	Envent
	3/27/2009	73.63	23.74	---	---	49.89	Envent
	4/21/2009	73.63	27.30	---	---	46.33	Envent
	10/19/2009	73.63	NM	---	---	NC	Blaine Tech
	11/9/2009	73.63	27.50	---	---	46.13	Kinder Morgan
	6/22/2010	73.63	32.10	---	---	41.53	Blaine Tech
	10/4/2010	73.63	25.92	---	---	47.71	Blaine Tech
	1/10/2011	73.63	27.45	---	---	46.18	Blaine Tech
	4/11/2011	73.63	25.03	---	---	48.60	Blaine Tech
	7/11/2011	73.63	NM	---	---	NC	
	10/10/2011	73.63	25.25	---	---	48.38	Blaine Tech
	1/9/2012	73.63	25.91	---	---	47.72	Blaine Tech
	4/16/2012	73.63	27.38	---	---	46.25	Blaine Tech
	7/9/2012	73.63	27.41	---	---	46.22	Blaine Tech
	10/15/2012	73.63	26.48	---	---	47.15	Blaine Tech
	1/14/2013	73.63	29.35	---	---	44.28	Blaine Tech
	4/8/2013	73.63	29.81	27.74	2.07	45.48	Blaine Tech
	9/23/2013	73.63	29.90	---	---	43.73	Blaine Tech
	10/7/2013	73.63	32.86	28.30	4.56	44.42	Blaine Tech
	4/25/2014	73.63	29.81	29.66	0.15	43.94	Blaine Tech
	9/5/2014	73.63	32.57	28.76	3.81	44.11	Blaine Tech
	9/11/2014	73.63	32.94	28.63	4.31	44.14	Blaine Tech
	9/18/2014	73.63	32.80	28.65	4.15	44.15	Blaine Tech
	9/26/2014	73.63	32.87	28.70	4.17	44.10	Blaine Tech
	10/1/2014	73.63	32.56	28.75	3.81	44.12	Blaine Tech
	10/6/2014	73.63	32.50	28.73	3.77	44.15	Blaine Tech
	10/14/2014	73.63	32.75	28.20	4.55	44.52	Blaine Tech
	10/23/2014	73.63	32.80	28.69	4.11	44.12	Blaine Tech
	10/27/2014	73.63	32.51	28.80	3.71	44.09	Blaine Tech
	11/3/2014	73.63	32.82	29.68	3.14	43.32	Blaine Tech
	11/10/2014	73.63	32.80	28.78	4.02	44.05	Blaine Tech
	11/18/2014	73.63	32.78	29.78	3.00	43.25	Blaine Tech
	11/25/2014	73.63	32.64	28.78	3.86	44.08	Blaine Tech
	12/3/2014	73.63	33.25	28.94	4.31	43.83	Blaine Tech
	12/12/2014	73.63	32.58	29.33	3.25	43.65	Blaine Tech
	12/19/2014	73.63	32.71	29.37	3.34	43.59	Blaine Tech
	3/17/2015	73.63	30.40	30.00	0.40	43.55	Kinder Morgan
	4/22/2015	73.63	33.08	30.36	2.72	42.73	Blaine Tech
	10/22/2015	73.63	32.82	30.46	2.36	42.70	Kinder Morgan

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	3/16/2016	73.63	34.43	---	---	39.20	Kinder Morgan
	4/12/2016	73.63	32.59	---	---	41.04	Kinder Morgan
	6/29/2016	73.63	33.90	---	---	39.73	Blaine Tech
	8/22/2016	73.63	33.89	---	---	39.74	Blaine Tech
	10/3/2016	73.63	34.90	---	---	38.73	Blaine Tech
	3/23/2017	73.63	31.65	---	---	41.98	CH2M
	4/17/2017	73.63	30.88	---	---	42.75	Blaine Tech
	GMW-SF-9	4/21/2009	73.00	24.19	---	---	48.81
5/24/2010		73.00	28.31	---	---	44.69	Blaine Tech
5/28/2010		73.00	28.37	---	---	44.63	Blaine Tech
10/4/2010		73.00	25.28	---	---	47.72	Blaine Tech
4/11/2011		73.00	23.90	---	---	49.10	Blaine Tech
10/10/2011		73.00	24.70	---	---	48.30	Blaine Tech
4/16/2012		73.00	26.99	---	---	46.01	Blaine Tech
7/9/2012		73.00	NM	---	---	NC	Blaine Tech
10/15/2012		73.05	34.21	---	---	38.84	Blaine Tech
1/14/2013		73.05	34.32	---	---	38.73	Blaine Tech
4/10/2013		73.05	27.37	---	---	45.68	Blaine Tech
8/14/2014		73.05	29.35	28.37	0.98	44.48	Blaine Tech
8/19/2014		73.05	28.46	28.44	0.02	44.61	Blaine Tech
8/29/2014		73.05	29.32	28.31	1.01	44.54	Blaine Tech
9/5/2014		73.05	29.33	28.29	1.04	44.55	Blaine Tech
9/11/2014		73.05	29.49	28.47	1.02	44.38	Blaine Tech
9/18/2014		73.05	28.95	28.91	0.04	44.13	Blaine Tech
9/26/2014		73.05	28.93	28.59	0.34	44.39	Blaine Tech
4/20/2015	73.05	29.01	---	---	44.04	Blaine Tech	
10/21/2015	73.05	29.69	---	---	43.36	Blaine Tech	
3/6/2017	73.05	28.88	---	---	44.17	CH2M	
GMW-SF-10	4/21/2009	75.77	27.10	---	---	48.67	Envent
	10/4/2010	75.77	28.03	---	---	47.74	Blaine Tech
	4/11/2011	75.77	26.80	---	---	48.97	Blaine Tech
	10/10/2011	75.77	27.60	---	---	48.17	Blaine Tech
	4/16/2012	75.77	28.81	---	---	46.96	Blaine Tech
	7/9/2012	75.77	NM	---	---	NC	Blaine Tech
	10/15/2012	75.77	29.88	---	---	45.89	Blaine Tech
	4/8/2013	75.77	DRY	---	---	NC	Blaine Tech
GWR-3	4/30/2007	74.93	27.97	---	---	46.96	Secor
	11/12/2007	74.93	27.90	---	---	47.03	Stantec
	10/17/2008	74.93	29.88	---	---	45.05	Envent
	12/17/2008	74.93	19.71	---	---	55.22	Envent
	1/15/2009	74.93	29.27	29.26	0.26	45.88	Envent
	3/27/2009	74.93	27.18	---	---	47.75	Envent
	4/21/2009	74.93	29.97	---	---	44.96	Envent
	7/21/2009	74.93	28.77	---	---	46.16	Envent
	10/19/2009	74.93	NM	---	---	NC	Blaine Tech
	10/4/2010	74.93	30.67	---	---	44.26	Blaine Tech
	4/11/2011	74.93	29.94	---	---	44.99	Blaine Tech
	10/10/2011	74.93	29.22	---	---	45.71	Blaine Tech
	4/16/2012	74.93	29.56	---	---	45.37	Blaine Tech
	7/9/2012	---	NM	---	---	NC	Blaine Tech
	10/15/2012	77.6	31.21	---	---	46.39	Blaine Tech
	4/8/2013	77.6	29.21	29.18	0.03	48.41	Blaine Tech
	10/7/2013	77.6	36.20	31.67	4.53	45.16	Blaine Tech
	4/14/2014	77.6	38.80	32.23	6.57	44.25	Blaine Tech
	5/5/2014	77.6	38.81	32.31	6.50	44.18	Nieto & Sons
	5/12/2014	77.6	36.34	32.77	3.57	44.22	Nieto & Sons
	5/27/2014	77.6	36.11	33.20	2.91	43.91	Nieto & Sons
	6/4/2014	77.6	34.57	31.61	2.96	45.49	Nieto & Sons
	8/8/2014	77.6	37.92	33.38	4.54	43.45	Blaine Tech
8/13/2014	77.6	35.38	33.18	2.20	44.05	Blaine Tech	
8/19/2014	77.6	35.28	33.25	2.03	44.00	Blaine Tech	

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	8/29/2014	77.6	35.72	33.12	2.60	44.04	Blaine Tech
	9/5/2014	77.6	35.68	33.19	2.49	43.99	Blaine Tech
	9/11/2014	77.6	36.05	33.04	3.01	44.05	Blaine Tech
	9/18/2014	77.60	35.34	33.27	2.07	43.98	Blaine Tech
	9/26/2014	77.60	35.25	33.24	2.01	44.02	Blaine Tech
	10/1/2014	77.60	36.44	34.01	2.43	43.18	Blaine Tech
	10/6/2014	77.60	34.71	33.33	1.38	44.04	Blaine Tech
	10/14/2014	77.60	35.15	33.20	1.95	44.07	Blaine Tech
	10/23/2014	77.60	35.36	33.20	2.16	44.03	Blaine Tech
	10/27/2014	77.60	34.68	33.49	1.19	43.91	Blaine Tech
	11/3/2014	77.60	35.43	33.18	2.25	44.04	Blaine Tech
	11/10/2014	77.60	35.02	33.32	1.70	43.99	Blaine Tech
	11/18/2014	77.60	35.05	33.34	1.71	43.97	Blaine Tech
	11/25/2014	77.60	35.04	33.36	1.68	43.95	Blaine Tech
	12/3/2014	77.60	34.95	33.34	1.61	43.99	Blaine Tech
	12/12/2014	77.60	35.11	33.64	1.47	43.71	Blaine Tech
	12/19/2014	77.60	35.55	33.67	1.88	43.61	Blaine Tech
	4/20/2015	77.60	37.25	33.34	3.91	43.60	Blaine Tech
	7/24/2015	77.60	41.30	33.95	7.35	42.40	Northstar
	8/12/2015	77.60	37.03	34.42	2.61	42.74	Northstar
	10/20/2015	77.60	35.98	34.65	1.33	42.72	Blaine Tech
	3/16/2016	77.60	38.60	---	---	39.00	Kinder Morgan
	4/11/2016	77.60	36.90	---	---	40.70	Blaine Tech
	6/29/2016	77.60	37.77	---	---	39.83	Blaine Tech
	8/22/2016	77.60	38.24	---	---	39.36	Blaine Tech
	10/3/2016	77.60	39.20	39.15	0.05	38.44	Blaine Tech
	3/7/2017	77.60	35.62	---	---	41.98	CH2M
	4/17/2017	77.60	34.88	--	--	42.72	Blaine Tech
MW-18 (MID)	4/30/2007	75.67	29.77	---	---	45.90	Secor
	11/12/2007	75.67	30.23	---	---	45.44	Secor
	4/14/2008	75.67	30.45	---	---	45.22	Secor
	10/13/2008	75.67	31.15	---	---	44.52	Stantec
	4/20/2009	75.67	31.49	---	---	44.18	Blaine Tech
	10/19/2009	75.67	32.62	---	---	43.05	Blaine Tech
	5/24/2010	75.67	32.26	---	---	43.41	Blaine Tech
	5/28/2010	75.67	32.17	---	---	43.50	Blaine Tech
	10/4/2010	75.67	32.30	---	---	43.37	Blaine Tech
	4/11/2011	75.67	31.28	---	---	44.39	Blaine Tech
	10/10/2011	75.67	31.51	---	---	44.16	Blaine Tech
	4/16/2012	75.67	31.75	---	---	43.92	Blaine Tech
	7/9/2012	75.67	NM	---	---	NC	Blaine Tech
	10/15/2012	75.67	33.41	---	---	42.26	Blaine Tech
	4/8/2013	75.67	30.68	---	---	44.99	Blaine Tech
	10/7/2013	75.67	35.33	---	---	40.34	Blaine Tech
	4/14/2014	75.67	35.40	---	---	40.27	Blaine Tech
	10/27/2014	75.67	35.81	---	---	39.86	Blaine Tech
	4/20/2015	75.67	36.29	---	---	39.38	Blaine Tech
	10/19/2015	75.67	36.99	---	---	38.68	Blaine Tech
	3/14/2016	75.67	40.70	---	---	34.97	Blaine Tech
	4/11/2016	75.67	38.89	---	---	36.78	Blaine Tech
	6/29/2016	75.67	39.94	---	---	35.73	Blaine Tech
	8/22/2016	75.67	40.14	---	---	35.53	Blaine Tech
	10/3/2016	75.67	40.93	---	---	34.74	Blaine Tech
	4/17/2017	75.67	37.50	--	--	38.17	Blaine Tech
MW-O-1	4/30/2007	75.48	24.10	23.98	0.12	51.48	Secor
	8/14/2007	75.48	25.31	23.78	1.53	51.39	Geomatrix
	8/21/2007	75.48	23.84	23.58	0.26	51.85	Geomatrix
	8/28/2007	75.48	23.07	23.06	0.01	52.42	Stantec
	9/11/2007	75.48	23.86	23.48	0.38	51.92	Geomatrix
	10/5/2007	75.48	24.67	---	---	50.81	Geomatrix
	11/2/2007	75.48	24.25	---	---	51.23	Geomatrix

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	11/12/2007	75.48	24.27	24.25	0.02	51.23	Stantec
	12/28/2007	75.48	25.54	25.51	0.03	49.96	Geomatrix
	8/15/2008	75.48	NM	---	---	NC	Envent
	8/19/2008	75.48	25.18	25.13	0.05	50.34	Envent
	10/17/2008	75.48	25.30	---	---	50.18	Envent
	12/19/2008	75.48	26.31	---	---	49.17	Envent
	1/15/2009	75.48	25.84	---	---	49.64	Envent
	4/21/2009	75.48	25.41	---	---	50.07	Envent
	10/19/2009	75.48	26.30	---	---	49.18	Blaine Tech
	10/4/2010	75.48	26.90	---	---	48.58	Blaine Tech
	4/11/2011	75.48	25.59	---	---	49.89	Blaine Tech
	10/10/2011	75.48	26.52	---	---	48.96	Blaine Tech
	4/16/2012	75.48	27.25	---	---	48.23	Blaine Tech
	7/9/2012	75.48	NM	---	---	NC	Blaine Tech
	10/15/2012	75.48	28.94	---	---	46.54	Blaine Tech
	4/8/2013	75.48	28.81	---	---	46.67	Blaine Tech
	10/7/2013	75.48	29.21	---	---	46.27	Blaine Tech
	4/14/2014	75.48	29.82	---	---	45.66	Blaine Tech
	10/27/2014	75.48	29.92	---	---	45.56	Blaine Tech
	4/20/2015	75.48	30.39	---	---	45.09	Blaine Tech
	10/27/2015	75.48	27.67	---	---	47.81	Blaine Tech
	3/14/2016	75.48	DRY	---	---	NC	Blaine Tech
	4/11/2016	75.48	DRY	---	---	NC	Blaine Tech
	6/29/2016	75.48	DRY	---	---	NC	Blaine Tech
	8/22/2016	75.48	DRY	---	---	NC	Blaine Tech
	10/3/2016	75.48	DRY	---	---	NC	Blaine Tech
	4/17/2017	75.48	DRY	---	---	NC	Blaine Tech
MW-O-2	4/30/2007	74.31	22.53	---	---	51.78	Secor
	11/12/2007	71.90	23.10	---	---	48.80	Stantec
	8/15/2008	71.90	NM	---	---	NC	Envent
	10/17/2008	71.90	24.85	---	---	47.05	Envent
	12/19/2008	71.90	25.51	---	---	46.39	Envent
	3/27/2009	71.90	25.22	---	---	46.68	Envent
	4/21/2009	71.90	NM	---	---	NC	Envent
	7/21/2009	71.90	23.63	---	---	48.27	Envent
	10/19/2009	71.90	NM	---	---	NC	Blaine Tech
	11/9/2009	71.90	25.39	---	---	46.51	Kinder Morgan
	10/4/2010	71.90	26.05	---	---	45.85	Blaine Tech
	4/13/2011	71.9	23.31	---	---	48.59	Blaine Tech
	10/10/2011	71.9	27.53	---	---	44.37	Blaine Tech
	1/9/2012	71.9	28.13	---	---	43.77	Blaine Tech
	4/16/2012	71.9	NM	---	---	NC	Blaine Tech
	7/9/2012	71.9	26.53	---	---	45.37	Blaine Tech
	10/15/2012	71.9	26.89	---	---	45.01	Blaine Tech
	1/14/2013	71.9	26.93	---	---	44.97	Blaine Tech
	4/8/2013	71.9	NM	---	---	NC	Blaine Tech
	6/6/2013	71.9	28.99	---	---	42.91	Blaine Tech
	10/7/2013	71.9	29.06	---	---	42.84	Blaine Tech
	4/14/2014	71.9	29.36	---	---	42.54	Blaine Tech
	10/27/2014	71.9	29.81	29.65	0.16	42.22	Blaine Tech
	4/20/2015	71.9	30.94	29.34	1.60	42.24	Blaine Tech
	5/21/2015	71.9	32.50	27.31	5.19	43.55	Northstar
	5/29/2015	71.9	31.52	30.20	1.32	41.44	Northstar
	6/5/2015	71.9	31.45	30.57	0.88	41.15	Northstar
	6/12/2015	71.9	31.05	30.60	0.45	41.21	Northstar
	6/19/2015	71.9	31.10	30.90	0.20	40.96	Northstar
	6/26/2015	71.9	31.66	31.37	0.29	40.47	Northstar
	10/19/2015	71.9	32.39	30.53	1.86	41.00	Blaine Tech
	3/14/2016	71.9	35.49	34.86	0.63	36.91	Blaine Tech
	4/11/2016	71.9	33.03	32.54	0.49	39.26	Blaine Tech
	6/30/2016	71.9	34.20	---	---	37.70	Kinder Morgan

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By	
	8/22/2016	71.9	33.93	---	---	37.97	Kinder Morgan	
	10/3/2016	71.9	34.30	34.22	0.08	37.66	Blaine Tech	
	4/17/2017	71.9	30.91	30.85	0.06	41.04	Blaine Tech	
MW-SF-1	3/12/2007	78.93	28.71	---	---	50.22	Secor	
	4/30/2007	78.93	28.44	---	---	50.49	Secor	
	8/28/2007	78.93	27.94	---	---	50.99	Stantec	
	11/12/2007	78.93	28.76	---	---	50.17	Stantec	
	2/19/2008	78.93	29.50	---	---	49.43	Stantec	
	4/14/2008	78.93	29.16	---	---	49.77	Stantec	
	8/11/2008	78.93	29.75	---	---	49.18	Stantec	
	10/13/2008	78.93	29.86	---	---	49.07	Stantec	
	2/23/2009	78.93	30.00	---	---	48.93	Blaine Tech	
	4/20/2009	78.93	29.97	---	---	48.96	Blaine Tech	
	7/20/2009	78.93	30.98	---	---	47.95	Blaine Tech	
	7/22/2009	78.93	30.98	---	---	47.95	Blaine Tech	
	10/19/2009	78.93	31.11	---	---	47.82	Blaine Tech	
	3/15/2010	78.93	31.74	---	---	47.19	Blaine Tech	
	5/24/2010	78.93	30.79	---	---	48.14	Blaine Tech	
	5/28/2010	78.93	30.57	---	---	48.36	Blaine Tech	
	6/22/2010	78.93	30.84	---	---	48.09	Blaine Tech	
	7/12/2010	78.93	30.51	---	---	48.42	Blaine Tech	
	10/4/2010	78.93	30.88	---	---	48.05	Blaine Tech	
	1/10/2011	78.93	32.51	---	---	46.42	Blaine Tech	
	4/11/2011	78.93	29.87	---	---	49.06	Blaine Tech	
	7/11/2011	78.93	29.84	---	---	49.09	Blaine Tech	
	10/10/2011	78.93	29.60	---	---	49.33	Blaine Tech	
	1/9/2012	78.93	31.25	---	---	47.68	Blaine Tech	
	4/16/2012	78.93	32.59	---	---	46.34	Blaine Tech	
	7/9/2012	78.93	31.24	---	---	47.69	Blaine Tech	
	10/15/2012	78.93	32.23	---	---	46.70	Blaine Tech	
	1/14/2013	78.93	33.88	---	---	45.05	Blaine Tech	
	4/8/2013	78.93	33.38	---	---	45.55	Blaine Tech	
	10/7/2013	78.93	37.14	31.72	---	5.42	46.13	Blaine Tech
	4/14/2014	78.93	37.40	32.69	---	4.71	45.30	Blaine Tech
	5/6/2014	78.93	39.99	32.82	---	7.17	44.68	Nieto & Sons
	5/12/2014	78.93	37.31	33.55	---	3.76	44.63	Nieto & Sons
5/20/2014	78.93	37.10	34.60	---	2.50	43.83	Nieto & Sons	
5/27/2014	78.93	36.62	34.30	---	2.32	44.17	Nieto & Sons	
6/4/2014	78.93	35.98	35.27	---	0.71	43.52	Nieto & Sons	
6/10/2014	78.93	36.91	34.48	---	2.43	43.96	Nieto & Sons	
7/3/2014	78.93	36.72	34.71	---	2.01	43.82	Nieto & Sons	
7/8/2014	78.93	36.60	34.45	---	2.15	44.05	Blaine Tech	
7/18/2014	78.93	35.18	34.77	---	0.41	44.08	Blaine Tech	
7/24/2014	78.93	35.30	34.62	---	0.68	44.17	Blaine Tech	
8/1/2014	78.93	34.74	34.44	---	0.30	44.43	Blaine Tech	
8/14/2014	78.93	34.75	34.41	---	0.34	44.45	Blaine Tech	
8/19/2014	78.93	34.66	34.37	---	0.29	44.50	Blaine Tech	
8/29/2014	78.93	35.65	35.38	---	0.27	43.50	Blaine Tech	
9/18/2014	78.93	34.85	34.49	---	0.36	44.37	Blaine Tech	
9/26/2014	78.93	34.78	34.45	---	0.33	44.41	Blaine Tech	
10/1/2014	78.93	34.77	34.41	---	0.36	44.45	Blaine Tech	
10/6/2014	78.93	34.78	34.42	---	0.36	44.44	Blaine Tech	
10/14/2014	78.93	34.65	34.41	---	0.24	44.47	Blaine Tech	
10/23/2014	78.93	34.84	34.45	---	0.39	44.40	Blaine Tech	
10/27/2014	78.93	34.80	34.43	---	0.37	44.43	Blaine Tech	
11/10/2014	78.93	34.91	34.51	---	0.40	44.34	Blaine Tech	
11/18/2014	78.93	34.80	34.43	---	0.37	44.43	Blaine Tech	
11/25/2014	78.93	34.53	34.51	---	0.02	44.42	Blaine Tech	
12/12/2014	78.93	35.18	34.78	---	0.40	44.07	Blaine Tech	
12/19/2014	78.93	35.34	34.88	---	0.46	43.96	Blaine Tech	
4/20/2015	78.93	34.89	34.48	---	0.41	44.37	Blaine Tech	

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	5/19/2015	78.93	38.45	34.55	3.90	43.60	Northstar
	5/29/2015	78.93	36.36	35.22	1.14	43.48	Northstar
	6/5/2015	78.93	36.50	35.43	1.07	43.29	Northstar
	6/12/2015	78.93	35.80	35.41	0.39	43.44	Northstar
	6/19/2015	78.93	36.02	35.42	0.60	43.39	Northstar
	6/26/2015	78.93	36.60	36.45	0.15	42.45	Northstar
	10/19/2015	78.93	36.35	35.53	0.82	43.24	Blaine Tech
	11/17/2015	78.93	35.65	---	---	43.28	Kinder Morgan
	3/14/2016	78.93	40.40	---	---	38.53	Blaine Tech
	4/11/2016	78.93	37.96	---	---	40.97	Blaine Tech
	6/29/2016	78.93	39.05	---	---	39.88	Blaine Tech
	8/22/2016	78.93	39.04	---	---	39.87	Blaine Tech
	10/3/2016	78.93	39.20	---	---	39.73	Blaine Tech
	4/17/2017	78.93	35.75	--	--	43.18	Blaine Tech
MW-SF-2	4/30/2007	78.45	28.35	28.34	0.01	50.11	Secor
	11/12/2007	78.45	29.18	28.71	0.47	49.65	Stantec
	8/12/2008	78.45	31.11	---	---	47.34	Envent
	10/17/2008	78.45	31.55	31.50	0.05	46.94	Envent
	12/18/2008	78.53	32.75	32.55	0.20	45.94	Envent
	1/15/2009	78.53	30.84	30.57	0.27	47.91	Envent
	3/24/2009	78.53	28.85	---	---	49.68	Envent
	4/21/2009	78.53	29.98	---	---	48.55	Envent
	7/21/2009	78.53	29.85	---	---	48.68	Envent
	10/19/2009	78.53	NM	---	---	NC	Blaine Tech
	12/9/2009	78.53	31.45	---	---	47.08	Kinder Morgan
	10/4/2010	78.53	30.96	30.75	0.21	47.74	Blaine Tech
	1/10/2011	78.53	32.62	32.50	0.12	46.01	Blaine Tech
	4/11/2011	78.53	29.83	---	---	48.70	Blaine Tech
	7/11/2011	78.53	NM	---	---	NC	
	10/10/2011	78.53	29.82	---	---	48.71	Blaine Tech
	1/9/2012	78.53	30.52	---	---	48.01	Blaine Tech
	4/16/2012	78.53	31.28	---	---	47.25	Blaine Tech
	7/9/2012	78.53	33.18	---	---	45.35	Blaine Tech
	10/15/2012	78.53	32.11	---	---	46.42	Blaine Tech
	1/14/2013	78.53	33.59	---	---	44.94	Blaine Tech
	4/8/2013	78.53	33.32	---	---	45.21	Blaine Tech
	10/7/2013	78.53	34.58	33.08	1.50	45.15	Blaine Tech
	4/14/2014	78.53	37.50	33.27	4.23	44.41	Blaine Tech
	5/6/2014	78.53	37.71	33.24	4.47	44.40	Nieto & Sons
	5/12/2014	78.53	37.53	33.34	4.19	44.35	Nieto & Sons
	5/20/2014	78.53	37.62	33.51	4.11	44.20	Nieto & Sons
	5/27/2014	78.53	38.24	33.77	4.47	43.87	Nieto & Sons
	6/4/2014	78.53	34.63	---	---	43.90	Nieto & Sons
	6/10/2014	78.53	38.49	34.00	4.49	43.63	Nieto & Sons
	8/8/2014	78.53	36.23	33.82	2.41	44.23	Blaine Tech
	8/13/2014	78.53	36.75	33.59	3.16	44.31	Blaine Tech
	8/19/2014	78.53	36.90	33.60	3.30	44.27	Blaine Tech
	8/29/2014	78.53	37.11	33.53	3.58	44.28	Blaine Tech
	9/5/2014	78.53	37.09	33.51	3.58	44.30	Blaine Tech
	9/11/2014	78.53	37.12	33.51	3.61	44.30	Blaine Tech
	9/18/2014	78.53	36.89	33.60	3.29	44.27	Blaine Tech
	9/26/2014	78.53	37.28	33.54	3.74	44.24	Blaine Tech
	10/1/2014	78.53	37.18	33.56	3.62	44.25	Blaine Tech
	10/6/2014	78.53	37.16	33.59	3.57	44.23	Blaine Tech
	10/14/2014	78.53	37.15	33.64	3.51	44.19	Blaine Tech
	10/23/2014	78.53	37.24	33.61	3.63	44.19	Blaine Tech
	10/27/2014	78.53	37.04	33.54	3.50	44.29	Blaine Tech
	11/3/2014	78.53	37.14	33.55	3.59	44.26	Blaine Tech
	11/10/2014	78.53	37.33	33.56	3.77	44.22	Blaine Tech
	11/18/2014	78.53	37.21	33.64	3.57	44.18	Blaine Tech
	11/25/2014	78.53	37.40	33.69	3.71	44.10	Blaine Tech



**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	12/3/2014	78.53	37.16	33.60	3.56	44.22	Blaine Tech
	12/12/2014	78.53	38.05	33.91	4.14	43.79	Blaine Tech
	12/19/2014	78.53	38.40	33.95	4.45	43.69	Blaine Tech
	4/20/2015	78.53	36.15	34.73	1.42	43.52	Blaine Tech
	6/25/2015	78.53	38.95	35.57	3.38	42.28	Blaine Tech
	10/21/2015	78.53	36.32	36.13	0.19	42.36	Kinder Morgan
	3/16/2016	78.53	39.27	---	---	39.26	Kinder Morgan
	4/11/2016	78.53	37.47	---	---	41.06	Blaine Tech
	6/29/2016	78.53	38.08	---	---	40.45	Blaine Tech
	8/22/2016	78.53	38.83	---	---	39.70	Blaine Tech
	10/3/2016	78.53	39.60	---	---	38.93	Blaine Tech
	3/10/2017	78.53	36.47	---	---	42.06	CH2M
	4/17/2017	78.53	35.78	---	---	42.75	Blaine Tech
	MW-SF-3	4/30/2007	77.62	27.72	27.45	0.27	50.12
11/12/2007		77.62	29.34	28.28	1.06	49.13	Stantec
8/12/2008		77.62	30.30	29.05	1.25	48.32	Envent
10/17/2008		77.62	29.45	---	---	48.17	Envent
12/18/2008		78.12	31.08	30.82	0.26	47.25	Envent
1/15/2009		78.12	29.96	29.94	0.02	48.18	Envent
3/20/2009		78.12	31.10	---	---	47.02	Envent
3/24/2009		78.12	27.82	---	---	50.30	Envent
4/21/2009		78.12	29.51	29.50	0.01	48.62	Envent
7/21/2009		78.12	30.07	---	---	48.05	Envent
10/19/2009		78.12	NM	---	---	NC	Blaine Tech
11/6/2009		78.12	30.37	30.35	0.02	47.77	Kinder Morgan
12/9/2009		78.12	30.53	---	---	47.59	Kinder Morgan
9/3/2010		78.12	30.97	30.42	0.55	47.59	Kinder Morgan
10/4/2010		78.12	30.88	30.30	0.58	47.70	Blaine Tech
4/12/2011		78.12	29.44	---	---	48.68	Blaine Tech
10/10/2011		78.12	30.75	---	---	47.37	Blaine Tech
4/16/2012		78.12	NM	---	---	NC	Blaine Tech
7/9/2012		78.12	NM	---	---	NC	Blaine Tech
10/15/2012		78.12	32.47	---	---	45.65	Blaine Tech
5/24/2013		78.12	33.35	32.51	0.84	45.44	Blaine Tech
9/25/2013		78.12	34.40	---	---	43.72	Blaine Tech
10/7/2013		78.12	NM	---	---	NC	Blaine Tech
11/14/2013		78.12	33.26	---	---	44.86	Blaine Tech
4/18/2014		78.12	33.72	33.62	0.10	44.48	Blaine Tech
8/8/2014		78.12	34.07	33.71	0.36	44.34	Blaine Tech
10/14/2014		78.12	34.55	33.92	0.63	44.07	Blaine Tech
10/23/2014		78.12	34.57	33.94	0.63	44.05	Blaine Tech
10/27/2014		78.12	34.49	33.85	0.64	44.14	Blaine Tech
11/10/2014		78.12	34.65	33.94	0.71	44.04	Blaine Tech
11/18/2014		78.12	34.62	33.88	0.74	44.09	Blaine Tech
11/25/2014		78.12	34.22	33.94	0.28	44.12	Blaine Tech
12/12/2014		78.12	34.89	34.38	0.51	43.64	Blaine Tech
12/19/2014		78.12	35.04	34.43	0.61	43.57	Blaine Tech
4/20/2015	78.12	34.52	---	---	43.60	Blaine Tech	
10/21/2015	78.12	35.18	---	---	42.94	Kinder Morgan	
3/14/2016	78.12	39.43	39.40	0.03	38.71	Blaine Tech	
4/11/2016	78.12	37.17	---	---	40.95	Blaine Tech	
6/30/2016	78.12	38.28	---	---	39.84	Kinder Morgan	
8/22/2016	78.12	38.33	---	---	39.79	Kinder Morgan	
10/3/2016	78.12	39.40	---	---	38.72	Kinder Morgan	
3/8/2017	78.12	35.75	---	---	42.37	CH2M	
4/17/2017	78.12	35.15	---	---	42.97	Blaine Tech	
MW-SF-4	3/12/2007	79.38	30.01	29.41	0.60	49.85	Secor
	4/30/2007	79.38	29.96	29.11	0.85	50.10	Secor
	8/14/2007	79.38	30.34	28.38	1.96	50.60	Geomatrix
	8/28/2007	79.38	29.95	28.30	1.65	50.74	Stantec
	9/11/2007	79.38	29.98	28.43	1.55	50.63	Geomatrix

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**  
*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/5/2007	79.38	30.68	28.85	1.83	50.15	Geomatrix
	10/12/2007	79.38	30.27	29.96	0.31	49.36	Geomatrix
	10/19/2007	79.38	30.28	---	---	49.10	Geomatrix
	10/26/2007	79.38	30.52	---	---	48.86	Geomatrix
	11/2/2007	79.38	30.68	---	---	48.70	Geomatrix
	11/12/2007	79.38	29.70	29.69	0.01	49.69	Stantec
	12/21/2007	79.38	30.69	---	---	48.69	Geomatrix
	2/19/2008	79.38	30.22	---	---	49.16	Stantec
	3/21/2008	79.38	30.07	---	---	49.31	Envent
	4/14/2008	79.38	29.95	---	---	49.43	Stantec
	8/8/2008	79.38	30.51	---	---	48.87	Envent
	8/11/2008	79.38	30.57	---	---	48.81	Stantec
	10/16/2008	79.38	30.77	---	---	48.61	Envent
	1/15/2009	79.38	31.14	---	---	48.24	Envent
	2/20/2009	79.38	30.84	---	---	48.54	Envent
	2/23/2009	79.38	30.96	---	---	48.42	Blaine Tech
	4/20/2009	79.38	30.02	29.94	0.08	49.42	Blaine Tech
	4/28/2009	79.38	30.78	---	---	48.60	Envent
	7/17/2009	79.38	31.85	---	---	47.53	Envent
	7/20/2009	79.38	31.65	31.61	0.04	47.76	Blaine Tech
	7/22/2009	79.38	31.65	31.61	0.04	47.76	Blaine Tech
	10/19/2009	79.38	31.93	31.90	0.03	47.47	Blaine Tech
	3/15/2010	79.38	31.95	31.91	0.04	47.46	Blaine Tech
	5/24/2010	79.38	31.60	---	---	47.78	Blaine Tech
	5/28/2010	79.38	26.40	---	---	52.98	Blaine Tech
	6/22/2010	79.38	31.63	---	---	47.75	Blaine Tech
	7/12/2010	79.38	31.37	---	---	48.01	Blaine Tech
	10/4/2010	79.38	31.81	---	---	47.57	Blaine Tech
	1/10/2011	79.38	32.99	---	---	46.39	Blaine Tech
	4/11/2011	79.38	30.85	---	---	48.53	Blaine Tech
	7/11/2011	79.38	30.35	---	---	49.03	Blaine Tech
	10/10/2011	79.38	NM	---	---	NC	Blaine Tech
	1/9/2012	79.38	32.07	---	---	47.31	Blaine Tech
	4/16/2012	79.38	33.35	---	---	46.03	Blaine Tech
	7/9/2012	79.38	32.11	---	---	47.27	Blaine Tech
	10/15/2012	79.38	34.04	---	---	45.34	Blaine Tech
	1/14/2013	79.38	34.52	---	---	44.86	Blaine Tech
	4/8/2013	79.38	DRY	---	---	NC	Blaine Tech
	10/7/2013	79.38	DRY	---	---	NC	Blaine Tech
	4/25/2014	79.38	40.03	34.23	5.80	43.96	Blaine Tech
	5/6/2014	79.38	39.78	33.91	5.87	44.27	Nieto & Sons
	5/12/2014	79.38	37.02	34.64	2.38	44.25	Nieto & Sons
	5/20/2014	79.38	36.60	35.60	1.00	43.58	Nieto & Sons
	5/27/2014	79.38	36.12	35.45	0.67	43.79	Nieto & Sons
	6/4/2014	79.38	36.54	35.91	0.63	43.34	Nieto & Sons
	6/10/2014	79.38	37.02	35.38	1.64	43.66	Nieto & Sons
	7/3/2014	79.38	36.98	35.63	1.35	43.47	Nieto & Sons
	7/8/2014	79.38	36.78	35.34	1.44	43.74	Blaine Tech
	7/18/2014	79.38	35.88	35.55	0.33	43.76	Blaine Tech
	7/24/2014	79.38	35.98	35.42	0.56	43.85	Blaine Tech
	8/1/2014	79.38	35.57	35.30	0.27	44.02	Blaine Tech
	8/14/2014	79.38	35.42	35.23	0.19	44.11	Blaine Tech
	8/19/2014	79.38	35.36	35.21	0.15	44.14	Blaine Tech
	8/29/2014	79.38	35.32	35.20	0.12	44.16	Blaine Tech
	9/18/2014	79.38	35.55	35.30	0.25	44.03	Blaine Tech
	9/26/2014	79.38	35.56	35.30	0.26	44.03	Blaine Tech
	10/1/2014	79.38	35.56	35.24	0.32	44.07	Blaine Tech
	10/6/2014	79.38	35.48	35.22	0.26	44.11	Blaine Tech
	10/14/2014	79.38	35.33	35.20	0.13	44.15	Blaine Tech
	10/23/2014	79.38	35.51	35.22	0.29	44.10	Blaine Tech
	10/27/2014	79.38	35.54	35.25	0.29	44.07	Blaine Tech

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	11/18/2014	79.38	35.56	35.25	0.31	44.07	Blaine Tech
	11/25/2014	79.38	35.66	35.32	0.34	43.99	Blaine Tech
	12/12/2014	79.38	35.81	35.58	0.23	43.75	Blaine Tech
	12/19/2014	79.38	35.75	35.62	0.13	43.73	Blaine Tech
	4/20/2015	79.38	37.78	35.29	2.49	43.58	Blaine Tech
	5/19/2015	79.38	39.22	35.28	3.94	43.29	Northstar
	5/29/2015	79.38	37.10	35.80	1.30	43.31	Northstar
	6/5/2015	79.38	36.85	36.15	0.70	43.09	Northstar
	6/12/2015	79.38	36.55	36.15	0.40	43.15	Northstar
	6/19/2015	79.38	36.68	36.42	0.26	42.91	Northstar
	6/26/2015	79.38	37.23	36.96	0.27	42.36	Northstar
	10/19/2015	79.38	38.12	36.25	1.87	42.75	Blaine Tech
	11/17/2015	79.38	37.83	35.98	1.85	43.02	Kinder Morgan
	3/14/2016	79.38	40.80	---	---	38.58	Kinder Morgan
	4/11/2016	79.38	37.76	---	---	41.62	Blaine Tech
	6/29/2016	79.38	39.54	---	---	39.84	Blaine Tech
	8/22/2016	79.38	39.76	---	---	39.62	Blaine Tech
10/3/2016	79.38	41.05	---	---	38.33	Blaine Tech	
4/17/2017	79.38	36.67	---	---	42.71	Blaine Tech	
MW-SF-5	4/30/2007	79.74	29.54	---	---	50.20	Secor
	8/21/2007	79.74	28.36	---	---	51.38	Geomatrix
	8/28/2007	79.74	28.84	---	---	50.90	Stantec
	10/5/2007	79.74	29.50	---	---	50.24	Geomatrix
	11/2/2007	79.74	31.50	---	---	48.24	Geomatrix
	11/12/2007	79.74	29.93	---	---	49.81	Stantec
	12/21/2007	79.74	31.00	---	---	48.74	Geomatrix
	4/14/2008	79.74	30.20	---	---	49.54	Stantec
	8/11/2008	79.74	30.85	---	---	48.89	Stantec
	10/13/2008	79.74	30.93	---	---	48.81	Stantec
	4/20/2009	79.74	30.99	---	---	48.75	Blaine Tech
	10/19/2009	79.74	NM	---	---	NC	Blaine Tech
	5/24/2010	79.74	31.55	---	---	48.19	Blaine Tech
	5/28/2010	79.74	31.44	---	---	48.30	Blaine Tech
	6/22/2010	79.74	31.57	---	---	48.17	Blaine Tech
	10/4/2010	79.74	31.39	---	---	48.35	Blaine Tech
	1/10/2011	79.74	33.80	---	---	45.94	Blaine Tech
	4/11/2011	79.74	31.03	---	---	48.71	Blaine Tech
	7/11/2011	79.74	NM	---	---	NC	
	10/10/2011	79.74	31.28	---	---	48.46	Blaine Tech
	1/9/2012	79.74	32.12	---	---	47.62	Blaine Tech
	4/16/2012	79.74	33.30	---	---	46.44	Blaine Tech
	7/9/2012	79.74	34.45	---	---	45.29	Blaine Tech
	10/15/2012	79.74	33.28	---	---	46.46	Blaine Tech
	1/14/2013	79.74	33.37	---	---	46.37	Blaine Tech
	4/8/2013	79.74	34.28	---	---	45.46	Blaine Tech
	10/7/2013	79.74	34.58	---	---	45.16	Blaine Tech
4/14/2014	79.74	35.33	---	---	44.41	Blaine Tech	
10/27/2014	79.74	35.48	---	---	44.26	Blaine Tech	
4/20/2015	79.74	36.05	---	---	43.69	Blaine Tech	
10/19/2015	79.74	36.82	---	---	42.92	Blaine Tech	
3/14/2016	79.74	DRY	---	---	NC	Blaine Tech	
4/11/2016	79.74	DRY	---	---	NC	Blaine Tech	
6/29/2016	79.74	DRY	---	---	NC	Blaine Tech	
8/22/2016	79.74	DRY	---	---	NC	Blaine Tech	
10/3/2016	79.74	DRY	---	---	NC	Blaine Tech	
4/17/2017	79.74	36.88	---	---	42.86	Blaine Tech	
MW-SF-6	4/30/2007	79.96	27.44	27.20	0.24	52.71	Secor
	11/12/2007	79.96	27.14	---	---	52.82	Stantec
	8/12/2008	79.96	29.82	---	---	50.14	Envent
	10/17/2008	79.96	29.75	---	---	50.21	Envent
	12/18/2008	76.8	30.73	---	---	46.07	Envent

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	1/15/2009	76.8	31.35	---	---	45.45	Envent
	3/24/2009	76.80	30.50	---	---	46.30	Envent
	4/21/2009	76.80	28.45	---	---	48.35	Envent
	7/21/2009	76.80	27.22	---	---	49.58	Envent
	10/19/2009	76.80	NM	---	---	NC	Blaine Tech
	11/6/2009	76.80	29.10	---	---	47.70	Kinder Morgan
	12/9/2009	76.80	31.35	---	---	45.45	Kinder Morgan
	10/4/2010	76.80	29.09	---	---	47.71	Blaine Tech
	1/10/2011	76.80	30.87	---	---	45.93	Blaine Tech
	4/11/2011	76.80	28.16	---	---	48.64	Blaine Tech
	7/11/2011	76.80	NM	---	---	NC	
	10/10/2011	76.80	28.21	---	---	48.59	Blaine Tech
	1/9/2012	76.80	29.03	---	---	47.77	Blaine Tech
	4/16/2012	76.80	29.66	---	---	47.14	Blaine Tech
	7/9/2012	76.80	31.46	---	---	45.34	Blaine Tech
	10/15/2012	76.80	31.44	---	---	45.36	Blaine Tech
	1/14/2013	76.80	31.53	---	---	45.27	Blaine Tech
	4/8/2013	76.80	30.21	28.81	1.40	47.71	Blaine Tech
	10/7/2013	76.80	NM	---	---	NC	Blaine Tech
	11/14/2013	76.80	31.90	---	---	44.90	Blaine Tech
	4/18/2014	76.80	33.30	32.15	1.15	44.42	Blaine Tech
	8/8/2014	76.8	34.50	33.31	1.19	43.25	Blaine Tech
	8/13/2014	76.8	32.95	32.54	0.41	44.18	Blaine Tech
	8/19/2014	76.8	32.87	32.62	0.25	44.13	Blaine Tech
	8/29/2014	76.8	32.79	32.56	0.23	44.19	Blaine Tech
	9/5/2014	76.8	32.81	32.59	0.22	44.17	Blaine Tech
	9/18/2014	76.8	32.95	32.65	0.30	44.09	Blaine Tech
	9/26/2014	76.8	32.94	32.61	0.33	44.12	Blaine Tech
	10/1/2014	76.8	32.91	32.60	0.31	44.14	Blaine Tech
	10/6/2014	76.8	32.90	32.61	0.29	44.13	Blaine Tech
	10/14/2014	76.8	33.72	33.60	0.12	43.18	Blaine Tech
	10/23/2014	76.8	34.57	33.94	0.63	42.73	Blaine Tech
	10/27/2014	76.8	32.92	32.58	0.34	44.15	Blaine Tech
	11/18/2014	76.8	32.99	32.62	0.37	44.11	Blaine Tech
	11/25/2014	76.8	32.66	32.58	0.08	44.20	Blaine Tech
	12/12/2014	76.8	33.45	33.07	0.38	43.65	Blaine Tech
	12/19/2014	76.8	33.60	33.15	0.45	43.56	Blaine Tech
	4/20/2015	76.8	33.23	33.11	0.12	43.67	Blaine Tech
	10/21/2015	76.8	34.28	---	---	42.52	Kinder Morgan
	3/14/2016	76.8	38.10	38.08	0.02	38.72	Blaine Tech
	4/11/2016	76.8	35.83	---	---	40.97	Blaine Tech
	6/29/2016	76.8	36.89	---	---	39.91	Blaine Tech
	8/22/2016	76.8	37.11	---	---	39.69	Blaine Tech
	10/3/2016	76.8	38.45	---	---	38.35	Blaine Tech
	4/17/2017	76.8	34.03	---	---	42.77	Blaine Tech
MW-SF-9	4/30/2007	74.1	22.66	---	---	51.44	Secor
	8/14/2007	74.1	28.73	28.61	0.12	45.47	Geomatrix
	8/21/2007	74.1	26.55	---	---	47.55	Geomatrix
	8/28/2007	74.1	20.55	---	---	53.55	Stantec
	9/11/2007	74.1	19.40	---	---	54.70	Geomatrix
	10/5/2007	74.1	26.84	---	---	47.26	Geomatrix
	11/2/2007	74.1	22.76	---	---	51.34	Geomatrix
	11/12/2007	74.1	22.96	---	---	51.14	Stantec
	12/21/2007	74.1	24.05	---	---	50.05	Geomatrix
	4/14/2008	74.1	24.23	---	---	49.87	Stantec
	10/13/2008	74.1	24.83	---	---	49.27	Stantec
	4/20/2009	74.10	25.27	---	---	48.83	Blaine Tech
	10/19/2009	74.10	26.45	---	---	47.65	Blaine Tech
	5/24/2010	74.10	25.80	---	---	48.30	Blaine Tech
	5/28/2010	74.10	25.66	---	---	48.44	Blaine Tech
	6/22/2010	74.10	25.84	---	---	48.26	Blaine Tech

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**  
*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/4/2010	74.10	26.10	---	---	48.00	Blaine Tech
	1/10/2011	74.10	27.41	---	---	46.69	Blaine Tech
	4/11/2011	74.10	24.16	---	---	49.94	Blaine Tech
	7/11/2011	74.10	NM	---	---	NC	
	10/10/2011	74.10	25.02	---	---	49.08	Blaine Tech
	1/9/2012	74.10	25.98	---	---	48.12	Blaine Tech
	4/16/2012	74.10	25.92	---	---	48.18	Blaine Tech
	7/9/2012	74.10	26.44	---	---	47.66	Blaine Tech
	10/15/2012	74.10	NM	---	---	NC	Blaine Tech
	4/8/2013	74.10	DRY	---	---	NC	Blaine Tech
	6/6/2013	74.10	28.53	---	---	45.57	Blaine Tech
	10/7/2013	74.10	28.95	---	---	45.15	Blaine Tech
	4/25/2014	74.10	34.75	27.95	6.80	44.89	Blaine Tech
	5/5/2014	74.10	37.81	31.76	6.05	41.22	Nieto & Sons
	5/12/2014	74.10	32.32	29.11	3.21	44.40	Nieto & Sons
	5/20/2014	74.10	30.75	29.95	0.80	44.00	Nieto & Sons
	5/27/2014	74.1	38.08	32.32	5.76	40.71	Nieto & Sons
	6/4/2014	74.1	32.19	28.61	3.58	44.83	Nieto & Sons
	6/10/2014	74.1	36.27	28.85	7.42	43.88	Nieto & Sons
	7/3/2014	74.1	39.26	32.59	6.67	40.28	Nieto & Sons
	7/8/2014	74.1	36.40	28.60	7.80	44.06	Blaine Tech
	7/18/2014	74.1	31.04	29.66	1.38	44.18	Blaine Tech
	7/24/2014	74.1	31.15	29.85	1.30	44.01	Blaine Tech
	8/1/2014	74.1	30.25	29.85	0.40	44.18	Blaine Tech
	8/14/2014	74.1	30.13	29.82	0.31	44.22	Blaine Tech
	8/19/2014	74.1	30.08	29.85	0.23	44.21	Blaine Tech
	8/29/2014	74.1	30.10	29.81	0.29	44.24	Blaine Tech
	9/5/2014	74.1	30.13	29.84	0.29	44.21	Blaine Tech
	9/11/2014	74.1	29.49	28.47	1.02	45.44	Blaine Tech
	9/18/2014	74.1	30.29	29.90	0.39	44.13	Blaine Tech
	9/26/2014	74.1	30.25	29.84	0.41	44.18	Blaine Tech
	10/1/2014	74.1	30.24	29.84	0.40	44.19	Blaine Tech
	10/6/2014	74.1	30.24	29.83	0.41	44.19	Blaine Tech
	10/14/2014	74.1	30.12	29.81	0.31	44.23	Blaine Tech
	10/23/2014	74.1	30.27	29.85	0.42	44.17	Blaine Tech
	10/27/2014	74.1	30.29	29.89	0.40	44.14	Blaine Tech
	11/18/2014	74.1	30.35	29.86	0.49	44.15	Blaine Tech
	11/25/2014	74.1	30.42	29.91	0.51	44.10	Blaine Tech
	12/12/2014	74.1	30.65	30.10	0.55	43.90	Blaine Tech
	12/19/2014	74.1	30.80	30.13	0.67	43.85	Blaine Tech
	4/20/2015	74.1	36.69	27.67	9.02	44.76	Blaine Tech
	5/19/2015	74.1	35.68	26.83	8.85	45.63	Blaine Tech
	5/21/2015	74.1	32.50	27.31	5.19	45.83	Northstar
	5/29/2015	74.1	32.95	30.10	2.85	43.47	Northstar
	6/2/2015	74.1	31.67	30.45	1.22	43.42	Northstar
	6/5/2015	74.10	31.85	30.60	1.25	43.27	Northstar
	6/12/2015	74.10	31.28	30.75	0.53	43.25	Northstar
	6/19/2015	74.10	31.30	31.00	0.30	43.04	Northstar
	6/26/2015	74.10	31.20	29.50	1.70	44.29	Northstar
	8/11/2015	74.10	36.90	29.90	7.00	42.90	Northstar
	8/18/2015	74.10	35.19	30.25	4.94	42.94	Northstar
	8/28/2015	74.10	31.60	30.75	0.85	43.19	Kinder Morgan
	9/1/2015	74.10	31.78	30.90	0.88	43.04	Kinder Morgan
	10/16/2015	74.10	31.60	31.09	0.51	42.92	Blaine Tech
	10/19/2015	74.10	31.44	31.04	0.40	42.99	Kinder Morgan
	10/30/2015	74.10	32.60	32.06	0.54	41.94	Kinder Morgan
	11/17/2015	74.10	31.71	31.68	0.03	42.41	Kinder Morgan
	3/14/2016	74.10	34.14	---	---	39.96	Blaine Tech
	4/11/2016	74.10	32.89	---	---	41.21	Blaine Tech
	6/29/2016	74.10	34.00	---	---	40.10	Blaine Tech
MW-SF-10	10/17/2008	76.53	27.49	---	---	49.04	Envent

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/19/2009	76.53	28.61	---	---	47.92	Blaine Tech
	10/4/2010	76.53	28.50	28.36	0.14	48.14	Blaine Tech
	4/11/2011	76.53	27.41	27.37	0.04	49.15	Blaine Tech
	10/10/2011	76.53	27.60	---	---	48.93	Blaine Tech
	4/16/2012	76.53	28.81	---	---	47.72	Blaine Tech
	7/9/2012	76.53	NM	---	---	NC	Blaine Tech
	10/15/2012	76.53	29.27	---	---	47.26	Blaine Tech
	4/8/2013	76.53	DRY	---	---	NC	Blaine Tech
	10/7/2013	76.53	DRY	---	---	NC	Blaine Tech
	4/14/2014	76.53	DRY	---	---	NC	Blaine Tech
	10/27/2014	76.53	DRY	---	---	NC	Blaine Tech
	4/20/2015	76.53	DRY	---	---	NC	Blaine Tech
	10/19/2015	76.53	DRY	---	---	NC	Blaine Tech
	3/14/2016	76.53	DRY	---	---	NC	Blaine Tech
	4/11/2016	76.53	DRY	---	---	NC	Blaine Tech
	6/29/2016	76.53	DRY	---	---	NC	Blaine Tech
	8/22/2016	76.53	DRY	---	---	NC	Blaine Tech
	10/3/2016	76.53	DRY	---	---	NC	Blaine Tech
	4/17/2017	76.53	DRY	---	---	NC	Blaine Tech
MW-SF-11	8/14/2007	78.56	28.58	28.30	0.28	50.20	Geomatrix
	8/21/2007	78.56	28.76	28.63	0.13	49.90	Geomatrix
	8/28/2007	78.56	28.22	---	---	50.34	Stantec
	9/11/2007	78.56	26.90	---	---	51.66	Geomatrix
	10/5/2007	78.56	28.43	---	---	50.13	Geomatrix
	11/2/2007	78.56	29.48	29.38	0.10	49.16	Geomatrix
	11/12/2007	78.56	29.03	---	---	49.53	Stantec
	8/15/2008	78.56	30.13	---	---	48.43	Envent
	10/17/2008	78.56	30.50	---	---	48.06	Envent
	12/18/2008	78.56	29.92	---	---	48.64	Envent
	1/15/2009	78.56	30.32	---	---	48.24	Envent
	3/24/2009	78.56	31.05	---	---	47.51	Envent
	4/21/2009	78.56	30.03	---	---	48.53	Envent
	7/21/2009	78.56	30.89	---	---	47.67	Envent
	10/19/2009	78.56	NM	---	---	NC	Blaine Tech
	11/9/2009	78.56	31.00	---	---	47.56	Kinder Morgan
	9/3/2010	78.56	31.22	---	---	47.34	Kinder Morgan
	10/4/2010	78.56	30.94	---	---	47.62	Blaine Tech
	4/12/2011	78.56	30.82	---	---	47.74	Blaine Tech
	10/10/2011	78.56	30.10	---	---	48.46	Blaine Tech
	4/16/2012	78.56	NM	---	---	NC	Blaine Tech
	7/9/2012	78.56	NM	---	---	NC	Blaine Tech
	10/15/2012	78.56	33.28	---	---	45.28	Blaine Tech
	4/8/2013	78.56	33.11	---	---	45.45	Blaine Tech
	10/7/2013	78.56	33.91	---	---	44.65	Blaine Tech
	4/14/2014	78.56	35.20	34.95	0.25	43.56	Blaine Tech
	5/5/2014	78.56	36.52	33.71	2.81	44.29	Nieto & Sons
	5/12/2014	78.56	35.45	33.87	1.58	44.37	Nieto & Sons
	5/27/2014	78.56	35.38	34.65	0.73	43.76	Nieto & Sons
	6/4/2014	78.56	35.40	35.32	0.08	43.22	Nieto & Sons
	8/8/2014	78.56	36.22	33.11	3.11	44.83	Blaine Tech
	8/13/2014	78.56	36.22	33.47	2.75	44.54	Blaine Tech
	8/19/2014	78.56	36.46	33.94	2.52	44.12	Blaine Tech
	8/29/2014	78.56	36.68	33.83	2.85	44.16	Blaine Tech
	9/5/2014	78.56	36.62	33.80	2.82	44.20	Blaine Tech
	9/11/2014	78.56	37.15	33.78	3.37	44.11	Blaine Tech
	9/18/2014	78.56	36.79	33.93	2.86	44.06	Blaine Tech
	9/26/2014	78.56	36.89	33.88	3.01	44.08	Blaine Tech
	10/1/2014	78.56	34.95	33.32	1.63	44.91	Blaine Tech
	10/6/2014	78.56	36.36	33.95	2.41	44.13	Blaine Tech
	10/14/2014	78.56	36.67	33.86	2.81	44.14	Blaine Tech
	10/23/2014	78.56	36.86	33.86	3.00	44.10	Blaine Tech

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/27/2014	78.56	36.20	33.99	2.21	44.13	Blaine Tech
	11/3/2014	78.56	36.91	33.84	3.07	44.11	Blaine Tech
	11/18/2014	78.56	36.78	33.95	2.83	44.04	Blaine Tech
	11/25/2014	78.56	36.65	34.03	2.62	44.01	Blaine Tech
	12/3/2014	78.56	36.71	33.94	2.77	44.07	Blaine Tech
	12/12/2014	78.56	37.29	34.08	3.21	43.84	Blaine Tech
	12/19/2014	78.56	38.03	34.04	3.99	43.72	Blaine Tech
	3/17/2015	78.56	35.94	35.50	0.44	42.97	Kinder Morgan
	4/20/2015	78.56	38.89	34.86	4.03	42.89	Kinder Morgan
	10/20/2015	78.56	37.42	35.38	2.04	42.77	Kinder Morgan
	3/16/2016	78.56	39.56	---	---	39.00	Kinder Morgan
	4/11/2016	78.56	37.62	---	---	40.94	Blaine Tech
	6/29/2016	78.56	37.06	---	---	41.50	Blaine Tech
	8/22/2016	78.56	39.25	---	---	39.31	Blaine Tech
	10/3/2016	78.56	40.05	---	---	38.51	Blaine Tech
	3/10/2017	78.56	36.56	---	---	42.00	CH2M
	4/17/2017	78.56	35.91	---	---	42.65	Blaine Tech
MW-SF-12	8/14/2007	78.07	27.76	---	---	50.31	Geomatrix
	8/21/2007	78.07	27.43	---	---	50.64	Geomatrix
	8/28/2007	78.07	27.58	---	---	50.49	Stantec
	9/11/2007	78.07	27.73	---	---	50.34	Geomatrix
	10/5/2007	78.07	28.06	---	---	50.01	Geomatrix
	11/2/2007	78.07	29.59	---	---	48.48	Geomatrix
	11/12/2007	78.07	28.33	---	---	49.74	Stantec
	8/12/2008	78.07	30.02	---	---	48.05	Envent
	10/17/2008	78.07	30.42	---	---	47.65	Envent
	12/18/2008	78.07	31.55	---	---	46.52	Envent
	1/15/2009	78.07	30.11	---	---	47.96	Envent
	3/24/2009	78.07	29.41	---	---	48.66	Envent
	4/21/2009	78.07	29.52	---	---	48.55	Envent
	7/21/2009	78.07	28.58	---	---	49.49	Envent
	10/19/2009	78.07	NM	---	---	NC	Blaine Tech
	11/4/2009	78.07	30.36	---	---	47.71	Kinder Morgan
	2/4/2010	78.07	29.20	---	---	48.87	Kinder Morgan
	10/4/2010	78.07	30.70	---	---	47.37	Blaine Tech
	4/11/2011	78.07	29.47	---	---	48.60	Blaine Tech
	10/10/2011	78.07	26.60	---	---	51.47	Blaine Tech
	4/16/2012	78.07	31.40	---	---	46.67	Blaine Tech
	7/9/2012	78.07	NM	---	---	NC	Blaine Tech
	10/15/2012	78.07	32.12	---	---	45.95	Blaine Tech
	4/8/2013	78.07	DRY	---	---	NC	Blaine Tech
	10/7/2013	78.07	NM	---	---	NC	Blaine Tech
	4/14/2014	78.07	38.04	32.67	5.37	44.33	Blaine Tech
	5/20/2014	78.07	37.80	32.90	4.90	44.19	Nieto & Sons
	5/27/2014	78.07	33.27	---	---	44.80	Nieto & Sons
	6/4/2014	78.07	32.78	---	---	45.29	Nieto & Sons
	6/10/2014	78.07	33.76	---	---	44.31	Nieto & Sons
	7/3/2014	78.07	NM	33.58	---	NC	Nieto & Sons
	7/24/2014	78.07	NM	33.35	3.97	NC	Blaine Tech
	8/1/2014	78.07	37.20	33.17	4.03	44.09	Blaine Tech
	9/5/2014	78.07	38.52	32.93	5.59	44.02	Blaine Tech
	9/11/2014	78.07	38.56	32.98	5.58	43.97	Blaine Tech
	9/18/2014	78.07	38.25	33.09	5.16	43.95	Blaine Tech
	9/26/2014	78.07	38.03	33.03	5.00	44.04	Blaine Tech
	10/1/2014	78.07	37.82	33.08	4.74	44.04	Blaine Tech
	10/6/2014	78.07	37.63	33.07	4.56	44.09	Blaine Tech
	10/14/2014	78.07	37.56	33.13	4.43	44.05	Blaine Tech
	10/23/2014	78.07	37.56	33.06	4.50	44.11	Blaine Tech
	10/27/2014	78.07	37.40	33.08	4.32	44.13	Blaine Tech
	11/3/2014	78.07	37.48	33.09	4.39	44.10	Blaine Tech
	11/18/2014	78.07	37.44	33.15	4.29	44.06	Blaine Tech

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	11/25/2014	78.07	37.35	33.21	4.14	44.03	Blaine Tech
	12/3/2014	78.07	37.31	33.12	4.19	44.11	Blaine Tech
	12/12/2014	78.07	37.92	33.45	4.47	43.73	Blaine Tech
	12/19/2014	78.07	38.25	33.50	4.75	43.62	Blaine Tech
	3/17/2015	78.07	36.42	34.05	2.37	43.55	Kinder Morgan
	4/20/2015	78.07	36.42	34.05	2.37	43.55	Blaine Tech
	10/20/2015	78.07	36.78	34.84	1.94	42.84	Kinder Morgan
	3/16/2016	78.07	39.03	---	---	39.04	Kinder Morgan
	4/11/2016	78.07	37.13	---	---	40.94	Blaine Tech
	6/29/2016	78.07	38.34	38.28	0.06	39.78	Blaine Tech
	8/22/2016	78.07	38.60	---	---	39.47	Blaine Tech
	10/3/2016	78.07	39.45	---	---	38.62	Blaine Tech
	3/10/2017	78.07	36.09	---	---	41.98	CH2M
	4/17/2017	78.07	35.12	---	---	42.95	Blaine Tech
MW-SF-13	8/14/2007	73.40	22.98	---	---	50.42	Geomatrix
	8/21/2007	73.40	23.11	---	---	50.29	Geomatrix
	8/28/2007	73.40	22.85	---	---	50.55	Stantec
	9/11/2007	73.40	23.10	---	---	50.30	Geomatrix
	10/5/2007	73.40	28.11	---	---	45.29	Geomatrix
	11/2/2007	73.40	25.43	25.41	0.02	47.99	Geomatrix
	11/12/2007	73.40	23.70	---	---	49.70	Stantec
	12/21/2007	73.40	24.45	24.42	0.03	48.97	Geomatrix
	8/15/2008	73.40	27.38	24.11	3.27	48.47	Envent
	10/17/2008	73.40	27.28	24.33	2.95	48.33	Envent
	10/21/2008	73.40	27.14	24.26	2.88	48.42	Envent
	12/17/2008	73.40	26.21	24.70	1.51	48.32	Envent
	1/15/2009	73.40	26.90	24.80	2.10	48.08	Envent
	3/27/2009	73.40	26.46	25.49	0.97	47.67	Envent
	4/21/2009	73.40	24.86	24.78	0.08	48.60	Envent
	7/21/2009	73.40	25.72	25.48	0.24	47.86	Envent
	10/19/2009	73.40	NM	---	---	NC	Blaine Tech
	11/6/2009	73.40	25.72	---	---	47.68	Kinder Morgan
	2/4/2010	73.40	25.43	25.30	0.13	48.07	Kinder Morgan
	9/3/2010	73.40	27.40	25.71	1.69	47.27	Kinder Morgan
	10/4/2010	73.40	26.95	25.92	1.03	47.22	Blaine Tech
	4/12/2011	73.40	24.79	24.78	0.01	48.62	Blaine Tech
	10/10/2011	73.40	26.00	---	---	47.40	Blaine Tech
	4/16/2012	73.40	27.19	---	---	46.21	Blaine Tech
	7/9/2012	73.40	NM	---	---	NC	Blaine Tech
	10/15/2012	73.40	27.01	---	---	46.39	Blaine Tech
	4/8/2013	73.40	27.90	---	---	45.50	Blaine Tech
	10/7/2013	73.40	NM	---	---	NC	Blaine Tech
	11/14/2013	73.40	29.95	28.25	1.70	44.73	Blaine Tech
	4/14/2014	73.40	31.36	28.47	2.89	44.21	Blaine Tech
	5/5/2014	73.40	31.62	28.49	3.13	44.13	Nieto & Sons
	5/12/2014	73.40	30.02	28.88	1.14	44.24	Nieto & Sons
	5/20/2014	73.40	31.10	29.77	1.33	43.30	Nieto & Sons
	5/27/2014	73.40	30.17	29.48	0.69	43.75	Nieto & Sons
	6/4/2014	73.40	30.22	---	---	43.18	Nieto & Sons
	6/10/2014	73.40	30.20	29.76	0.44	43.53	Nieto & Sons
	7/3/2014	73.40	30.49	29.88	0.61	43.37	Nieto & Sons
	7/24/2014	73.40	30.50	29.54	0.96	43.62	Blaine Tech
	8/1/2014	73.40	29.82	29.25	0.57	44.01	Blaine Tech
	8/8/2014	73.40	34.07	33.71	0.36	39.60	Blaine Tech
	8/14/2014	73.40	29.96	29.13	0.83	44.06	Blaine Tech
	8/19/2014	73.40	29.91	29.15	0.76	44.06	Blaine Tech
	8/29/2014	73.40	30.15	29.02	1.13	44.10	Blaine Tech
	9/5/2014	73.40	30.19	29.08	1.11	44.04	Blaine Tech
	9/11/2014	73.40	30.66	28.91	1.75	44.05	Blaine Tech
	9/18/2014	73.40	30.41	29.15	1.26	43.94	Blaine Tech
	9/26/2014	73.40	30.18	29.14	1.04	44.00	Blaine Tech



**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/1/2014	73.40	30.38	29.05	1.33	44.02	Blaine Tech
	10/6/2014	73.40	30.10	29.12	0.98	44.04	Blaine Tech
	10/13/2014	73.40	30.28	29.07	1.21	44.03	Blaine Tech
	10/23/2014	73.40	30.72	28.95	1.77	44.01	Blaine Tech
	10/27/2014	73.40	30.21	29.06	1.15	44.05	Blaine Tech
	11/3/2014	73.40	30.62	28.93	1.69	44.05	Blaine Tech
	11/18/2014	73.40	30.54	29.11	1.43	43.93	Blaine Tech
	11/25/2014	73.40	29.48	29.14	0.34	44.18	Blaine Tech
	12/3/2014	73.40	31.02	28.93	2.09	43.95	Blaine Tech
	12/12/2014	73.40	31.05	29.40	1.65	43.59	Blaine Tech
	12/19/2014	73.40	31.11	29.40	1.71	43.57	Blaine Tech
	4/20/2015	73.40	32.44	29.04	3.40	43.51	Blaine Tech
	10/19/2015	73.40	35.16	29.31	5.85	42.63	Blaine Tech
	3/14/2016	73.40	34.72	---	---	38.68	Blaine Tech
	4/11/2016	73.40	32.28	---	---	41.12	Blaine Tech
	6/29/2016	73.40	33.62	---	---	39.78	Blaine Tech
	8/22/2016	73.40	33.66	---	---	39.74	Blaine Tech
	10/3/2016	73.40	34.20	---	---	39.20	Blaine Tech
	3/24/2017	73.40	31.25	---	---	42.15	CH2M
	4/17/2017	73.40	30.40	---	---	43.00	Blaine Tech
MW-SF-14	8/14/2007	78.16	27.68	---	---	50.48	Geomatrix
	8/21/2007	78.16	27.60	---	---	50.56	Geomatrix
	8/28/2007	78.16	27.53	---	---	50.63	Stantec
	9/11/2007	78.16	27.66	---	---	50.50	Geomatrix
	10/5/2007	78.16	27.75	---	---	50.41	Geomatrix
	11/2/2007	78.16	29.83	---	---	48.33	Geomatrix
	11/12/2007	78.16	NM	---	---	NC	Secor
	8/15/2008	78.16	29.77	29.24	0.53	48.81	Envent
	10/17/2008	78.16	29.52	29.50	0.02	48.66	Envent
	12/18/2008	78.16	30.62	---	---	47.54	Envent
	1/15/2009	78.16	30.08	---	---	48.08	Envent
	3/24/2009	78.16	29.73	---	---	48.43	Envent
	4/21/2009	78.16	29.61	---	---	48.55	Envent
	7/21/2009	78.16	29.20	---	---	48.96	Envent
	10/19/2009	78.16	NM	---	---	NC	Blaine Tech
	11/6/2009	78.16	30.48	---	---	47.68	Kinder Morgan
	12/9/2009	78.16	30.68	---	---	47.48	Kinder Morgan
	6/22/2010	78.16	26.17	---	---	51.99	Blaine Tech
	10/4/2010	78.16	30.54	---	---	47.62	Blaine Tech
	4/12/2011	78.16	29.55	---	---	48.61	Blaine Tech
	10/10/2011	78.16	29.84	---	---	48.32	Blaine Tech
	4/16/2012	78.16	NM	---	---	NC	Blaine Tech
	7/9/2012	78.16	NM	---	---	NC	Blaine Tech
	10/15/2012	78.16	30.02	---	---	48.14	Blaine Tech
	4/8/2013	78.16	32.75	---	---	45.41	Blaine Tech
	5/24/2013	78.16	32.75	---	---	45.41	Blaine Tech
	9/26/2013	78.16	34.50	34.25	0.25	43.86	Blaine Tech
	10/7/2013	78.16	NM	---	---	NC	Blaine Tech
	11/14/2013	78.16	33.57	33.19	0.38	44.89	Blaine Tech
	4/14/2014	78.16	34.81	33.56	1.25	44.35	Blaine Tech
	8/8/2014	78.16	34.24	33.98	0.26	44.13	Blaine Tech
	10/14/2014	78.16	34.36	33.80	0.56	44.25	Blaine Tech
	10/23/2014	78.16	34.49	34.43	0.06	43.72	Blaine Tech
	10/27/2014	78.16	34.40	33.97	0.43	44.10	Blaine Tech
	11/18/2014	78.16	34.27	34.07	0.20	44.05	Blaine Tech
	4/20/2015	78.16	34.48	---	---	43.68	Blaine Tech
	10/21/2015	78.16	35.25	---	---	42.91	Blaine Tech
	3/14/2016	78.16	36.21	---	---	41.95	Blaine Tech
	4/11/2016	78.16	37.14	---	---	41.02	Blaine Tech
	6/29/2016	78.16	37.36	---	---	40.80	Blaine Tech
	8/22/2016	78.16	DRY	---	---	NC	Blaine Tech

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/3/2016	78.16	DRY	---	---	NC	Blaine Tech
	4/17/2017	78.16	35.40	---	---	42.76	Blaine Tech
MW-SF-15	8/14/2007	78.27	27.78	27.75	0.03	50.51	Geomatrix
	8/21/2007	78.27	27.69	27.65	0.04	50.61	Geomatrix
	8/28/2007	78.27	27.65	27.61	0.04	50.65	Stantec
	9/11/2007	78.27	27.62	---	---	50.65	Geomatrix
	10/5/2007	78.27	28.15	---	---	50.12	Geomatrix
	11/2/2007	78.27	30.45	30.20	0.25	48.02	Geomatrix
	11/12/2007	78.27	28.75	---	---	49.52	Stantec
	8/15/2008	78.27	30.12	29.35	0.77	48.77	Envent
	10/17/2008	78.27	30.80	29.44	1.36	48.56	Envent
	10/21/2008	78.27	30.80	29.31	1.49	48.66	Envent
	12/18/2008	78.27	32.11	30.56	1.55	47.40	Envent
	1/15/2009	78.27	31.75	29.70	2.05	48.16	Envent
	3/24/2009	78.27	30.32	29.93	0.39	48.26	Envent
	4/21/2009	78.27	29.96	29.60	0.36	48.60	Envent
	7/21/2009	78.27	30.45	---	---	47.82	Envent
	10/19/2009	78.27	NM	---	---	NC	Blaine Tech
	11/4/2009	78.27	31.10	30.45	0.36	47.46	Kinder Morgan
	12/9/2009	78.27	30.87	---	---	47.40	Kinder Morgan
	10/4/2010	78.27	30.66	30.65	0.01	47.62	Blaine Tech
	4/12/2011	78.27	30.50	29.40	1.10	48.65	Blaine Tech
	10/10/2011	78.27	29.60	---	---	48.67	Blaine Tech
	12/2/2011	78.27	31.40	30.05	1.35	47.95	Blaine Tech
	4/16/2012	78.27	32.48	32.39	0.09	45.86	Blaine Tech
	7/9/2012	78.27	NM	---	---	NC	Blaine Tech
	10/15/2012	78.16	33.04	---	---	45.12	Blaine Tech
	4/8/2013	78.27	33.90	---	---	44.37	Blaine Tech
	5/24/2013	78.27	33.90	---	---	44.37	Blaine Tech
	10/7/2013	78.27	NM	---	---	NC	Blaine Tech
	11/14/2013	78.27	33.41	33.38	0.03	44.88	Blaine Tech
	4/18/2014	78.27	33.85	---	---	44.42	Blaine Tech
	8/8/2014	78.27	34.87	33.96	0.91	44.13	Blaine Tech
	8/13/2014	78.27	34.89	33.95	0.94	44.13	Blaine Tech
	8/19/2014	78.27	34.90	33.94	0.96	44.14	Blaine Tech
	8/29/2014	78.27	35.65	35.38	0.27	42.84	Blaine Tech
	10/27/2014	78.27	35.82	---	---	42.45	Blaine Tech
	4/20/2015	78.27	36.63	34.12	2.51	43.65	Blaine Tech
	10/19/2015	78.27	37.90	34.87	3.03	42.79	Blaine Tech
	11/17/2015	78.27	37.71	35.36	2.35	42.44	Kinder Morgan
	3/14/2016	78.27	39.70	---	---	38.57	Blaine Tech
	4/11/2016	78.27	37.24	---	---	41.03	Blaine Tech
	6/29/2016	78.27	38.70	---	---	39.57	Blaine Tech
	8/22/2016	78.27	38.78	---	---	39.49	Blaine Tech
	10/3/2016	78.27	39.56	---	---	38.71	Blaine Tech
	3/23/2017	78.27	36.10	---	---	42.17	CH2M
	4/17/2017	78.27	35.39	---	---	42.88	Blaine Tech
MW-SF-16	8/14/2007	78.21	27.68	---	---	50.53	Geomatrix
	8/21/2007	78.21	27.33	---	---	50.88	Geomatrix
	8/28/2007	78.21	27.51	---	---	50.70	Stantec
	9/11/2007	78.21	27.59	---	---	50.62	Geomatrix
	10/5/2007	78.21	28.10	---	---	50.11	Geomatrix
	11/2/2007	78.21	29.81	---	---	48.40	Geomatrix
	11/12/2007	78.21	28.40	---	---	49.81	Stantec
	8/15/2008	78.21	29.36	---	---	48.85	Envent
	10/17/2008	78.21	29.51	---	---	48.70	Envent
	12/18/2008	78.21	30.94	---	---	47.27	Envent
	1/15/2009	78.21	30.01	30.00	0.01	48.21	Envent
	3/24/2009	78.21	29.82	---	---	48.39	Envent
	4/21/2009	78.21	29.60	---	---	48.61	Envent
	7/21/2009	78.21	30.36	---	---	47.85	Envent

**Table 8. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells**

*SFPP Norwalk Pump Station, Norwalk, California*

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/19/2009	78.21	NM	---	---	NC	Blaine Tech
	11/4/2009	78.21	30.58	---	---	47.63	Kinder Morgan
	2/4/2010	78.21	30.36	---	---	47.85	Kinder Morgan
	9/3/2010	78.21	30.25	---	---	47.96	Kinder Morgan
	10/4/2010	78.21	30.49	---	---	47.72	Blaine Tech
	4/12/2011	78.21	29.52	---	---	48.69	Blaine Tech
	10/10/2011	78.21	29.85	---	---	48.36	Blaine Tech
	4/16/2012	78.21	NM	---	---	NC	Blaine Tech
	7/9/2012	78.21	NM	---	---	NC	Blaine Tech
	10/15/2012	78.21	32.47	---	---	45.74	Blaine Tech
	4/8/2013	78.21	32.97	32.73	0.24	45.43	Blaine Tech
	5/24/2013	78.21	32.97	32.73	0.24	45.43	Blaine Tech
	10/7/2013	78.21	NM	---	---	NC	Blaine Tech
	11/14/2013	78.21	33.80	33.21	0.59	44.88	Blaine Tech
	4/18/2014	78.21	34.20	33.65	0.55	44.45	Blaine Tech
	8/8/2014	78.21	34.06	34.05	0.01	44.16	Blaine Tech
	10/27/2014	78.21	34.25	---	---	43.96	Blaine Tech
	4/20/2015	78.21	34.52	---	---	43.69	Blaine Tech
	6/8/2015	78.21	35.17	35.00	0.17	43.18	Blaine Tech
	10/21/2015	78.21	34.56	---	---	43.65	Kinder Morgan
	3/14/2016	78.21	39.60	---	---	38.61	Blaine Tech
	4/11/2016	78.21	37.15	---	---	41.06	Blaine Tech
	6/29/2016	78.21	38.35	---	---	39.86	Blaine Tech
	8/22/2016	78.21	38.51	---	---	39.70	Blaine Tech
	10/3/2016	78.21	39.35	---	---	38.86	Blaine Tech
	4/17/2017	78.21	35.20	---	---	43.01	Blaine Tech

Notes:

Corrected groundwater elevations are based on specific gravity data collected during baildown testing, or a default value of 0.8 was used for wells not tested.

--- = not detected or not applicable

DRY = No measurable water observed in the well.

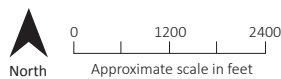
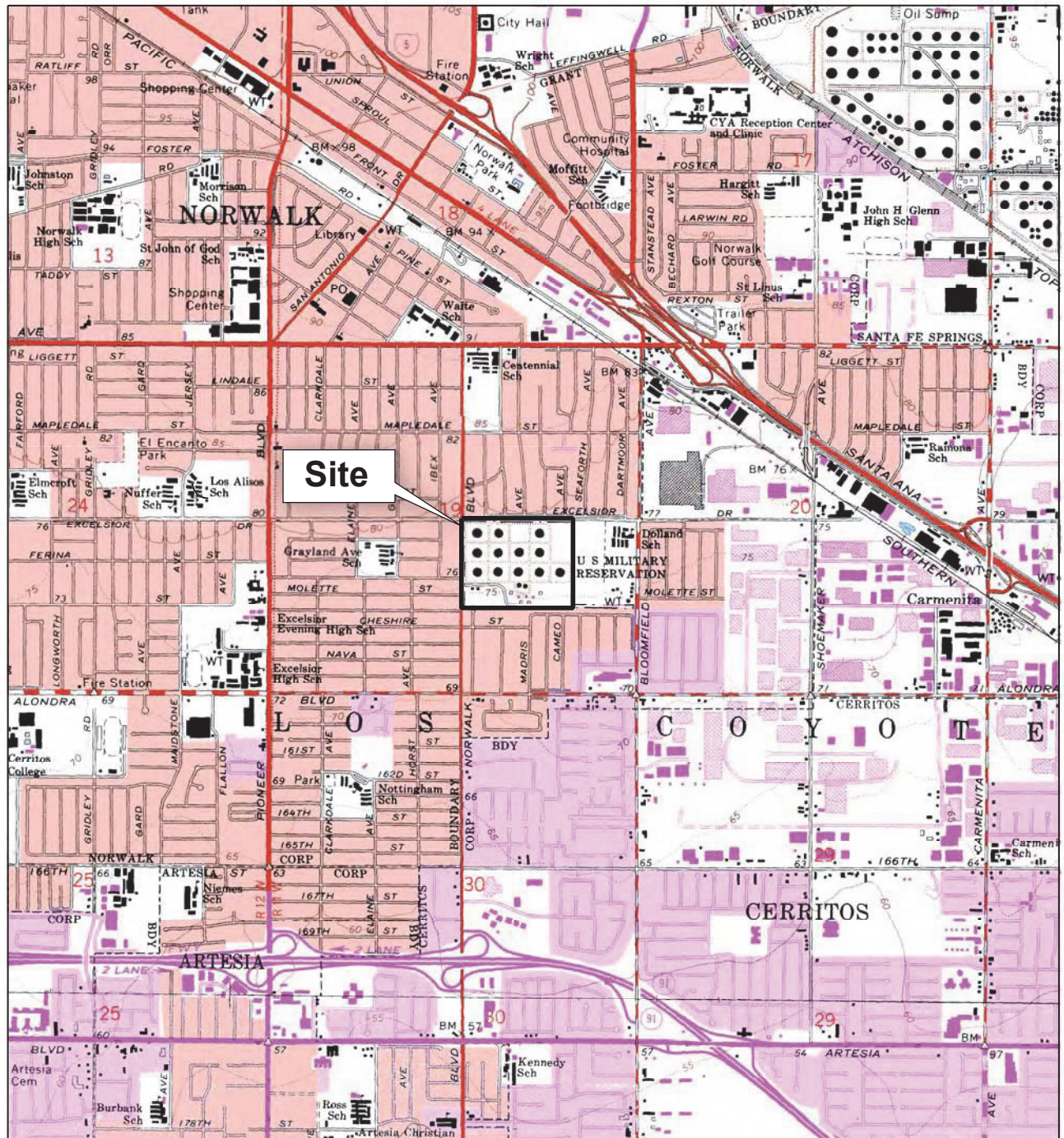
feet btoc = feet below top of casing

feet msl = feet above mean sea level based on National Geodetic Vertical Datum of 1929

NC = not calculated

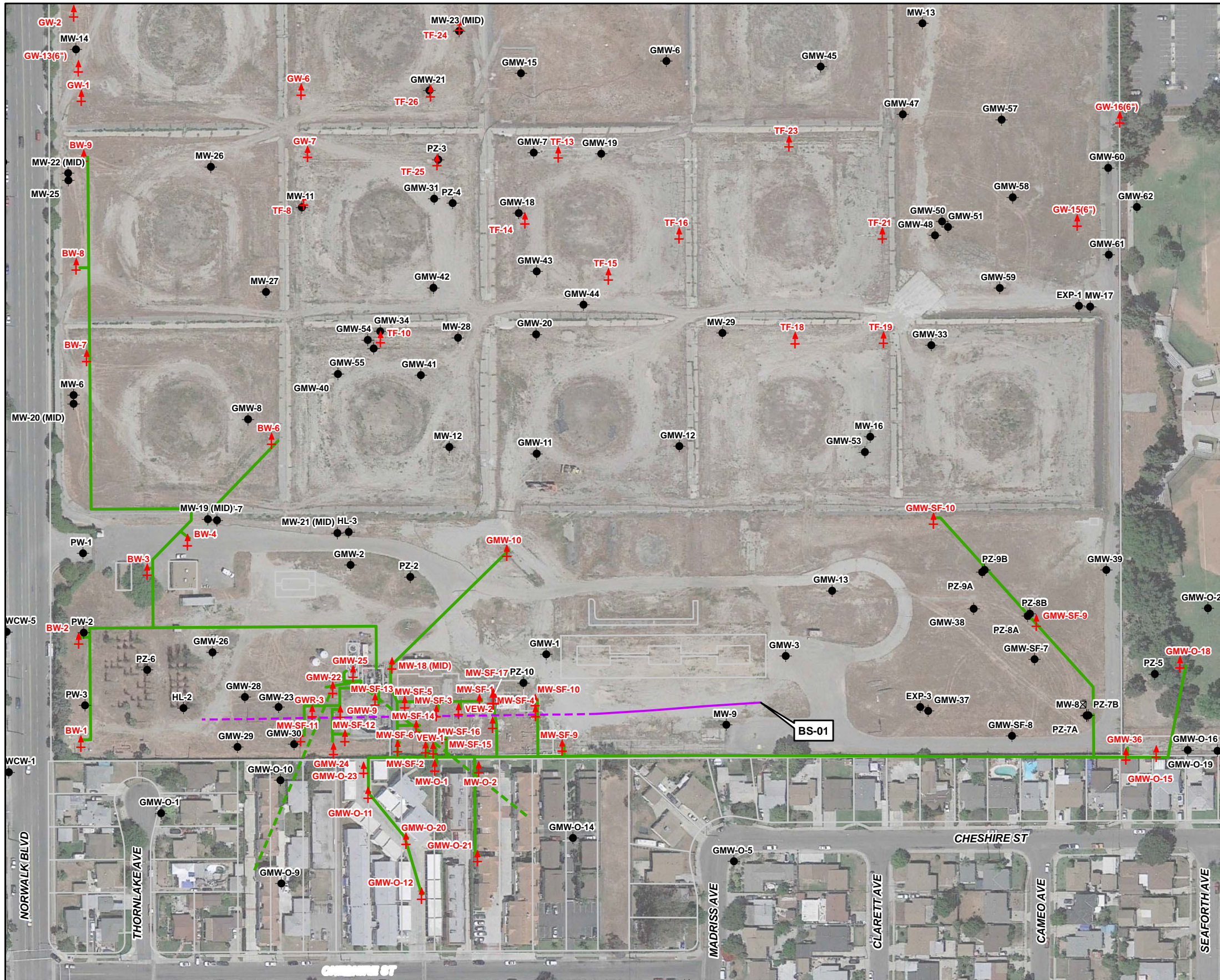
NM = not measured

Figures



**Figure 1**  
**Site Location Map**  
*SFP Norwalk Pump Station*  
*Norwalk, California*

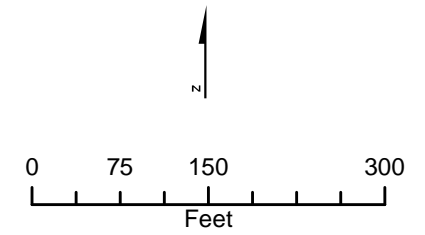
BASEMAP MODIFIED FROM U.S.G.S. 7.5 MINUTE QUADRANGLE MAP  
 LOS ALAMITOS 1964, CALIFORNIA. PHOTO-REVISED 1981.  
 WHITTIER 1965, CALIFORNIA. PHOTO-REVISED 1981.



**Legend**

- Existing Groundwater Monitoring Well
- ⊕ Existing Remediation Well
- Horizontal Biosparge Well  
(dashed line depicts approximate lateral extent of well screen)
- KMEP Remediation Piping Layout  
(above ground and below ground)
- - - Horizontal Vapor Extraction Well Piping

Imagery Source:  
Google Earth April 17, 2013.



**Figure 2**  
**Remediation System Layout**  
SFPP Norwalk Pump Station  
Norwalk, California

# Appendix A

## Laboratory Analytical Reports



June 19, 2017

CH2M HILL  
ATTN: Eric Davis  
1000 Wilshire Blvd., Suite 2100  
Los Angeles, CA 90017



ADE-1461  
EPA Methods TO3,  
TO14A, TO15 SIM & SCAN  
ASTM D1946



LA Cert #04140  
EPA Methods TO3, TO14A, TO15, 25C/3C,  
RSK-175

TX Cert T104704450-14-6  
EPA Methods TO14A, TO15

UT Cert CA0133332015-3  
EPA Methods TO3, TO14A, TO15, RSK-175

### LABORATORY TEST RESULTS

Project Reference: SFPP - Norwalk Site  
Lab Number: I060807-01/04

Enclosed are results for sample(s) received 6/08/17 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

#### Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Eric Davis and Vladimir Carino 6/19/17.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink that appears to read "Mark Johnson".

Mark Johnson  
Operations Manager  
MJohnson@AirTechLabs.com


Note: The cover letter is an integral part of this analytical report.




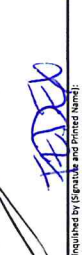
Air Technology Laboratories, Inc.  
 18501 Gate Ave. #130  
 City of Industry, CA 91748  
 Tel: 626-964-4032  
 Joann De La Ossa (JDeLaOssa@airtechlabs.com)

CHAIN OF CUSTODY RECORD  
 DATE: 6/17/17  
 PAGE: 1 of 1

FA00807-01 04

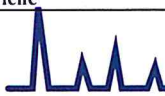
<b>Section A</b> Required Client Information: Company: <b>CH2M HILL</b> Attention: Eric Davis Address: 1000 Wilshire Blvd. Suite 2100 Los Angeles, CA 90017 Email To: <a href="mailto:eric.davis@ch2m.com">eric.davis@ch2m.com</a> <a href="mailto:jeanine@ch2m.com">jeanine@ch2m.com</a> Phone: 404-323-1600 Fax:	<b>Section B</b> Required Project Information: Report To: Eric Davis (eric.davis@ch2m.com) Copy To: Vladimir Carino (vcarino@ch2m.com) Purchase Order No.: Project Name: <b>SPPP Norwalk</b>	<b>Section C</b> Invoice Information: Attention: Eric Davis Company Name: CH2M Address: 1000 Wilshire Blvd. Suite 2100 Los Angeles, CA 90017 Project Manager: Joann De La Ossa	<b>Section D</b> Sampler Information: Sampler Name: James Dye Sampler Signature:  Sample Date: <u>6/17/17</u>
--	---	--	--

ITEM #	LOCATION / DESCRIPTION	MATRIX	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	CONTAINER TYPE		TOTAL # OF CONTAINERS	Analysis Test		Comments
						# OF CONTAINERS	PRESERVATIVE		TO-3 (Total VOCs as Hexane)	TO-15 (VOCs, Target Analytes)	
1	VEFF-06-07	Vapor	G	6/17/17	1300	1		1	X	X	Individually Certified 6-Liter SUMMA
2	VEFF-06-07 D	Vapor	G	6/17/17	1300	1		1	X	X	Individually Certified 6-Liter SUMMA
3	VPOST-06-07	Vapor	G	6/17/17	1400	1		1	X	X	Individually Certified 1-Liter SUMMA
4	VINF-06-07	Vapor	G	6/17/17	1400	1		1	X	X	Batch Certified 1-Liter Summa
5											Target analytes includes Historical VOCs and remaining ATU list per subcontract
6											
7											
8											
9											
10											
11											
12											

Retinquished by (Signature and Printed Name):  6/17/17 1430 Date / Time	Retinquished by (Signature and Printed Name): FED EX 6/17/17 1430 Date / Time	Retinquished by (Signature and Printed Name):  6/18/17 12:10 Date / Time
Turn Around Time (TAT): <input type="checkbox"/> A = Same Day <input type="checkbox"/> B = 24 Hours <input type="checkbox"/> C = 48 Hours <input type="checkbox"/> D = 72 Hours <input type="checkbox"/> E = 5 Workdays <input checked="" type="checkbox"/> E = 10 Workdays TAT Starts at 8 AM the following day if samples received after 3:00 PM.		
Special Instruction: Matrix: W = Water O = Oil Others/Specify: WW = Wastewater P = Product S = Soil		
Preservatives: H = HCl Z = Zn(Ac)2 Others/Specify:		
Container Types: T = Tube J = Jar M = Metal V = VOA B = Tedlar P = Plastic A = Amber G = Glass C = Can		

Client: CH2M Hill  
 Attn: Eric Davis  
 Project Name: SFPP Norwalk  
 Project No.: NA  
 Date Received: 06/08/17  
 Matrix: Air  
 Reporting Units: ppmv

EPA Method TO15												
Lab No.:	I060807-01			I060807-02			I060807-03			I060807-04		
Client Sample I.D.:	VEFF-06-07			VEFF-06-07D			VPOST-06-07			VINP-06-07		
Date/Time Sampled:	6/7/17 13:00			6/7/17 13:00			6/7/17 14:00			6/7/17 14:10		
Date/Time Analyzed:	6/14/17 23:33			6/15/17 0:14			6/15/17 3:40			6/15/17 4:21		
QC Batch No.:	170614MS2A1			170614MS2A1			170614MS2A1			170614MS2A1		
Analyst Initials:	DT			DT			DT			DT		
Dilution Factor:	2.1			2.1			52			42		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
Dichlorodifluoromethane (12)	ND	0.0021	0.00032	ND	0.0021	0.00032	ND	0.052	0.0079	ND	0.042	0.0065
Chloromethane	ND	0.0042	0.00046	ND	0.0042	0.00046	ND	0.10	0.011	ND	0.084	0.0093
1,2-CI-1,1,2,2-F ethane (114)	ND	0.0021	0.00042	ND	0.0021	0.00042	ND	0.052	0.010	ND	0.042	0.0085
Vinyl Chloride	ND	0.0021	0.00034	ND	0.0021	0.00034	ND	0.052	0.0084	ND	0.042	0.0068
Bromomethane	0.0012 J	0.0021	0.00062	0.00095 J	0.0021	0.00062	ND	0.052	0.015	ND	0.042	0.012
Chloroethane	ND	0.0021	0.0018	ND	0.0021	0.0018	ND	0.052	0.043	ND	0.042	0.035
Trichlorofluoromethane (11)	ND	0.0021	0.00045	ND	0.0021	0.00045	ND	0.052	0.011	ND	0.042	0.0091
1,1-Dichloroethene	ND	0.0021	0.00048	ND	0.0021	0.00048	ND	0.052	0.012	ND	0.042	0.0096
Carbon Disulfide	0.042	0.011	0.00050	0.0014 J	0.011	0.00050	ND	0.26	0.012	ND	0.21	0.010
1,1,2-CI 1,2,2-F ethane (113)	ND	0.0021	0.00057	ND	0.0021	0.00057	ND	0.052	0.014	ND	0.042	0.011
Acetone	0.023	0.011	0.00061	0.019	0.011	0.00061	0.14 J	0.26	0.015	ND	0.21	0.012
Methylene Chloride	ND	0.0021	0.00060	ND	0.0021	0.00060	ND	0.052	0.015	ND	0.042	0.012
t-1,2-Dichloroethene	ND	0.0021	0.00063	ND	0.0021	0.00063	ND	0.052	0.015	ND	0.042	0.013
1,1-Dichloroethane	ND	0.0021	0.00029	ND	0.0021	0.00029	0.0070 J	0.052	0.0070	ND	0.042	0.0057
c-1,2-Dichloroethene	ND	0.0021	0.00041	ND	0.0021	0.00041	ND	0.052	0.0100	ND	0.042	0.0081
2-Butanone	0.0074	0.0021	0.0013	0.0074	0.0021	0.0013	0.21	0.052	0.032	ND	0.042	0.026
t-Butyl Methyl Ether (MTBE)	ND	0.0021	0.00047	ND	0.0021	0.00047	ND	0.052	0.012	ND	0.042	0.0094
Chloroform	ND	0.0021	0.00029	ND	0.0021	0.00029	ND	0.052	0.0072	ND	0.042	0.0059
1,1,1-Trichloroethane	ND	0.0021	0.00021	ND	0.0021	0.00021	ND	0.052	0.0052	ND	0.042	0.0042
Carbon Tetrachloride	ND	0.0021	0.00037	ND	0.0021	0.00037	ND	0.052	0.0090	ND	0.042	0.0073
Benzene	0.0099	0.0021	0.00020	0.0096	0.0021	0.00020	1.1	0.052	0.0050	0.96	0.042	0.0040
1,2-Dichloroethane	ND	0.0021	0.00016	ND	0.0021	0.00016	0.021 J	0.052	0.0038	0.0075 J	0.042	0.0031
Trichloroethene	ND	0.0021	0.00030	ND	0.0021	0.00030	ND	0.052	0.0073	ND	0.042	0.0060
1,2-Dichloropropane	ND	0.0021	0.00038	ND	0.0021	0.00038	ND	0.052	0.0093	ND	0.042	0.0076
Bromodichloromethane	ND	0.0021	0.00013	ND	0.0021	0.00013	ND	0.052	0.0031	ND	0.042	0.0025
c-1,3-Dichloropropene	ND	0.0021	0.00025	ND	0.0021	0.00025	ND	0.052	0.0062	ND	0.042	0.0050
4-Methyl-2-Pentanone	ND	0.0021	0.00014	ND	0.0021	0.00014	ND	0.052	0.0035	ND	0.042	0.0028
Toluene	0.016	0.0021	0.00017	0.016	0.0021	0.00017	1.9	0.052	0.0041	1.2	0.042	0.0033
t-1,3-Dichloropropene	ND	0.0021	0.00022	ND	0.0021	0.00022	ND	0.052	0.0053	ND	0.042	0.0043
1,1,2-Trichloroethane	ND	0.0021	0.00034	ND	0.0021	0.00034	ND	0.052	0.0083	ND	0.042	0.0068
1,3-Dichloropropane	ND	0.0021	0.00010	ND	0.0021	0.00010	ND	0.052	0.0026	ND	0.042	0.0021
Tetrachloroethene	ND	0.0021	0.00025	ND	0.0021	0.00025	0.011 J	0.052	0.0062	ND	0.042	0.0051
2-Hexanone	ND	0.0021	0.00043	ND	0.0021	0.00043	ND	0.052	0.011	ND	0.042	0.0087
Dibromochloromethane	ND	0.0021	0.00038	ND	0.0021	0.00038	ND	0.052	0.0094	ND	0.042	0.0077
1,2-Dibromoethane	ND	0.0021	0.00019	ND	0.0021	0.00019	ND	0.052	0.0047	ND	0.042	0.0038
Chlorobenzene	ND	0.0021	0.00016	ND	0.0021	0.00016	ND	0.052	0.0040	ND	0.042	0.0033
Ethylbenzene	0.0026	0.0021	0.00012	0.0026	0.0021	0.00012	0.26	0.052	0.0030	0.22	0.042	0.0024
p,&m-Xylene	0.014	0.0021	0.00024	0.014	0.0021	0.00024	1.1	0.052	0.0058	0.82	0.042	0.0048
o-Xylene	0.0064	0.0021	0.00026	0.0061	0.0021	0.00026	0.46	0.052	0.0063	0.35	0.042	0.0051



Client: CH2M Hill  
 Attn: Eric Davis  
 Project Name: SFPP Norwalk  
 Project No.: NA  
 Date Received: 06/08/17  
 Matrix: Air  
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	I060807-01			I060807-02			I060807-03			I060807-04		
Client Sample I.D.:	VEFF-06-07			VEFF-06-07D			VPOST-06-07			VINP-06-07		
Date/Time Sampled:	6/7/17 13:00			6/7/17 13:00			6/7/17 14:00			6/7/17 14:10		
Date/Time Analyzed:	6/14/17 23:33			6/15/17 0:14			6/15/17 3:40			6/15/17 4:21		
QC Batch No.:	170614MS2A1			170614MS2A1			170614MS2A1			170614MS2A1		
Analyst Initials:	DT			DT			DT			DT		
Dilution Factor:	2.1			2.1			52			42		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
Styrene	ND	0.0021	0.00027	0.00047 J	0.0021	0.00027	0.039 J	0.052	0.0066	0.019 J	0.042	0.0054
Bromoform	ND	0.0021	0.00012	ND	0.0021	0.00012	ND	0.052	0.0029	ND	0.042	0.0023
Isopropyl benzene	0.00033 J	0.0021	0.00022	0.00032 J	0.0021	0.00022	0.019 J	0.052	0.0054	0.019 J	0.042	0.0044
1,1,2,2-Tetrachloroethane	ND	0.0042	0.00013	ND	0.0042	0.00013	ND	0.10	0.0032	ND	0.084	0.0026
Benzyl Chloride	ND	0.0021	0.00039	ND	0.0021	0.00039	ND	0.052	0.0095	ND	0.042	0.0077
1,2,3-Trichloropropane	ND	0.0021	0.00057	ND	0.0021	0.00057	ND	0.052	0.014	ND	0.042	0.011
n-Propyl Benzene	0.00046 J	0.0021	0.00012	0.00042 J	0.0021	0.00012	0.028 J	0.052	0.0030	0.023 J	0.042	0.0024
4-Ethyl Toluene	0.0033	0.0021	0.00013	0.0034	0.0021	0.00013	0.18	0.052	0.0033	0.13	0.042	0.0027
1,3,5-Trimethylbenzene	0.0016 J	0.0042	0.00036	0.0016 J	0.0042	0.00036	0.097 J	0.10	0.0089	0.069 J	0.084	0.0073
4-Chlorotoluene	ND	0.0021	0.00025	ND	0.0021	0.00025	ND	0.052	0.0061	ND	0.042	0.0050
tert-Butylbenzene	ND	0.0021	0.00019	0.00041 J	0.0021	0.00019	ND	0.052	0.0047	ND	0.042	0.0038
1,2,4-Trimethylbenzene	0.0025 J	0.0042	0.00024	0.0025 J	0.0042	0.00024	0.097 J	0.10	0.0059	0.067 J	0.084	0.0048
sec-Butylbenzene	ND	0.0021	0.00020	ND	0.0021	0.00020	ND	0.052	0.0050	0.0047 J	0.042	0.0041
p-Isopropyltoluene	0.0020 J	0.0021	0.00027	0.00039 J	0.0021	0.00027	0.034 J	0.052	0.0067	0.022 J	0.042	0.0055
1,3-Dichlorobenzene	ND	0.0021	0.00026	ND	0.0021	0.00026	ND	0.052	0.0063	ND	0.042	0.0051
1,4-Dichlorobenzene	ND	0.0021	0.00031	ND	0.0021	0.00031	ND	0.052	0.0075	0.0083 J	0.042	0.0061
n-Butylbenzene	0.00042 J	0.0021	0.00015	ND	0.0021	0.00015	0.0082 J	0.052	0.0038	0.0061 J	0.042	0.0031
1,2-Dichlorobenzene	ND	0.0021	0.00026	ND	0.0021	0.00026	ND	0.052	0.0064	ND	0.042	0.0052
1,2,4-Trichlorobenzene	ND	0.0042	0.00035	ND	0.0042	0.00035	ND	0.10	0.0085	ND	0.084	0.0070
Hexachlorobutadiene	0.00024 J	0.0021	0.00012	ND	0.0021	0.00012	ND	0.052	0.0030	ND	0.042	0.0025
t-Butanol	ND	0.011	0.00040	0.0023 J	0.011	0.00040	ND	0.26	0.0099	ND	0.21	0.0081
n-Hexane	0.049	0.011	0.00028	0.046	0.011	0.00028	7.1	0.26	0.0069	6.7	0.21	0.0057
Isopropyl ether	ND	0.011	0.00023	ND	0.011	0.00023	ND	0.26	0.0057	ND	0.21	0.0047
t-Butyl ethyl ether	ND	0.011	0.00042	ND	0.011	0.00042	ND	0.26	0.010	ND	0.21	0.0084
2,2-Dichloropropane	ND	0.011	0.00020	ND	0.011	0.00020	ND	0.26	0.0049	ND	0.21	0.0040
t-Amyl methyl ether	ND	0.011	0.00015	ND	0.011	0.00015	ND	0.26	0.0036	ND	0.21	0.0030
1,4-Dioxane	ND	0.011	0.00037	ND	0.011	0.00037	ND	0.26	0.0090	ND	0.21	0.0074
Naphthalene	0.0016 J	0.011	0.00081	0.0017 J	0.011	0.00081	ND	0.26	0.020	ND	0.21	0.016
1,2,3-Trichlorobenzene (TIC)	ND	--	--	ND	--	--	ND	--	--	ND	--	--

MDL = Method Detection Limit  
 ND= Not Detected (below MDL)  
 RL = Reporting Limit  
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson  
 Mark Johnson  
 Operations Manager

Date 6/14/17

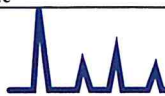
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Client: CH2M Hill  
 Attn: Eric Davis  
 Project Name: SFPP Norwalk  
 Project No.: NA  
 Date Received: 06/08/17  
 Matrix: Air  
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	METHOD BLANK																		
Client Sample I.D.:	--																		
Date/Time Sampled:	--																		
Date/Time Analyzed:	6/14/17 21:28																		
QC Batch No.:	170614MS2A1																		
Analyst Initials:	DT																		
Dilution Factor:	0.20																		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv																
Dichlorodifluoromethane (12)	ND	0.00020	0.000031																
Chloromethane	ND	0.00040	0.000044																
1,2-CI-1,1,2,2-F ethane (114)	ND	0.00020	0.000040																
Vinyl Chloride	ND	0.00020	0.000032																
Bromomethane	0.00010 J	0.00020	0.000059																
Chloroethane	ND	0.00020	0.00017																
Trichlorofluoromethane (11)	ND	0.00020	0.000043																
1,1-Dichloroethene	ND	0.00020	0.000045																
Carbon Disulfide	ND	0.0010	0.000048																
1,1,2-CI 1,2,2-F ethane (113)	ND	0.00020	0.000054																
Acetone	ND	0.0010	0.000058																
Methylene Chloride	ND	0.00020	0.000057																
t-1,2-Dichloroethene	ND	0.00020	0.000060																
1,1-Dichloroethane	ND	0.00020	0.000027																
c-1,2-Dichloroethene	ND	0.00020	0.000039																
2-Butanone	ND	0.00020	0.00012																
t-Butyl Methyl Ether (MTBE)	ND	0.00020	0.000045																
Chloroform	ND	0.00020	0.000028																
1,1,1-Trichloroethane	ND	0.00020	0.000020																
Carbon Tetrachloride	ND	0.00020	0.000035																
Benzene	ND	0.00020	0.000019																
1,2-Dichloroethane	ND	0.00020	0.000015																
Trichloroethene	ND	0.00020	0.000028																
1,2-Dichloropropane	ND	0.00020	0.000036																
Bromodichloromethane	ND	0.00020	0.000012																
c-1,3-Dichloropropene	ND	0.00020	0.000024																
4-Methyl-2-Pentanone	ND	0.00020	0.000013																
Toluene	ND	0.00020	0.000016																
t-1,3-Dichloropropene	ND	0.00020	0.000021																
1,1,2-Trichloroethane	ND	0.00020	0.000032																
1,3-Dichloropropane	ND	0.00020	0.0000099																
Tetrachloroethene	ND	0.00020	0.000024																
2-Hexanone	ND	0.00020	0.000041																
Dibromochloromethane	ND	0.00020	0.000036																
1,2-Dibromoethane	ND	0.00020	0.000018																
Chlorobenzene	ND	0.00020	0.000016																
Ethylbenzene	ND	0.00020	0.000011																
p,&m-Xylene	ND	0.00020	0.000023																
o-Xylene	ND	0.00020	0.000024																



Client: CH2M Hill  
 Attn: Eric Davis  
 Project Name: SFPP Norwalk  
 Project No.: NA  
 Date Received: 06/08/17  
 Matrix: Air  
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	METHOD BLANK																	
Client Sample I.D.:	--																	
Date/Time Sampled:	--																	
Date/Time Analyzed:	6/14/17 21:28																	
QC Batch No.:	170614MS2A1																	
Analyst Initials:	DT																	
Dilution Factor:	0.20																	
ANALYTE	Result ppmv	RL ppmv	MDL ppmv															
Styrene	ND	0.00020	0.000026															
Bromoform	ND	0.00020	0.000011															
Isopropyl benzene	ND	0.00020	0.000021															
1,1,2,2-Tetrachloroethane	ND	0.00040	0.000012															
Benzyl Chloride	ND	0.00020	0.000037															
1,2,3-Trichloropropane	ND	0.00020	0.000054															
n-Propyl Benzene	ND	0.00020	0.000012															
4-Ethyl Toluene	ND	0.00020	0.000013															
1,3,5-Trimethylbenzene	ND	0.00040	0.000035															
4-Chlorotoluene	ND	0.00020	0.000024															
tert-Butylbenzene	ND	0.00020	0.000018															
1,2,4-Trimethylbenzene	ND	0.00040	0.000023															
sec-Butylbenzene	ND	0.00020	0.000019															
p-Isopropyltoluene	ND	0.00020	0.000026															
1,3-Dichlorobenzene	0.000029 J	0.00020	0.000024															
1,4-Dichlorobenzene	0.000038 J	0.00020	0.000029															
n-Butylbenzene	0.000019 J	0.00020	0.000015															
1,2-Dichlorobenzene	0.000032 J	0.00020	0.000025															
1,2,4-Trichlorobenzene	0.000045 J	0.00040	0.000033															
Hexachlorobutadiene	0.000046 J	0.00020	0.000012															
t-Butanol	ND	0.0010	0.000038															
n-Hexane	ND	0.0010	0.000027															
Isopropyl ether	ND	0.0010	0.000022															
t-Butyl ethyl ether	ND	0.0010	0.000040															
2,2-Dichloropropane	ND	0.0010	0.000019															
t-Amyl methyl ether	ND	0.0010	0.000014															
1,4-Dioxane	ND	0.0010	0.000035															
Naphthalene	ND	0.0010	0.000077															
1,2,3-Trichlorobenzene (TIC)	ND	--	--															

MDL = Method Detection Limit  
 ND= Not Detected (below MDL)  
 RL = Reporting Limit  
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson  
 Operations Manager

Date 6/14/17

The cover letter is an integral part of this analytical report



LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 170614MS2A1

Matrix: Air

EPA Method TO-14/TO-15

Lab No:	Method Blank	LCS		LCSD		Limits						
Date/Time Analyzed:	6/14/17 21:28		6/14/17 20:04		6/14/17 20:45							
Data File ID:	14JUN017.D		14JUN015.D		14JUN016.D							
Analyst Initials:	DT		DT		DT							
Dilution Factor:	0.2		1.0		1.0							
ANALYTE	Result ppbv	Spike Amount	Result ppbv	% Rec	Result ppbv	% Rec	RPD	Low %Rec	High %Rec	Max. RPD	Pass/Fail	
1,1-Dichloroethene	0.0	10.0	11.0	110	10.9	109	0.9	70	130	30	Pass	
Methylene Chloride	0.0	10.0	11.4	114	11.1	111	2.4	70	130	30	Pass	
Trichloroethene	0.0	10.0	10.4	104	11.1	111	6.3	70	130	30	Pass	
Toluene	0.0	10.0	9.9	99	10.5	105	6.1	70	130	30	Pass	
1,1,2,2-Tetrachloroethane	0.0	10.0	8.7	87	8.9	89	2.5	70	130	30	Pass	

RPD = Relative Percent Difference

Reviewed/Approved By: *Mark Johnson*  
Mark Johnson  
Operations Manager

Date: *6/19/17*

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Client: CH2M Hill  
 Attn: Eric Davis  
 Project Name: SFPP Norwalk  
 Project No.: NA  
 Date Received: 06/08/17  
 Matrix: Air  
 Reporting Units: ppmv

EPA METHOD TO3

Lab No.:	I060807-01	I060807-02	I060807-03	I060807-04								
Client Sample I.D.:	VEFF-06-07	VEFF-06-07D	VPOST-06-07	VINF-06-07								
Date/Time Sampled:	6/7/17 13:00	6/7/17 13:00	6/7/17 14:00	6/7/17 14:10								
Date/Time Analyzed:	6/12/17 9:54	6/12/17 10:17	6/12/17 11:03	6/12/17 11:26								
QC Batch No.:	170612GC11A1	170612GC11A1	170612GC11A1	170612GC11A1								
Analyst Initials:	AS	AS	AS	AS								
Dilution Factor:	2.1	2.1	2.1	2.1								
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
TVOC as Hexane	1.8 J	2.1	0.37	1.8 J	2.1	0.37	220	2.1	0.36	190	2.1	0.37

MDL = Method Detection Limit  
 ND= Not Detected (below MDL)  
 RL = Reporting Limit  
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson  
 Mark Johnson  
 Operations Manager

Date 6/19/17

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QC Batch No: 170612GC11A1  
Matrix: Air  
Reporting Units: ppmv

**EPA METHOD TO3  
LABORATORY CONTROL SAMPLE SUMMARY**

<b>Lab No.:</b>	<b>METHOD BLANK</b>			<b>LCS</b>		<b>LCSD</b>					
<b>Date Analyzed:</b>	6/12/17 9:31			6/12/17 8:46		6/12/17 9:09					
<b>Analyst Initials:</b>	AS			AS		AS					
<b>Dilution Factor:</b>	1.0			1.0		1.0					
<b>ANALYTE</b>	<b>Result ppmv</b>	<b>RL ppmv</b>	<b>MDL ppmv</b>	<b>Result ppmv</b>	<b>% Rec.</b>	<b>Result ppmv</b>	<b>% Rec.</b>	<b>RPD %</b>	<b>Low %Rec</b>	<b>High %Rec</b>	<b>Max. RPD</b>
TVOC as Hexane	ND	1.0	0.18	4.61	92	4.52	90	2.0	70	130	25

MDL = Method Detection Limit  
ND= Not Detected (below MDL)  
RL = Reporting Limit  
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: \_\_\_\_\_  \_\_\_\_\_ Date 6/19/17

Mark Johnson  
Operations Manager

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Client: CH2M Hill  
 Attn: Eric Davis  
 Project Name: SFPP Norwalk  
 Project No.: NA  
 Date Received: 06/08/17  
 Matrix: Air  
 Reporting Units: % v/v

ASTM D1946

Lab No.:	I060807-04													
Client Sample I.D.:	VINP-06-07													
Date/Time Sampled:	6/7/17 14:10													
Date/Time Analyzed:	6/9/17 12:50													
QC Batch No.:	170609GC8A1													
Analyst Initials:	AS													
Dilution Factor:	2.1													
<b>ANALYTE</b>	<b>Result % v/v</b>	<b>RL % v/v</b>	<b>MDL % v/v</b>											
Carbon Dioxide	1.1	0.021	0.00089											
Oxygen/Argon	21	1.1	0.077											
Nitrogen	78	2.1	0.31											
Methane	0.029	0.0021	0.000096											

Results normalized including non-methane hydrocarbons  
 BTU values based on D1946 analysis and non-methane analysis assumed as propane  
 MDL = Method Detection Limit  
 ND= Not Detected (below MDL)  
 RL = Reporting Limit  
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By:                       
  
 Mark Johnson  
 Operations Manager

Date 6/9/17

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QC Batch No: 170609GC8A1  
 Matrix: Air  
 Reporting Units: % v/v

ASTM D1946  
**LABORATORY CONTROL SAMPLE SUMMARY**

Lab No.:	METHOD BLANK				LCS		LCSD					
Date Analyzed:	6/9/17 10:39				6/9/17 9:55		6/9/17 10:10					
Analyst Initials:	AS				AS		AS					
Dilution Factor:	1.0				1.0		1.0		Limits			
ANALYTE	Result % v/v	RL % v/v	MDL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Carbon Dioxide	ND	0.010	0.00042	10	9.60	96	9.46	94	1.5	70	130	30
Oxygen/Argon	0.20 J	0.50	0.037	15	16.1	107	16.0	106	0.7	70	130	30
Nitrogen	0.66 J	1.0	0.14	70	72.8	103	72.4	103	0.5	70	130	30
Methane	0.000095 J	0.0010	0.000046	0.10	0.106	106	0.106	106	0.2	70	130	30

MDL = Method Detection Limit  
 ND = Not Detected (below MDL)  
 RL = Reporting Limit  
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By:   
 Mark Jof Mark Johnson  
 Operations Manager

Date 6/19/17

The cover letter is an integral part of this analytical report



April 13, 2017

Dan Jablonski  
CH2MHill  
1000 Wilshire Blvd.  
Los Angeles, CA 90017

TEL:

FAX:

Workorder No.: N023765

RE: SFPP - Norwalk Site

Attention: Dan Jablonski

Enclosed are the results for sample(s) received on April 07, 2017 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Puri Romualdo  
Laboratory Director

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**ASSET LABORATORIES**  
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

"Servina Clients with Passion and Professionalism"

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3151 W. Post Rd., Las Vegas, NV 89118  
ELAP Cert 2676 | NV Cert NV00922  
ORELAP/NELAP Cert 4046

**CLIENT:** CH2MHill  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N023765

**CASE NARRATIVE**

**SAMPLE RECEIVING/GENERAL COMMENTS:**

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples were analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

**Analytical Comments for EPA 8260B:**

Laboratory Control Sample (LCS) recovery biased high for Acetone. Sample result was non-detect (ND) for this analyte therefore reanalysis of the sample was not necessary.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes in QC samples N023811-010AMS and N023811-010AMSD possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.



**CLIENT:** CH2MHill  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N023765  
**Contract No:**

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N023765-001A	INF-04-07	Wastewater	4/7/2017 12:30:00 PM	4/7/2017	4/14/2017
N023765-001B	INF-04-07	Wastewater	4/7/2017 12:30:00 PM	4/7/2017	4/14/2017



**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 13-Apr-17

**CLIENT:** CH2MHill  
**Lab Order:** N023765  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N023765-001

**Client Sample ID:** INF-04-07  
**Collection Date:** 4/7/2017 12:30:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>NV00922-MS5_170412A</b>	QC Batch: <b>P17VW063</b>	PrepDate:	Analyst: <b>RB</b>			
1,1,1,2-Tetrachloroethane	ND	0.089	1.0	ug/L	1	4/12/2017 01:07 PM
1,1,1-Trichloroethane	ND	0.15	1.0	ug/L	1	4/12/2017 01:07 PM
1,1,2,2-Tetrachloroethane	ND	0.14	1.0	ug/L	1	4/12/2017 01:07 PM
1,1,2-Trichloroethane	ND	0.15	1.0	ug/L	1	4/12/2017 01:07 PM
1,1-Dichloroethane	ND	0.13	0.50	ug/L	1	4/12/2017 01:07 PM
1,1-Dichloroethene	ND	0.15	1.0	ug/L	1	4/12/2017 01:07 PM
1,1-Dichloropropene	ND	0.12	1.0	ug/L	1	4/12/2017 01:07 PM
1,2,3-Trichlorobenzene	ND	0.16	1.0	ug/L	1	4/12/2017 01:07 PM
1,2,3-Trichloropropane	ND	0.097	1.0	ug/L	1	4/12/2017 01:07 PM
1,2,4-Trichlorobenzene	ND	0.13	1.0	ug/L	1	4/12/2017 01:07 PM
1,2,4-Trimethylbenzene	18	0.094	1.0	ug/L	1	4/12/2017 01:07 PM
1,2-Dibromo-3-chloropropane	ND	0.36	2.0	ug/L	1	4/12/2017 01:07 PM
1,2-Dibromoethane	ND	0.18	1.0	ug/L	1	4/12/2017 01:07 PM
1,2-Dichlorobenzene	ND	0.14	1.0	ug/L	1	4/12/2017 01:07 PM
1,2-Dichloroethane	ND	0.13	0.50	ug/L	1	4/12/2017 01:07 PM
1,2-Dichloropropane	ND	0.14	1.0	ug/L	1	4/12/2017 01:07 PM
1,3,5-Trimethylbenzene	5.9	0.11	1.0	ug/L	1	4/12/2017 01:07 PM
1,3-Dichlorobenzene	ND	0.11	1.0	ug/L	1	4/12/2017 01:07 PM
1,3-Dichloropropane	ND	0.13	1.0	ug/L	1	4/12/2017 01:07 PM
1,4-Dichlorobenzene	ND	0.13	1.0	ug/L	1	4/12/2017 01:07 PM
2,2-Dichloropropane	ND	0.16	1.0	ug/L	1	4/12/2017 01:07 PM
2-Butanone	ND	1.9	10	ug/L	1	4/12/2017 01:07 PM
2-Chlorotoluene	ND	0.14	1.0	ug/L	1	4/12/2017 01:07 PM
4-Chlorotoluene	ND	0.14	1.0	ug/L	1	4/12/2017 01:07 PM
4-Isopropyltoluene	ND	0.13	1.0	ug/L	1	4/12/2017 01:07 PM
4-Methyl-2-pentanone	ND	1.4	10	ug/L	1	4/12/2017 01:07 PM
Acetone	ND	4.3	10	ug/L	1	4/12/2017 01:07 PM
Acrolein	ND	1.9	20	ug/L	1	4/12/2017 01:07 PM
Acrylonitrile	ND	2.5	20	ug/L	1	4/12/2017 01:07 PM
Benzene	740	1.4	10	ug/L	10	4/12/2017 12:44 PM
Bromobenzene	ND	0.13	1.0	ug/L	1	4/12/2017 01:07 PM
Bromochloromethane	ND	0.15	1.0	ug/L	1	4/12/2017 01:07 PM
Bromodichloromethane	ND	0.10	1.0	ug/L	1	4/12/2017 01:07 PM
Bromoform	ND	0.34	1.0	ug/L	1	4/12/2017 01:07 PM
Bromomethane	ND	0.12	1.0	ug/L	1	4/12/2017 01:07 PM
Carbon disulfide	0.26	0.14	1.0	J ug/L	1	4/12/2017 01:07 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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"Servina Clients with Passion and Professionalism"

**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 13-Apr-17

**CLIENT:** CH2MHill  
**Lab Order:** N023765  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N023765-001

**Client Sample ID:** INF-04-07  
**Collection Date:** 4/7/2017 12:30:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>							
<b>EPA 8260B</b>							
RunID: <b>NV00922-MS5_170412A</b>	QC Batch: <b>P17VW063</b>	PrepDate:			Analyst: <b>RB</b>		
Carbon tetrachloride	ND	0.13	0.50		ug/L	1	4/12/2017 01:07 PM
Chlorobenzene	ND	0.13	1.0		ug/L	1	4/12/2017 01:07 PM
Chloroethane	ND	0.19	1.0		ug/L	1	4/12/2017 01:07 PM
Chloroform	ND	0.18	1.0		ug/L	1	4/12/2017 01:07 PM
Chloromethane	ND	0.22	1.0		ug/L	1	4/12/2017 01:07 PM
cis-1,2-Dichloroethene	ND	0.20	1.0		ug/L	1	4/12/2017 01:07 PM
cis-1,3-Dichloropropene	ND	0.14	1.0		ug/L	1	4/12/2017 01:07 PM
Di-isopropyl ether	4.8	0.18	1.0		ug/L	1	4/12/2017 01:07 PM
Dibromochloromethane	ND	0.12	1.0		ug/L	1	4/12/2017 01:07 PM
Dibromomethane	ND	0.12	1.0		ug/L	1	4/12/2017 01:07 PM
Dichlorodifluoromethane	ND	0.17	1.0		ug/L	1	4/12/2017 01:07 PM
Ethyl tert-butyl ether	ND	0.15	1.0		ug/L	1	4/12/2017 01:07 PM
Ethylbenzene	21	0.14	1.0		ug/L	1	4/12/2017 01:07 PM
Freon-113	ND	0.19	1.0		ug/L	1	4/12/2017 01:07 PM
Hexachlorobutadiene	ND	0.15	1.0		ug/L	1	4/12/2017 01:07 PM
Isopropylbenzene	6.6	0.11	1.0		ug/L	1	4/12/2017 01:07 PM
m,p-Xylene	68	0.23	1.0		ug/L	1	4/12/2017 01:07 PM
Methylene chloride	ND	0.26	2.0		ug/L	1	4/12/2017 01:07 PM
MTBE	7.5	0.13	1.0		ug/L	1	4/12/2017 01:07 PM
n-Butylbenzene	1.2	0.15	1.0		ug/L	1	4/12/2017 01:07 PM
n-Propylbenzene	13	0.16	1.0		ug/L	1	4/12/2017 01:07 PM
Naphthalene	54	0.094	1.0		ug/L	1	4/12/2017 01:07 PM
o-Xylene	19	0.13	1.0		ug/L	1	4/12/2017 01:07 PM
sec-Butylbenzene	0.94	0.12	1.0	J	ug/L	1	4/12/2017 01:07 PM
Styrene	ND	0.14	1.0		ug/L	1	4/12/2017 01:07 PM
Tert-amyl methyl ether	ND	0.12	1.0		ug/L	1	4/12/2017 01:07 PM
Tert-Butanol	120	1.8	5.0		ug/L	1	4/12/2017 01:07 PM
tert-Butylbenzene	ND	0.11	1.0		ug/L	1	4/12/2017 01:07 PM
Tetrachloroethene	ND	0.13	1.0		ug/L	1	4/12/2017 01:07 PM
Toluene	23	0.14	2.0		ug/L	1	4/12/2017 01:07 PM
trans-1,2-Dichloroethene	ND	0.20	1.0		ug/L	1	4/12/2017 01:07 PM
trans-1,3-Dichloropropene	ND	0.13	1.0		ug/L	1	4/12/2017 01:07 PM
Trichloroethene	ND	0.14	1.0		ug/L	1	4/12/2017 01:07 PM
Trichlorofluoromethane	ND	0.13	1.0		ug/L	1	4/12/2017 01:07 PM
Vinyl chloride	ND	0.15	0.50		ug/L	1	4/12/2017 01:07 PM
Xylenes, Total	87	1.5	2.0		ug/L	1	4/12/2017 01:07 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 13-Apr-17

**CLIENT:** CH2MHill  
**Lab Order:** N023765  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N023765-001

**Client Sample ID:** INF-04-07  
**Collection Date:** 4/7/2017 12:30:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID:	NV00922-MS5_170412A	QC Batch:	P17VW063	PrepDate:	Analyst:	RB	
Surr:	1,2-Dichloroethane-d4	95.6	0	72-119	%REC	10	4/12/2017 12:44 PM
Surr:	1,2-Dichloroethane-d4	90.3	0	72-119	%REC	1	4/12/2017 01:07 PM
Surr:	4-Bromofluorobenzene	100	0	76-119	%REC	10	4/12/2017 12:44 PM
Surr:	4-Bromofluorobenzene	99.2	0	76-119	%REC	1	4/12/2017 01:07 PM
Surr:	Dibromofluoromethane	98.2	0	85-115	%REC	1	4/12/2017 01:07 PM
Surr:	Dibromofluoromethane	100	0	85-115	%REC	10	4/12/2017 12:44 PM
Surr:	Toluene-d8	98.6	0	81-120	%REC	1	4/12/2017 01:07 PM
Surr:	Toluene-d8	100	0	81-120	%REC	10	4/12/2017 12:44 PM

**TPH EXTRACTABLE BY GC/FID**

**EPA 3510C**

**EPA 8015B**

RunID:	NV00922-GC3_170411A	QC Batch:	61859	PrepDate:	4/11/2017	Analyst:	JJS
TPH-Diesel (C13-C22)	780	16	26	ug/L	1	4/11/2017 02:32 PM	
TPH-Oil (C23-C36)	140	14	26	ug/L	1	4/11/2017 02:32 PM	
Surr: Octacosane	101	0	26-152	%REC	1	4/11/2017 02:32 PM	
Surr: p-Terphenyl	92.0	0	57-132	%REC	1	4/11/2017 02:32 PM	

**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B**

RunID:	NV00922-GC4_170410A	QC Batch:	E17VW036	PrepDate:	Analyst:	RB
TPH-Gasoline (C4-C12)	1200	16	50	ug/L	1	4/10/2017 11:57 PM
Surr: Chlorobenzene - d5	80.5	0	74-138	%REC	1	4/10/2017 11:57 PM

**TOTAL TPH**

**EPA 8015B**

RunID:	NV00922-GC3_170411A	QC Batch:	R114589	PrepDate:	Analyst:	JJS
Total TPH	2100	16	50	ug/L	1	4/11/2017

- |                    |  |  |
|--------------------|--|--|
| <b>Qualifiers:</b> | B Analyte detected in the associated Method Blank    | E Value above quantitation range                               |
|                    | H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits                   |
|                    | ND Not Detected at the Reporting Limit               | S Spike/Surrogate outside of limits due to matrix interference |
|                    | Results are wet unless otherwise specified           | DO Surrogate Diluted Out                                       |



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**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

**ANALYTICAL QC SUMMARY REPORT**

**TestCode: 8015\_W\_FP\_SFPP**

Sample ID: <b>MB-61859</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_FP_</b>	Units: <b>ug/L</b>	Prep Date: <b>4/11/2017</b>	RunNo: <b>114589</b>						
Client ID: <b>PBW</b>	Batch ID: <b>61859</b>	TestNo: <b>EPA 8015B EPA 3510C</b>		Analysis Date: <b>4/11/2017</b>	SeqNo: <b>2613825</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C13-C22)	ND	25									
TPH-Oil (C23-C36)	ND	25									
Surr: Octacosane	79.675		80.00		99.6	26	152				
Surr: p-Terphenyl	72.656		80.00		90.8	57	132				

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

Calculations are based on raw values



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**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_SFPPTOT**

Sample ID: <b>MB-R114589</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_SFP</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114589</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R114589</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>4/11/2017</b>	SeqNo: <b>2613840</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total TPH	ND	50									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**ASSET LABORATORIES**  
ANALYTICAL SERVICES FOR CHEMICAL, ENVIRONMENTAL, AND TOXICOLOGY

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**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015GAS\_WSFPP**

Sample ID: <b>E170410LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8015GAS_WS</b> Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114564</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>E17VW036</b>	TestNo: <b>EPA 8015B</b>	Analysis Date: <b>4/10/2017</b>	SeqNo: <b>2613112</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	925.000	50	1000	0	92.5	67	136				
Surr: Chlorobenzene - d5	51148.000		50000		102	74	138				

Sample ID: <b>E170410MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8015GAS_WS</b> Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114564</b>							
Client ID: <b>PBW</b>	Batch ID: <b>E17VW036</b>	TestNo: <b>EPA 8015B</b>	Analysis Date: <b>4/10/2017</b>	SeqNo: <b>2613113</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	ND	50									
Surr: Chlorobenzene - d5	55981.000		50000		112	74	138				

Sample ID: <b>N023717-002BMS</b>	SampType: <b>MS</b>	TestCode: <b>8015GAS_WS</b> Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114564</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>E17VW036</b>	TestNo: <b>EPA 8015B</b>	Analysis Date: <b>4/10/2017</b>	SeqNo: <b>2613116</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	804.000	50	1000	0	80.4	67	136				
Surr: Chlorobenzene - d5	55059.000		50000		110	74	138				

Sample ID: <b>N023717-002BMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015GAS_WS</b> Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114564</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>E17VW036</b>	TestNo: <b>EPA 8015B</b>	Analysis Date: <b>4/10/2017</b>	SeqNo: <b>2613117</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	855.000	50	1000	0	85.5	67	136	804.0	6.15	30	
Surr: Chlorobenzene - d5	53900.000		50000		108	74	138		0	0	

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



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"Serving Clients with Passion and Professionalism"

**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>P170412LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615546</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.730	1.0	20.00	0	109	81	129				
1,1,1-Trichloroethane	21.600	1.0	20.00	0	108	67	132				
1,1,2,2-Tetrachloroethane	20.820	1.0	20.00	0	104	63	128				
1,1,2-Trichloroethane	20.380	1.0	20.00	0	102	75	125				
1,1-Dichloroethane	20.580	0.50	20.00	0	103	69	133				
1,1-Dichloroethene	20.990	1.0	20.00	0	105	68	130				
1,1-Dichloropropene	22.740	1.0	20.00	0	114	73	132				
1,2,3-Trichlorobenzene	21.050	1.0	20.00	0	105	67	137				
1,2,3-Trichloropropane	20.660	1.0	20.00	0	103	73	124				
1,2,4-Trichlorobenzene	21.520	1.0	20.00	0	108	66	134				
1,2,4-Trimethylbenzene	20.550	1.0	20.00	0	103	74	132				
1,2-Dibromo-3-chloropropane	21.090	2.0	20.00	0	105	50	132				
1,2-Dibromoethane	20.430	1.0	20.00	0	102	80	121				
1,2-Dichlorobenzene	20.890	1.0	20.00	0	104	71	122				
1,2-Dichloroethane	20.030	0.50	20.00	0	100	69	132				
1,2-Dichloropropane	20.540	1.0	20.00	0	103	75	125				
1,3,5-Trimethylbenzene	20.580	1.0	20.00	0	103	74	131				
1,3-Dichlorobenzene	20.510	1.0	20.00	0	103	75	124				
1,3-Dichloropropane	21.360	1.0	20.00	0	107	73	126				
1,4-Dichlorobenzene	21.010	1.0	20.00	0	105	74	123				
2,2-Dichloropropane	21.210	1.0	20.00	0	106	69	137				
2-Butanone	227.750	10	200.0	0	114	49	136				
2-Chlorotoluene	20.540	1.0	20.00	0	103	73	126				
4-Chlorotoluene	20.980	1.0	20.00	0	105	74	128				
4-Isopropyltoluene	22.060	1.0	20.00	0	110	73	130				
4-Methyl-2-pentanone	199.390	10	200.0	0	99.7	58	134				
Acetone	305.760	10	200.0	0	153	40	135				S
Acrolein	236.840	20	200.0	0	118	75	125				
Acrylonitrile	210.200	20	200.0	0	105	75	125				
Benzene	20.340	1.0	20.00	0	102	81	122				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



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ANALYTICAL SERVICES • ENVIRONMENTAL • INDUSTRIAL • REGULATORY

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"Serving Clients with Passion and Professionalism"

**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>P170412LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>
Client ID: <b>LCSW</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615546</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	20.570	1.0	20.00	0	103	76	124				
Bromochloromethane	19.480	1.0	20.00	0	97.4	65	129				
Bromodichloromethane	20.270	1.0	20.00	0	101	76	121				
Bromoform	19.230	1.0	20.00	0	96.2	69	128				
Bromomethane	17.160	1.0	20.00	0	85.8	53	141				
Carbon disulfide	16.240	1.0	20.00	0	81.2	75	125				
Carbon tetrachloride	21.840	0.50	20.00	0	109	66	138				
Chlorobenzene	21.220	1.0	20.00	0	106	81	122				
Chloroethane	20.440	1.0	20.00	0	102	58	133				
Chloroform	19.290	1.0	20.00	0	96.5	69	128				
Chloromethane	18.310	1.0	20.00	0	91.6	56	131				
cis-1,2-Dichloroethene	20.520	1.0	20.00	0	103	72	126				
cis-1,3-Dichloropropene	21.420	1.0	20.00	0	107	69	131				
Di-isopropyl ether	19.490	1.0	20.00	0	97.5	70	130				
Dibromochloromethane	21.460	1.0	20.00	0	107	66	133				
Dibromomethane	20.140	1.0	20.00	0	101	76	125				
Dichlorodifluoromethane	19.500	1.0	20.00	0	97.5	53	153				
Ethyl tert-butyl ether	19.540	1.0	20.00	0	97.7	70	130				
Ethylbenzene	20.680	1.0	20.00	0	103	73	127				
Freon-113	18.180	1.0	20.00	0	90.9	75	125				
Hexachlorobutadiene	22.150	1.0	20.00	0	111	67	131				
Isopropylbenzene	18.270	1.0	20.00	0	91.4	75	127				
m,p-Xylene	41.350	1.0	40.00	0	103	76	128				
Methylene chloride	20.640	2.0	20.00	0	103	63	137				
MTBE	19.830	1.0	20.00	0	99.2	65	123				
n-Butylbenzene	22.100	1.0	20.00	0	110	69	137				
n-Propylbenzene	21.830	1.0	20.00	0	109	72	129				
Naphthalene	21.530	1.0	20.00	0	108	54	138				
o-Xylene	21.010	1.0	20.00	0	105	80	121				
sec-Butylbenzene	21.520	1.0	20.00	0	108	72	127				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



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"Serving Clients with Passion and Professionalism"

**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>P170412LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615546</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	20.330	1.0	20.00	0	102	65	134				
Tert-amyl methyl ether	19.860	1.0	20.00	0	99.3	70	130				
Tert-Butanol	97.950	5.0	100.0	0	98.0	70	130				
tert-Butylbenzene	22.230	1.0	20.00	0	111	70	129				
Tetrachloroethene	22.160	1.0	20.00	0	111	66	128				
Toluene	19.380	2.0	20.00	0	96.9	77	122				
trans-1,2-Dichloroethene	20.740	1.0	20.00	0	104	63	137				
trans-1,3-Dichloropropene	20.680	1.0	20.00	0	103	59	135				
Trichloroethene	21.290	1.0	20.00	0	106	70	127				
Trichlorofluoromethane	22.960	1.0	20.00	0	115	57	129				
Vinyl chloride	21.620	0.50	20.00	0	108	50	134				
Xylenes, Total	62.360	2.0	60.00	0	104	75	125				
Surr: 1,2-Dichloroethane-d4	25.980		25.00		104	72	119				
Surr: 4-Bromofluorobenzene	25.020		25.00		100	76	119				
Surr: Dibromofluoromethane	26.970		25.00		108	85	115				
Surr: Toluene-d8	25.130		25.00		101	81	120				

Sample ID: <b>P170412MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615549</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	1.0									
1,1-Dichloropropene	ND	1.0									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,3-Trichloropropane	ND	1.0									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



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"Serving Clients with Passion and Professionalism"

**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>P170412MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615549</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromo-3-chloropropane	ND	2.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,3-Dichloropropane	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2,2-Dichloropropane	ND	1.0									
2-Butanone	ND	10									
2-Chlorotoluene	ND	1.0									
4-Chlorotoluene	ND	1.0									
4-Isopropyltoluene	ND	1.0									
4-Methyl-2-pentanone	ND	10									
Acetone	ND	10									
Acrolein	ND	20									
Acrylonitrile	ND	20									
Benzene	ND	1.0									
Bromobenzene	ND	1.0									
Bromochloromethane	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



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ANALYTICAL SERVICES DIVISION

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"Serving Clients with Passion and Professionalism"

**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>P170412MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615549</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
Di-isopropyl ether	ND	1.0									
Dibromochloromethane	ND	1.0									
Dibromomethane	ND	1.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl tert-butyl ether	ND	1.0									
Ethylbenzene	ND	1.0									
Freon-113	ND	1.0									
Hexachlorobutadiene	ND	1.0									
Isopropylbenzene	ND	1.0									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	2.0									
MTBE	ND	1.0									
n-Butylbenzene	ND	1.0									
n-Propylbenzene	ND	1.0									
Naphthalene	0.170	1.0									J
o-Xylene	ND	1.0									
sec-Butylbenzene	ND	1.0									
Styrene	ND	1.0									
Tert-amyl methyl ether	ND	1.0									
Tert-Butanol	ND	5.0									
tert-Butylbenzene	ND	1.0									
Tetrachloroethene	ND	1.0									
Toluene	0.170	2.0									J
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**ASSET LABORATORIES**  
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"Serving Clients with Passion and Professionalism"



**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>P170412MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615549</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	2.0									
Surr: 1,2-Dichloroethane-d4	26.010		25.00		104	72	119				
Surr: 4-Bromofluorobenzene	25.320		25.00		101	76	119				
Surr: Dibromofluoromethane	27.150		25.00		109	85	115				
Surr: Toluene-d8	26.030		25.00		104	81	120				

Sample ID: <b>N023811-010AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615556</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1,2-Tetrachloroethane	20.070	1.0	20.00	0	100	81	129				
1,1,1-Trichloroethane	18.400	1.0	20.00	0	92.0	67	132				
1,1,2,2-Tetrachloroethane	19.130	1.0	20.00	0	95.7	63	128				
1,1,2-Trichloroethane	17.530	1.0	20.00	0	87.6	75	125				
1,1-Dichloroethane	17.630	0.50	20.00	0	88.2	69	133				
1,1-Dichloroethene	19.320	1.0	20.00	0	96.6	68	130				
1,1-Dichloropropene	20.610	1.0	20.00	0	103	73	132				
1,2,3-Trichlorobenzene	19.370	1.0	20.00	0	96.9	67	137				
1,2,3-Trichloropropane	18.970	1.0	20.00	0	94.8	73	124				
1,2,4-Trichlorobenzene	20.050	1.0	20.00	0	100	66	134				
1,2,4-Trimethylbenzene	19.390	1.0	20.00	0	97.0	74	132				
1,2-Dibromo-3-chloropropane	19.050	2.0	20.00	0	95.2	50	132				
1,2-Dibromoethane	18.300	1.0	20.00	0	91.5	80	121				
1,2-Dichlorobenzene	19.910	1.0	20.00	0	99.6	71	122				
1,2-Dichloroethane	17.790	0.50	20.00	0	89.0	69	132				
1,2-Dichloropropane	19.260	1.0	20.00	0	96.3	75	125				
1,3,5-Trimethylbenzene	19.180	1.0	20.00	0	95.9	74	131				
1,3-Dichlorobenzene	19.880	1.0	20.00	0	99.4	75	124				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**ASSET LABORATORIES**  
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"Serving Clients with Passion and Professionalism"

**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>N023811-010AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615556</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichloropropane	19.860	1.0	20.00	0	99.3	73	126				
1,4-Dichlorobenzene	20.000	1.0	20.00	0	100	74	123				
2,2-Dichloropropane	18.800	1.0	20.00	0	94.0	69	137				
2-Butanone	229.220	10	200.0	0	115	49	136				
2-Chlorotoluene	19.320	1.0	20.00	0	96.6	73	126				
4-Chlorotoluene	19.800	1.0	20.00	0	99.0	74	128				
4-Isopropyltoluene	20.210	1.0	20.00	0	101	73	130				
4-Methyl-2-pentanone	180.330	10	200.0	0	90.2	58	134				
Acetone	350.690	10	200.0	0	175	40	135				S
Acrolein	181.240	20	200.0	0	90.6	75	125				
Acrylonitrile	182.450	20	200.0	0	91.2	75	125				
Benzene	18.910	1.0	20.00	0.3100	93.0	81	122				
Bromobenzene	19.160	1.0	20.00	0	95.8	76	124				
Bromochloromethane	17.480	1.0	20.00	0	87.4	65	129				
Bromodichloromethane	45.550	1.0	20.00	29.92	78.2	76	121				
Bromoform	45.370	1.0	20.00	28.39	84.9	69	128				
Bromomethane	16.240	1.0	20.00	0	81.2	53	141				
Carbon disulfide	14.830	1.0	20.00	0	74.2	75	125				S
Carbon tetrachloride	19.560	0.50	20.00	0	97.8	66	138				
Chlorobenzene	20.470	1.0	20.00	0	102	81	122				
Chloroethane	19.570	1.0	20.00	0	97.9	58	133				
Chloroform	29.850	1.0	20.00	15.66	71.0	69	128				
Chloromethane	16.610	1.0	20.00	0	83.0	56	131				
cis-1,2-Dichloroethene	17.710	1.0	20.00	0	88.6	72	126				
cis-1,3-Dichloropropene	19.580	1.0	20.00	0	97.9	69	131				
Di-isopropyl ether	16.370	1.0	20.00	0	81.8	70	130				
Dibromochloromethane	77.410	1.0	20.00	59.16	91.2	66	133				
Dibromomethane	18.820	1.0	20.00	0	94.1	76	125				
Dichlorodifluoromethane	17.320	1.0	20.00	0	86.6	53	153				
Ethyl tert-butyl ether	16.550	1.0	20.00	0	82.8	70	130				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**ASSET LABORATORIES**  
ANALYTICAL SERVICES FOR THE ENVIRONMENT, ENERGY & WATER

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ORELAP/NELAP Cert 4046

"Serving Clients with Passion and Professionalism"

**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>N023811-010AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615556</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	19.690	1.0	20.00	0	98.4	73	127				
Freon-113	16.470	1.0	20.00	0	82.4	75	125				
Hexachlorobutadiene	20.550	1.0	20.00	0	103	67	131				
Isopropylbenzene	16.630	1.0	20.00	0	83.2	75	127				
m,p-Xylene	38.920	1.0	40.00	0	97.3	76	128				
Methylene chloride	17.790	2.0	20.00	0	89.0	63	137				
MTBE	16.420	1.0	20.00	0	82.1	65	123				
n-Butylbenzene	20.290	1.0	20.00	0	101	69	137				
n-Propylbenzene	20.220	1.0	20.00	0	101	72	129				
Naphthalene	18.960	1.0	20.00	1.540	87.1	54	138				
o-Xylene	19.710	1.0	20.00	0	98.6	80	121				
sec-Butylbenzene	20.020	1.0	20.00	0	100	72	127				
Styrene	19.230	1.0	20.00	0	96.2	65	134				
Tert-amyl methyl ether	17.950	1.0	20.00	0	89.8	70	130				
Tert-Butanol	79.470	5.0	100.0	0	79.5	70	130				
tert-Butylbenzene	20.440	1.0	20.00	0	102	70	129				
Tetrachloroethene	20.990	1.0	20.00	0	105	66	128				
Toluene	18.040	2.0	20.00	0.2200	89.1	77	122				
trans-1,2-Dichloroethene	18.260	1.0	20.00	0	91.3	63	137				
trans-1,3-Dichloropropene	18.990	1.0	20.00	0	95.0	59	135				
Trichloroethene	19.610	1.0	20.00	0	98.0	70	127				
Trichlorofluoromethane	21.590	1.0	20.00	0	108	57	129				
Vinyl chloride	19.460	0.50	20.00	0	97.3	50	134				
Xylenes, Total	58.630	2.0	60.00	0	97.7	75	125				
Surr: 1,2-Dichloroethane-d4	23.160		25.00		92.6	72	119				
Surr: 4-Bromofluorobenzene	25.210		25.00		101	76	119				
Surr: Dibromofluoromethane	24.450		25.00		97.8	85	115				
Surr: Toluene-d8	24.690		25.00		98.8	81	120				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**ASSET LABORATORIES**  
ANALYTICAL SERVICES FOR THE ENVIRONMENTAL INDUSTRY

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 3151 W. Post Rd., Las Vegas, NV 89118  
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"Serving Clients with Passion and Professionalism"

**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>N023811-010AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615557</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	20.250	1.0	20.00	0	101	81	129	20.07	0.893	20	
1,1,1-Trichloroethane	20.710	1.0	20.00	0	104	67	132	18.40	11.8	20	
1,1,2,2-Tetrachloroethane	19.850	1.0	20.00	0	99.2	63	128	19.13	3.69	20	
1,1,2-Trichloroethane	18.710	1.0	20.00	0	93.6	75	125	17.53	6.51	20	
1,1-Dichloroethane	19.510	0.50	20.00	0	97.6	69	133	17.63	10.1	20	
1,1-Dichloroethene	22.140	1.0	20.00	0	111	68	130	19.32	13.6	20	
1,1-Dichloropropene	22.280	1.0	20.00	0	111	73	132	20.61	7.79	20	
1,2,3-Trichlorobenzene	20.800	1.0	20.00	0	104	67	137	19.37	7.12	20	
1,2,3-Trichloropropane	19.450	1.0	20.00	0	97.3	73	124	18.97	2.50	20	
1,2,4-Trichlorobenzene	21.210	1.0	20.00	0	106	66	134	20.05	5.62	20	
1,2,4-Trimethylbenzene	20.600	1.0	20.00	0	103	74	132	19.39	6.05	20	
1,2-Dibromo-3-chloropropane	18.770	2.0	20.00	0	93.8	50	132	19.05	1.48	20	
1,2-Dibromoethane	19.410	1.0	20.00	0	97.0	80	121	18.30	5.89	20	
1,2-Dichlorobenzene	20.480	1.0	20.00	0	102	71	122	19.91	2.82	20	
1,2-Dichloroethane	19.140	0.50	20.00	0	95.7	69	132	17.79	7.31	20	
1,2-Dichloropropane	20.170	1.0	20.00	0	101	75	125	19.26	4.62	20	
1,3,5-Trimethylbenzene	20.480	1.0	20.00	0	102	74	131	19.18	6.56	20	
1,3-Dichlorobenzene	20.870	1.0	20.00	0	104	75	124	19.88	4.86	20	
1,3-Dichloropropane	20.150	1.0	20.00	0	101	73	126	19.86	1.45	20	
1,4-Dichlorobenzene	21.350	1.0	20.00	0	107	74	123	20.00	6.53	20	
2,2-Dichloropropane	20.390	1.0	20.00	0	102	69	137	18.80	8.11	20	
2-Butanone	241.260	10	200.0	0	121	49	136	229.2	5.12	20	
2-Chlorotoluene	20.360	1.0	20.00	0	102	73	126	19.32	5.24	20	
4-Chlorotoluene	20.730	1.0	20.00	0	104	74	128	19.80	4.59	20	
4-Isopropyltoluene	21.680	1.0	20.00	0	108	73	130	20.21	7.02	20	
4-Methyl-2-pentanone	190.230	10	200.0	0	95.1	58	134	180.3	5.34	20	
Acetone	372.120	10	200.0	0	186	40	135	350.7	5.93	20	S
Acrolein	199.150	20	200.0	0	99.6	75	125	181.2	9.42	20	
Acrylonitrile	195.610	20	200.0	0	97.8	75	125	182.4	6.96	20	
Benzene	20.210	1.0	20.00	0.3100	99.5	81	122	18.91	6.65	20	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



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"Serving Clients with Passion and Professionalism"

**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>N023811-010AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615557</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	20.210	1.0	20.00	0	101	76	124	19.16	5.33	20	
Bromochloromethane	19.020	1.0	20.00	0	95.1	65	129	17.48	8.44	20	
Bromodichloromethane	47.910	1.0	20.00	29.92	90.0	76	121	45.55	5.05	20	
Bromoform	45.700	1.0	20.00	28.39	86.6	69	128	45.37	0.725	20	
Bromomethane	19.730	1.0	20.00	0	98.6	53	141	16.24	19.4	20	
Carbon disulfide	16.710	1.0	20.00	0	83.6	75	125	14.83	11.9	20	
Carbon tetrachloride	21.020	0.50	20.00	0	105	66	138	19.56	7.20	20	
Chlorobenzene	20.940	1.0	20.00	0	105	81	122	20.47	2.27	20	
Chloroethane	23.080	1.0	20.00	0	115	58	133	19.57	16.5	20	
Chloroform	32.670	1.0	20.00	15.66	85.0	69	128	29.85	9.02	20	
Chloromethane	18.360	1.0	20.00	0	91.8	56	131	16.61	10.0	20	
cis-1,2-Dichloroethene	19.920	1.0	20.00	0	99.6	72	126	17.71	11.7	20	
cis-1,3-Dichloropropene	21.190	1.0	20.00	0	106	69	131	19.58	7.90	20	
Di-isopropyl ether	17.810	1.0	20.00	0	89.0	70	130	16.37	8.43	20	
Dibromochloromethane	77.160	1.0	20.00	59.16	90.0	66	133	77.41	0.323	20	
Dibromomethane	19.520	1.0	20.00	0	97.6	76	125	18.82	3.65	20	
Dichlorodifluoromethane	19.110	1.0	20.00	0	95.6	53	153	17.32	9.83	20	
Ethyl tert-butyl ether	17.770	1.0	20.00	0	88.8	70	130	16.55	7.11	20	
Ethylbenzene	20.700	1.0	20.00	0	104	73	127	19.69	5.00	20	
Freon-113	18.410	1.0	20.00	0	92.0	75	125	16.47	11.1	20	
Hexachlorobutadiene	22.350	1.0	20.00	0	112	67	131	20.55	8.39	20	
Isopropylbenzene	17.840	1.0	20.00	0	89.2	75	127	16.63	7.02	20	
m,p-Xylene	41.320	1.0	40.00	0	103	76	128	38.92	5.98	20	
Methylene chloride	19.370	2.0	20.00	0	96.9	63	137	17.79	8.50	20	
MTBE	18.020	1.0	20.00	0	90.1	65	123	16.42	9.29	20	
n-Butylbenzene	21.770	1.0	20.00	0	109	69	137	20.29	7.04	20	
n-Propylbenzene	21.930	1.0	20.00	0	110	72	129	20.22	8.11	20	
Naphthalene	20.330	1.0	20.00	1.540	94.0	54	138	18.96	6.97	20	
o-Xylene	20.830	1.0	20.00	0	104	80	121	19.71	5.53	20	
sec-Butylbenzene	21.410	1.0	20.00	0	107	72	127	20.02	6.71	20	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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"Serving Clients with Passion and Professionalism"

**CLIENT:** CH2MHill  
**Work Order:** N023765  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID: <b>N023811-010AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>114621</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P17VW063</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>4/12/2017</b>	SeqNo: <b>2615557</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	19.770	1.0	20.00	0	98.8	65	134	19.23	2.77	20	
Tert-amyl methyl ether	18.970	1.0	20.00	0	94.8	70	130	17.95	5.53	20	
Tert-Butanol	85.640	5.0	100.0	0	85.6	70	130	79.47	7.47	20	
tert-Butylbenzene	22.210	1.0	20.00	0	111	70	129	20.44	8.30	20	
Tetrachloroethene	21.570	1.0	20.00	0	108	66	128	20.99	2.73	20	
Toluene	19.530	2.0	20.00	0.2200	96.6	77	122	18.04	7.93	20	
trans-1,2-Dichloroethene	19.880	1.0	20.00	0	99.4	63	137	18.26	8.50	20	
trans-1,3-Dichloropropene	19.710	1.0	20.00	0	98.6	59	135	18.99	3.72	20	
Trichloroethene	21.700	1.0	20.00	0	108	70	127	19.61	10.1	20	
Trichlorofluoromethane	24.250	1.0	20.00	0	121	57	129	21.59	11.6	20	
Vinyl chloride	21.210	0.50	20.00	0	106	50	134	19.46	8.61	20	
Xylenes, Total	62.150	2.0	60.00	0	104	75	125	58.63	5.83	20	
Surr: 1,2-Dichloroethane-d4	24.760		25.00		99.0	72	119		0		
Surr: 4-Bromofluorobenzene	24.660		25.00		98.6	76	119		0		
Surr: Dibromofluoromethane	25.340		25.00		101	85	115		0		
Surr: Toluene-d8	25.200		25.00		101	81	120		0		

**Qualifiers:**

- |  |  |  |
|--|--|--|
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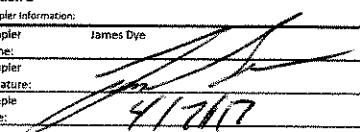
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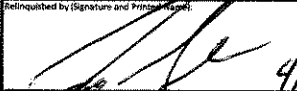
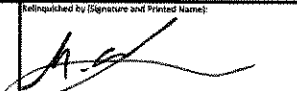
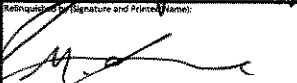
Advanced Technology Laboratories  
 3151 W. Post Road  
 Las Vegas, NV 89118  
 Tel: 702-307-2659 Fax: 702-307-2691  
 Marlon Cartin (marlon@atl-labs.com)

CHAIN OF CUSTODY RECORD

DATE: 4/7/17  
 PAGE: 1 of 1

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoicing Information:		<b>Section D</b> Sampler Information:	
Company: Kinder Morgan Energy Partners Attention: Steve Defibaugh		Report To: Dan Jablonski		Attention: Steve Defibaugh - Ref. AFER 81195		Sampler Name: James Dye	
Address: 1100 Town & Country Road Orange, CA 92868		Copy To: Steve Defibaugh		Company: Kinder Morgan Energy Partners		Sampler Signature: 	
Email To: <a href="mailto:steve_defibaugh@kindermorgan.com">steve_defibaugh@kindermorgan.com</a> <a href="mailto:daniel.jablonski@ch2m.com">daniel.jablonski@ch2m.com</a>		Purchase Order No.:		Address: 1100 Town & Country Road Orange, CA 92868		Sample Date: <u>4/7/17</u>	
Phone: 714-560-4802 Fax: 714-560-4801		Project Name: SFPP Norwalk		ATL Project Manager: Marlon Cartin			

ITEM #	SAMPLE ID	LOCATION/ DESCRIPTION	MATRIX	SAMPLE TYPE (G-GRAB C-COMP)	SAMPLING		TOTAL # OF CONTAINERS	SAMPLE TEMPERATURE (°F)	Analysis Test	Full VOCs + Organics List (R2008)	TPH-6, TPH-d, and TPH-ol (80158)	Comments
					DATE	TIME						
1	INF-04-07	INFLUENT	WW	G	4/7/17	1230	8	74	X	X		N023765 - 01
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Relinquished by (Signature and Printed Name):  Date / Time: <u>4/7/17 1250</u>	Relinquished by (Signature and Printed Name):  Date / Time: <u>4-7-17 1419</u>	Turn Around Time (TAT): <input type="checkbox"/> A = Same Day <input type="checkbox"/> B = 24 Hours <input type="checkbox"/> C = 48 Hours <input type="checkbox"/> D = 72 Hours <input type="checkbox"/> E = 5 Workdays <input type="checkbox"/> E = 10 Workdays TAT Starts at 8 AM the following day if samples received after 3:00 PM.	Special Instruction:  <u>2.8°C JPL #2</u>  <u>650 #: 0342</u>
Relinquished by (Signature and Printed Name):  Date / Time: <u>4-7-17 1435</u>	Relinquished by (Signature and Printed Name): <u>Yoandra Rodriguez</u> Date / Time: <u>4/8/17 8:30 am</u>		

Matrix:			Preservatives:			Container Type:			
W = Water	WW = Wastewater		H = HCl	N = HNO3	S = H2SO4	T = Tube	V = VOA	P = Pint	A = Amber
O = Oil	P = Product	S = Soil	Z = Zn(AC)2	O = NaOH	T = Na2S2O3	J = Jar	B = Tedlar	G = Glass	
Others/Specify:			Others/Specify:			M = Metal	P = Plastic	C = Can	

# ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On: 4/7/2017 Workorder: N023765  
 Rep sample Temp (Deg C): 2.8 IR Gun ID: 2  
 Temp Blank:  Yes  No  
 Carrier name: Golden State Overnight  
 Last 4 digits of Tracking No.: 0342 Packing Material Used: Bubble Wrap  
 Cooling process:  Ice  Ice Pack  Dry Ice  Other  None

## Sample Receipt Checklist

- |   |   |                             |   |
|---|---|-----------------------------|---|
| 1. Shipping container/cooler in good condition?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| 2. Custody seals intact, signed, dated on shipping container/cooler?                    | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles?  | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 5. Sampler's name present in COC?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 6. Chain of custody signed when relinquished and received?                              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 7. Chain of custody agrees with sample labels?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 8. Samples in proper container/bottle?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 9. Sample containers intact?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 10. Sufficient sample volume for indicated test?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 11. All samples received within holding time?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 12. Temperature of rep sample or Temp Blank within acceptable limit?                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 13. Water - VOA vials have zero headspace?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 14. Water - pH acceptable upon receipt?<br>Example: pH > 12 for (CN,S); pH<2 for Metals | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |
| 15. Did the bottle labels indicate correct preservatives used?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 16. Were there Non-Conformance issues at login?<br>Was Client notified?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |
|   | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |

Comments:

Checklist Completed By: YR YR 4/10/2017

Reviewed By: MBC 4/11/2017



## Yoandra Rodriguez

---

**From:** Marlon Cartin (marlon@assetlaboratories.com) [marlon@assetlaboratories.com]  
**Sent:** Saturday, April 08, 2017 10:56 AM  
**To:** SampleControlLV; Yoandra Rodriguez; quennie@assetlaboratories.com  
**Subject:** Fwd: SFPP Norwalk Midpoint 040417

Please be guided accordingly.

Marlon B. Cartin  
ASSET Laboratories  
P: 702.307.2659 ext 410 M:702.439.0421

Sent from my iPhone

Begin forwarded message:

**From:** "Cortes, Vidal/SCO" <[Vidal.Cortes@ch2m.com](mailto:Vidal.Cortes@ch2m.com)>  
**Date:** April 7, 2017 at 2:19:15 PM PDT  
**To:** "Marlon B. Cartin" <[marlon@assetlaboratories.com](mailto:marlon@assetlaboratories.com)>, "Jablonski, Daniel/LAC" <[Daniel.Jablonski@CH2M.com](mailto:Daniel.Jablonski@CH2M.com)>, 'Molky Brar' <[molky@assetlaboratories.com](mailto:molky@assetlaboratories.com)>  
**Cc:** "Carino, Vladimir/SCO" <[Vladimir.Carino@CH2M.com](mailto:Vladimir.Carino@CH2M.com)>, "Irvine, Cameron/SAC" <[Cameron.Irvine@CH2M.com](mailto:Cameron.Irvine@CH2M.com)>  
**Subject:** RE: SFPP Norwalk Midpoint 040417

Marlon,

It looks like we will not be exceeding any holding times for each analysis (14 days for all). Please run the midpoints that were collected on Tuesday, 4/4, on the quickest TAT possible. We will hold off on analyzing the Effluent and Influent samples collected today until we have reviewed the results of the sample collected on 4/4. Please confirm that we will not be exceeding any holding times for the effluent and influent samples.

Thank you,

**Vidal Cortes**  
*Environmental Engineer*  
D 1 714 435 6255  
M 1 949 400 0608

**CH2M**  
6 Hutton Centre Dr  
Suite 700  
Santa Ana, CA 92707  
[www.ch2m.com](http://www.ch2m.com) | [LinkedIn](#) | [Twitter](#) | [Facebook](#)

---

**From:** Marlon B. Cartin [<mailto:marlon@assetlaboratories.com>]  
**Sent:** Friday, April 07, 2017 1:54 PM  
**To:** Jablonski, Daniel/LAC <[Daniel.Jablonski@CH2M.com](mailto:Daniel.Jablonski@CH2M.com)>; Cortes, Vidal/SCO <[Vidal.Cortes@ch2m.com](mailto:Vidal.Cortes@ch2m.com)>; 'Molky Brar' <[molky@assetlaboratories.com](mailto:molky@assetlaboratories.com)>  
**Cc:** Carino, Vladimir/SCO <[Vladimir.Carino@CH2M.com](mailto:Vladimir.Carino@CH2M.com)>

**Subject:** RE: SFPP Norwalk Midpoint 040417 [EXTERNAL]

Not yet. Courier is on his way now to pick-up the sample. He should be there in 30 minutes. I'm really sorry Dan for what happened.

Thanks,

**Marlon B. Cartin**

Project Manager

Nevada: 3151 W. Post Road, Las Vegas, NV 89118

**P:** 702.307.2659 Ext. 410 | **F:** 702.307.2691 | **M:** 702.439.0421

---

**From:** Jablonski, Daniel/LAC [<mailto:Daniel.Jablonski@CH2M.com>]

**Sent:** Friday, April 07, 2017 1:48 PM

**To:** Marlon B. Cartin; Cortes, Vidal/SCO; 'Molky Brar'

**Cc:** Carino, Vladimir/SCO

**Subject:** RE: SFPP Norwalk Midpoint 040417

Can you confirm you have the effluent sample collected today too?  
I'll let you know about the mid

**Daniel Jablonski**

Senior Project Manager

**D** 213.228.8271

**M** 818.257.3630

**CH2M**

Los Angeles, California

[www.ch2m.com](http://www.ch2m.com) | [LinkedIn](#) | [Twitter](#) | [Facebook](#)

---

**From:** Marlon B. Cartin [<mailto:marlon@assetlaboratories.com>]

**Sent:** Friday, April 07, 2017 1:45 PM

**To:** Jablonski, Daniel/LAC <[Daniel.Jablonski@CH2M.com](mailto:Daniel.Jablonski@CH2M.com)>; Cortes, Vidal/SCO <[Vidal.Cortes@ch2m.com](mailto:Vidal.Cortes@ch2m.com)>; 'Molky Brar' <[molky@assetlaboratories.com](mailto:molky@assetlaboratories.com)>

**Cc:** Carino, Vladimir/SCO <[Vladimir.Carino@CH2M.com](mailto:Vladimir.Carino@CH2M.com)>

**Subject:** RE: SFPP Norwalk Midpoint 040417 [EXTERNAL]

Hi Dan,

Per conversation with you, we missed picking-up this sample on Tuesday. They went to the site today to pick-up the sample and we already have it. Do you still want us to proceed?

Thanks,

**Marlon B. Cartin**

Project Manager

Nevada: 3151 W. Post Road, Las Vegas, NV 89118

**P:** 702.307.2659 Ext. 410 | **F:** 702.307.2691 | **M:** 702.439.0421

---

**From:** Jablonski, Daniel/LAC [<mailto:Daniel.Jablonski@CH2M.com>]

**Sent:** Friday, April 07, 2017 11:26 AM

**To:** Cortes, Vidal/SCO; Marlon Cartin ; Molky Brar

**Cc:** Carino, Vladimir/SCO

**Subject:** RE: SFPP Norwalk Midpoint 040417

Can we get results by early afternoon?

James is getting samples now but please hold off on running TPH until we see the midpoint results.

**Daniel Jablonski**

*Senior Project Manager*

**D** 213.228.8271

**M** 818.257.3630

**CH2M**

Los Angeles, California

[www.ch2m.com](http://www.ch2m.com) | [LinkedIn](#) | [Twitter](#) | [Facebook](#)

---

**From:** Cortes, Vidal/SCO

**Sent:** Friday, April 07, 2017 8:43 AM

**To:** Marlon Cartin <[marlon@assetlaboratories.com](mailto:marlon@assetlaboratories.com)>; Molky Brar <[molky@assetlaboratories.com](mailto:molky@assetlaboratories.com)>

**Cc:** Jablonski, Daniel/LAC <[Daniel.Jablonski@CH2M.com](mailto:Daniel.Jablonski@CH2M.com)>; Carino, Vladimir/SCO <[Vladimir.Carino@CH2M.com](mailto:Vladimir.Carino@CH2M.com)>

**Subject:** RE: SFPP Norwalk Midpoint 040417

Marlon and Molky,

What is the status of this sample?

Thanks,

Vidal

---

**From:** Cortes, Vidal/SCO

**Sent:** Tuesday, April 04, 2017 9:01 AM

**To:** Dye, James ([James\\_Dye@kindermorgan.com](mailto:James_Dye@kindermorgan.com)) <[James\\_Dye@kindermorgan.com](mailto:James_Dye@kindermorgan.com)>

**Cc:** Jablonski, Daniel/LAC <[Daniel.Jablonski@CH2M.com](mailto:Daniel.Jablonski@CH2M.com)>; Marlon Cartin <[marlon@assetlaboratories.com](mailto:marlon@assetlaboratories.com)>; 'Molky Brar' <[molky@assetlaboratories.com](mailto:molky@assetlaboratories.com)>; Carino, Vladimir/SCO <[Vladimir.Carino@CH2M.com](mailto:Vladimir.Carino@CH2M.com)>

**Subject:** SFPP Norwalk Midpoint 040417

James,

For today's midpoint sampling we will only collect a sample from EFF\_POL1.

Marlon and Molky,

Please schedule a pick up for today's sample.

Thanks,

**Vidal Cortes**

*Environmental Engineer*

**D** 1 714 435 6255

**M** 1 949 400 0608

**CH2M**

# ASSET Laboratories

## WORK ORDER Summary

10-Apr-17

WorkOrder: N023765

Client ID: CH2HI03

Project: SFPP - Norwalk Site

QC Level: RTNE

Date Received: 4/7/2017

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N023765-001A	INF-04-07	4/7/2017 12:30:00 PM	4/14/2017	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			4/14/2017		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N023765-001B			4/14/2017		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			4/14/2017		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			4/14/2017		EPA 8015B	Total TPH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N023765-002A	FOLDER	4/14/2017	4/14/2017	Folder	Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB



800-322-5555 www.gso.com

**Ship From**  
ASSET LABORATORIES  
MOLKY BRAR  
11110 ARTESIA BLVD. SUITE B  
CERRITOS, CA 90703

Tracking #: 535680342

**SDS**



**Ship To**  
ATL INC  
MARLON CARTIN  
3151 W. POST RD.,  
LAS VEGAS, NV 89118

**LVS**  
**LAS VEGAS**

**A**

**COD:** \$0.00  
**Weight:** 0 lb(s)  
**Reference:**

**C89102A**

**Delivery Instructions:**  
HOLD FOR PICK UP  
**Signature Type:** NOT REQUIRED



65206278

Print Date: 4/7/2017 5:53 PM

**LABEL INSTRUCTIONS:**

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

2.80  
SR #2

July 06, 2017

Eric Davis  
CH2MHill  
1000 Wilshire Blvd.  
Los Angeles, CA 90017

TEL:

FAX:

Workorder No.: N024098

RE: SFPP - Norwalk

Attention: Eric Davis

Enclosed are the results for sample(s) received on May 04, 2017 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

This is an amended report. Please disregard all previous documentation that corresponds to the page(s) enclosed.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Puri Romualdo  
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories - Las Vegas.



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**CLIENT:** CH2MHill  
**Project:** SFPP - Norwalk  
**Lab Order:** N024098

**CASE NARRATIVE**

**SAMPLE RECEIVING/GENERAL COMMENTS:**

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples were analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

**Analytical Comments for EPA 8260B:**

Method Blank has hit for Methylene chloride above the reporting limit; however, samples are non-detect (ND) for this analyte.

Laboratory Control Sample (LCS) recovery biased high for Acetone. Sample results were non-detect (ND) for this analyte therefore reanalysis of the samples was not necessary.



# ASSET Laboratories

Date: 06-Jul-17

**CLIENT:** CH2MHill  
**Project:** SFPP - Norwalk  
**Lab Order:** N024098  
**Contract No:**

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N024098-001A	INF-05-04	Wastewater	5/4/2017 11:40:00 AM	5/4/2017	7/6/2017
N024098-001B	INF-05-04	Wastewater	5/4/2017 11:40:00 AM	5/4/2017	7/6/2017
N024098-002A	POST_OWS-05-04	Wastewater	5/4/2017 11:35:00 AM	5/4/2017	7/6/2017
N024098-002B	POST_OWS-05-04	Wastewater	5/4/2017 11:35:00 AM	5/4/2017	7/6/2017
N024098-003A	MP1-05-04	Wastewater	5/4/2017 11:30:00 AM	5/4/2017	7/6/2017
N024098-003B	MP1-05-04	Wastewater	5/4/2017 11:30:00 AM	5/4/2017	7/6/2017
N024098-004A	INF_FBRR-05-04	Wastewater	5/4/2017 11:25:00 AM	5/4/2017	7/6/2017
N024098-004B	INF_FBRR-05-04	Wastewater	5/4/2017 11:25:00 AM	5/4/2017	7/6/2017
N024098-005A	EFF_FBRR1-05-04	Wastewater	5/4/2017 11:10:00 AM	5/4/2017	7/6/2017
N024098-005B	EFF_FBRR1-05-04	Wastewater	5/4/2017 11:10:00 AM	5/4/2017	7/6/2017
N024098-006A	EFF_FBRR2-05-04	Wastewater	5/4/2017 11:05:00 AM	5/4/2017	7/6/2017
N024098-006B	EFF_FBRR2-05-04	Wastewater	5/4/2017 11:05:00 AM	5/4/2017	7/6/2017
N024098-007A	EFF_POL1-05-04	Wastewater	5/4/2017 11:00:00 AM	5/4/2017	7/6/2017
N024098-007B	EFF_POL1-05-04	Wastewater	5/4/2017 11:00:00 AM	5/4/2017	7/6/2017
N024098-008A	S2A-05-04	Wastewater	5/4/2017 11:20:00 AM	5/4/2017	7/6/2017
N024098-009A	S2B-05-04	Wastewater	5/4/2017 11:15:00 AM	5/4/2017	7/6/2017



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

**CLIENT:** CH2MHill  
**Lab Order:** N024098  
**Project:** SFPP - Norwalk  
**Lab ID:** N024098-001

**Client Sample ID:** INF-05-04  
**Collection Date:** 5/4/2017 11:40:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS8_170505A	QC Batch: R17VW062	PrepDate	Analyst: RB			
1,1,1,2-Tetrachloroethane	ND	0.066	1.0	ug/L	1	5/5/2017 03:11 PM
1,1,1-Trichloroethane	ND	0.068	1.0	ug/L	1	5/5/2017 03:11 PM
1,1,2,2-Tetrachloroethane	ND	0.031	1.0	ug/L	1	5/5/2017 03:11 PM
1,1,2-Trichloroethane	ND	0.062	1.0	ug/L	1	5/5/2017 03:11 PM
1,1-Dichloroethane	ND	0.022	0.50	ug/L	1	5/5/2017 03:11 PM
1,1-Dichloroethene	ND	0.087	1.0	ug/L	1	5/5/2017 03:11 PM
1,1-Dichloropropene	ND	0.044	1.0	ug/L	1	5/5/2017 03:11 PM
1,2,3-Trichlorobenzene	ND	0.056	1.0	ug/L	1	5/5/2017 03:11 PM
1,2,3-Trichloropropane	ND	0.059	1.0	ug/L	1	5/5/2017 03:11 PM
1,2,4-Trichlorobenzene	ND	0.060	1.0	ug/L	1	5/5/2017 03:11 PM
1,2,4-Trimethylbenzene	0.31	0.042	1.0	J ug/L	1	5/5/2017 03:11 PM
1,2-Dibromo-3-chloropropane	ND	0.047	2.0	ug/L	1	5/5/2017 03:11 PM
1,2-Dibromoethane	ND	0.057	1.0	ug/L	1	5/5/2017 03:11 PM
1,2-Dichlorobenzene	ND	0.040	1.0	ug/L	1	5/5/2017 03:11 PM
1,2-Dichloroethane	ND	0.064	0.50	ug/L	1	5/5/2017 03:11 PM
1,2-Dichloropropane	ND	0.062	1.0	ug/L	1	5/5/2017 03:11 PM
1,3,5-Trimethylbenzene	0.25	0.015	1.0	J ug/L	1	5/5/2017 03:11 PM
1,3-Dichlorobenzene	ND	0.057	1.0	ug/L	1	5/5/2017 03:11 PM
1,3-Dichloropropane	ND	0.040	1.0	ug/L	1	5/5/2017 03:11 PM
1,4-Dichlorobenzene	ND	0.030	1.0	ug/L	1	5/5/2017 03:11 PM
2,2-Dichloropropane	ND	0.026	1.0	ug/L	1	5/5/2017 03:11 PM
2-Butanone	ND	0.48	10	ug/L	1	5/5/2017 03:11 PM
2-Chlorotoluene	ND	0.040	1.0	ug/L	1	5/5/2017 03:11 PM
4-Chlorotoluene	ND	0.036	1.0	ug/L	1	5/5/2017 03:11 PM
4-Isopropyltoluene	ND	0.022	1.0	ug/L	1	5/5/2017 03:11 PM
4-Methyl-2-pentanone	ND	0.17	10	ug/L	1	5/5/2017 03:11 PM
Acetone	ND	1.1	10	ug/L	1	5/5/2017 03:11 PM
Benzene	0.18	0.036	1.0	J ug/L	1	5/5/2017 03:11 PM
Bromobenzene	ND	0.043	1.0	ug/L	1	5/5/2017 03:11 PM
Bromochloromethane	ND	0.22	1.0	ug/L	1	5/5/2017 03:11 PM
Bromodichloromethane	ND	0.031	1.0	ug/L	1	5/5/2017 03:11 PM
Bromoform	ND	0.32	1.0	ug/L	1	5/5/2017 03:11 PM
Bromomethane	ND	0.32	1.0	ug/L	1	5/5/2017 03:11 PM
Carbon disulfide	ND	0.025	1.0	ug/L	1	5/5/2017 03:11 PM
Carbon tetrachloride	ND	0.057	0.50	ug/L	1	5/5/2017 03:11 PM
Chlorobenzene	ND	0.036	1.0	ug/L	1	5/5/2017 03:11 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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ORELAP/NELAP Cert 4046

**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

**CLIENT:** CH2MHill  
**Lab Order:** N024098  
**Project:** SFPP - Norwalk  
**Lab ID:** N024098-001

**Client Sample ID:** INF-05-04  
**Collection Date:** 5/4/2017 11:40:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS8_170505A	QC Batch: R17VW062	PrepDate	Analyst: RB			
Chloroethane	ND	0.099	1.0	ug/L	1	5/5/2017 03:11 PM
Chloroform	0.080	0.036	1.0	J	1	5/5/2017 03:11 PM
Chloromethane	ND	0.12	1.0	ug/L	1	5/5/2017 03:11 PM
cis-1,2-Dichloroethene	ND	0.051	1.0	ug/L	1	5/5/2017 03:11 PM
cis-1,3-Dichloropropene	ND	0.044	1.0	ug/L	1	5/5/2017 03:11 PM
Di-isopropyl ether	ND	0.017	1.0	ug/L	1	5/5/2017 03:11 PM
Dibromochloromethane	ND	0.072	1.0	ug/L	1	5/5/2017 03:11 PM
Dibromomethane	ND	0.17	1.0	ug/L	1	5/5/2017 03:11 PM
Dichlorodifluoromethane	ND	0.070	1.0	ug/L	1	5/5/2017 03:11 PM
Ethyl tert-butyl ether	ND	0.039	1.0	ug/L	1	5/5/2017 03:11 PM
Ethylbenzene	ND	0.036	1.0	ug/L	1	5/5/2017 03:11 PM
Freon-113	ND	0.074	1.0	ug/L	1	5/5/2017 03:11 PM
Hexachlorobutadiene	ND	0.11	1.0	ug/L	1	5/5/2017 03:11 PM
Isopropylbenzene	ND	0.034	1.0	ug/L	1	5/5/2017 03:11 PM
m,p-Xylene	0.39	0.024	1.0	J	1	5/5/2017 03:11 PM
Methylene chloride	0.46	0.28	2.0	J	1	5/5/2017 03:11 PM
MTBE	1.4	0.062	1.0	ug/L	1	5/5/2017 03:11 PM
n-Butylbenzene	ND	0.031	1.0	ug/L	1	5/5/2017 03:11 PM
n-Propylbenzene	ND	0.018	1.0	ug/L	1	5/5/2017 03:11 PM
Naphthalene	1.7	0.048	1.0	ug/L	1	5/5/2017 03:11 PM
o-Xylene	0.13	0.042	1.0	J	1	5/5/2017 03:11 PM
sec-Butylbenzene	ND	0.025	1.0	ug/L	1	5/5/2017 03:11 PM
Styrene	ND	0.035	1.0	ug/L	1	5/5/2017 03:11 PM
Tert-amyl methyl ether	ND	0.039	1.0	ug/L	1	5/5/2017 03:11 PM
Tert-Butanol	320	0.30	5.0	ug/L	1	5/5/2017 03:11 PM
tert-Butylbenzene	ND	0.030	1.0	ug/L	1	5/5/2017 03:11 PM
Tetrachloroethene	ND	0.16	1.0	ug/L	1	5/5/2017 03:11 PM
Toluene	0.12	0.042	2.0	J	1	5/5/2017 03:11 PM
trans-1,2-Dichloroethene	ND	0.070	1.0	ug/L	1	5/5/2017 03:11 PM
trans-1,3-Dichloropropene	ND	0.039	1.0	ug/L	1	5/5/2017 03:11 PM
Trichloroethene	ND	0.12	1.0	ug/L	1	5/5/2017 03:11 PM
Trichlorofluoromethane	ND	0.031	1.0	ug/L	1	5/5/2017 03:11 PM
Vinyl chloride	ND	0.095	0.50	ug/L	1	5/5/2017 03:11 PM
Xylenes, Total	ND	1.5	2.0	ug/L	1	5/5/2017 03:11 PM
Surr: 1,2-Dichloroethane-d4	109	0	72-119	%REC	1	5/5/2017 03:11 PM
Surr: 4-Bromofluorobenzene	97.6	0	76-119	%REC	1	5/5/2017 03:11 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

<b>CLIENT:</b> CH2MHill	<b>Client Sample ID:</b> INF-05-04
<b>Lab Order:</b> N024098	<b>Collection Date:</b> 5/4/2017 11:40:00 AM
<b>Project:</b> SFPP - Norwalk	<b>Matrix:</b> WASTEWATER
<b>Lab ID:</b> N024098-001	

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS8_170505A</b>	QC Batch: <b>R17VW062</b>						Analyst: <b>RB</b>
Surr: Dibromofluoromethane	113	0	85-115		%REC	1	5/5/2017 03:11 PM
Surr: Toluene-d8	107	0	81-120		%REC	1	5/5/2017 03:11 PM

**TPH EXTRACTABLE BY GC/FID**

**EPA 3510C**

**EPA 8015B**

RunID: <b>NV00922-GC3_170505A</b>	QC Batch: <b>62144</b>					<b>5/5/2017</b>	Analyst: <b>JJS</b>
TPH-Diesel (C13-C22)	300	16	25		ug/L	1	5/5/2017 02:19 PM
TPH-Oil (C23-C36)	100	14	25		ug/L	1	5/5/2017 02:19 PM
Surr: Octacosane	99.2	0	26-152		%REC	1	5/5/2017 02:19 PM
Surr: p-Terphenyl	96.2	0	57-132		%REC	1	5/5/2017 02:19 PM

**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B**

RunID: <b>NV00922-GC4_170505A</b>	QC Batch: <b>E17VW043</b>						Analyst: <b>RB</b>
TPH-Gasoline (C4-C12)	20	16	50	J	ug/L	1	5/5/2017 05:32 PM
Surr: Chlorobenzene - d5	120	0	74-138		%REC	1	5/5/2017 05:32 PM

**TOTAL TPH**

**EPA 8015B**

RunID: <b>NV00922-GC3_170505A</b>	QC Batch: <b>R115066</b>						Analyst: <b>JJS</b>
Total TPH	430	16	50		ug/L	1	5/5/2017

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO Surrogate Diluted Out



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

**CLIENT:** CH2MHill  
**Lab Order:** N024098  
**Project:** SFPP - Norwalk  
**Lab ID:** N024098-002

**Client Sample ID:** POST\_OWS-05-04  
**Collection Date:** 5/4/2017 11:35:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS8_170505A</b>	QC Batch: <b>R17VW062</b>				PrepDate	Analyst: <b>RB</b>	
1,1-Dichloroethane	ND	0.022	0.50		ug/L	1	5/5/2017 02:45 PM
1,2-Dichloroethane	ND	0.064	0.50		ug/L	1	5/5/2017 02:45 PM
2-Butanone	ND	0.48	10		ug/L	1	5/5/2017 02:45 PM
Benzene	0.64	0.036	1.0	J	ug/L	1	5/5/2017 02:45 PM
Ethylbenzene	ND	0.036	1.0		ug/L	1	5/5/2017 02:45 PM
m,p-Xylene	2.4	0.024	1.0		ug/L	1	5/5/2017 02:45 PM
MTBE	3.9	0.062	1.0		ug/L	1	5/5/2017 02:45 PM
o-Xylene	0.38	0.042	1.0	J	ug/L	1	5/5/2017 02:45 PM
Tert-Butanol	53	0.30	5.0		ug/L	1	5/5/2017 02:45 PM
Toluene	0.080	0.042	2.0	J	ug/L	1	5/5/2017 02:45 PM
Xylenes, Total	2.8	1.5	2.0		ug/L	1	5/5/2017 02:45 PM
Surr: 1,2-Dichloroethane-d4	106	0	72-119		%REC	1	5/5/2017 02:45 PM
Surr: 4-Bromofluorobenzene	96.3	0	76-119		%REC	1	5/5/2017 02:45 PM
Surr: Dibromofluoromethane	109	0	85-115		%REC	1	5/5/2017 02:45 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	5/5/2017 02:45 PM

**TPH EXTRACTABLE BY GC/FID**

**EPA 3510C**

**EPA 8015B**

RunID: <b>NV00922-GC3_170505A</b>	QC Batch: <b>62144</b>				PrepDate	<b>5/5/2017</b>	Analyst: <b>JJS</b>
TPH-Diesel (C13-C22)	320	15	25		ug/L	1	5/5/2017 02:45 PM
TPH-Oil (C23-C36)	130	14	25		ug/L	1	5/5/2017 02:45 PM
Surr: Octacosane	96.0	0	26-152		%REC	1	5/5/2017 02:45 PM
Surr: p-Terphenyl	95.1	0	57-132		%REC	1	5/5/2017 02:45 PM

**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B**

RunID: <b>NV00922-GC4_170505A</b>	QC Batch: <b>E17VW043</b>				PrepDate	Analyst: <b>RB</b>	
TPH-Gasoline (C4-C12)	19	16	50	J	ug/L	1	5/5/2017 04:59 PM
Surr: Chlorobenzene - d5	111	0	74-138		%REC	1	5/5/2017 04:59 PM

**TOTAL TPH**

**EPA 8015B**

RunID: <b>NV00922-GC3_170505A</b>	QC Batch: <b>R115066</b>				PrepDate	Analyst: <b>JJS</b>	
Total TPH	470	16	50		ug/L	1	5/5/2017

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

**CLIENT:** CH2MHill  
**Lab Order:** N024098  
**Project:** SFPP - Norwalk  
**Lab ID:** N024098-003

**Client Sample ID:** MP1-05-04  
**Collection Date:** 5/4/2017 11:30:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS8_170505A	QC Batch: R17VW062	PrepDate			Analyst: RB
1,1-Dichloroethane	ND	0.022	0.50	ug/L	1 5/5/2017 06:44 PM
1,2-Dichloroethane	ND	0.064	0.50	ug/L	1 5/5/2017 06:44 PM
2-Butanone	ND	0.48	10	ug/L	1 5/5/2017 06:44 PM
Benzene	1.8	0.036	1.0	ug/L	1 5/5/2017 06:44 PM
Ethylbenzene	ND	0.036	1.0	ug/L	1 5/5/2017 06:44 PM
m,p-Xylene	ND	0.024	1.0	ug/L	1 5/5/2017 06:44 PM
MTBE	18	0.062	1.0	ug/L	1 5/5/2017 06:44 PM
o-Xylene	ND	0.042	1.0	ug/L	1 5/5/2017 06:44 PM
Tert-Butanol	ND	0.30	5.0	ug/L	1 5/5/2017 06:44 PM
Toluene	0.10	0.042	2.0	J ug/L	1 5/5/2017 06:44 PM
Xylenes, Total	ND	1.5	2.0	ug/L	1 5/5/2017 06:44 PM
Surr: 1,2-Dichloroethane-d4	108	0	72-119	%REC	1 5/5/2017 06:44 PM
Surr: 4-Bromofluorobenzene	93.4	0	76-119	%REC	1 5/5/2017 06:44 PM
Surr: Dibromofluoromethane	109	0	85-115	%REC	1 5/5/2017 06:44 PM
Surr: Toluene-d8	103	0	81-120	%REC	1 5/5/2017 06:44 PM

**TPH EXTRACTABLE BY GC/FID**

**EPA 3510C**

**EPA 8015B**

RunID: NV00922-GC3_170505A	QC Batch: 62144	PrepDate			5/5/2017	Analyst: JJS
TPH-Diesel (C13-C22)	ND	16	26	ug/L	1	5/5/2017 03:12 PM
TPH-Oil (C23-C36)	ND	14	26	ug/L	1	5/5/2017 03:12 PM
Surr: Octacosane	84.5	0	26-152	%REC	1	5/5/2017 03:12 PM
Surr: p-Terphenyl	83.2	0	57-132	%REC	1	5/5/2017 03:12 PM

**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B**

RunID: NV00922-GC4_170505A	QC Batch: E17VW043	PrepDate			Analyst: RB
TPH-Gasoline (C4-C12)	21	16	50	J ug/L	1 5/5/2017 04:26 PM
Surr: Chlorobenzene - d5	122	0	74-138	%REC	1 5/5/2017 04:26 PM

**TOTAL TPH**

**EPA 8015B**

RunID: NV00922-GC3_170505A	QC Batch: R115066	PrepDate			Analyst: JJS
Total TPH	21	16	50	J ug/L	1 5/5/2017

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

**CLIENT:** CH2MHill  
**Lab Order:** N024098  
**Project:** SFPP - Norwalk  
**Lab ID:** N024098-004

**Client Sample ID:** INF\_FBBR-05-04  
**Collection Date:** 5/4/2017 11:25:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS8_170505A	QC Batch: R17VW062				PrepDate	Analyst: RB	
1,1-Dichloroethane	ND	0.022	0.50		ug/L	1	5/5/2017 07:11 PM
1,2-Dichloroethane	ND	0.064	0.50		ug/L	1	5/5/2017 07:11 PM
2-Butanone	ND	0.48	10		ug/L	1	5/5/2017 07:11 PM
Benzene	ND	0.036	1.0		ug/L	1	5/5/2017 07:11 PM
Ethylbenzene	ND	0.036	1.0		ug/L	1	5/5/2017 07:11 PM
m,p-Xylene	ND	0.024	1.0		ug/L	1	5/5/2017 07:11 PM
MTBE	11	0.062	1.0		ug/L	1	5/5/2017 07:11 PM
o-Xylene	ND	0.042	1.0		ug/L	1	5/5/2017 07:11 PM
Tert-Butanol	ND	0.30	5.0		ug/L	1	5/5/2017 07:11 PM
Toluene	0.080	0.042	2.0	J	ug/L	1	5/5/2017 07:11 PM
Xylenes, Total	ND	1.5	2.0		ug/L	1	5/5/2017 07:11 PM
Surr: 1,2-Dichloroethane-d4	112	0	72-119		%REC	1	5/5/2017 07:11 PM
Surr: 4-Bromofluorobenzene	90.7	0	76-119		%REC	1	5/5/2017 07:11 PM
Surr: Dibromofluoromethane	114	0	85-115		%REC	1	5/5/2017 07:11 PM
Surr: Toluene-d8	105	0	81-120		%REC	1	5/5/2017 07:11 PM

**TPH EXTRACTABLE BY GC/FID**

**EPA 3510C**

**EPA 8015B**

RunID: NV00922-GC3_170505A	QC Batch: 62144				PrepDate	5/5/2017	Analyst: JJS
TPH-Diesel (C13-C22)	ND	16	26		ug/L	1	5/5/2017 03:38 PM
TPH-Oil (C23-C36)	ND	14	26		ug/L	1	5/5/2017 03:38 PM
Surr: Octacosane	93.3	0	26-152		%REC	1	5/5/2017 03:38 PM
Surr: p-Terphenyl	90.5	0	57-132		%REC	1	5/5/2017 03:38 PM

**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B**

RunID: NV00922-GC4_170505A	QC Batch: E17VW043				PrepDate	Analyst: RB	
TPH-Gasoline (C4-C12)	ND	16	50		ug/L	1	5/5/2017 01:37 PM
Surr: Chlorobenzene - d5	110	0	74-138		%REC	1	5/5/2017 01:37 PM

**TOTAL TPH**

**EPA 8015B**

RunID: NV00922-GC3_170505A	QC Batch: R115066				PrepDate	Analyst: JJS	
Total TPH	ND	16	50		ug/L	1	5/5/2017

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

**CLIENT:** CH2MHill  
**Lab Order:** N024098  
**Project:** SFPP - Norwalk  
**Lab ID:** N024098-005

**Client Sample ID:** EFF\_FBBR1-05-04  
**Collection Date:** 5/4/2017 11:10:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS8_170505A	QC Batch: R17VW062				PrepDate	Analyst: RB	
1,1-Dichloroethane	ND	0.022	0.50		ug/L	1	5/5/2017 12:32 PM
1,2-Dichloroethane	ND	0.064	0.50		ug/L	1	5/5/2017 12:32 PM
2-Butanone	ND	0.48	10		ug/L	1	5/5/2017 12:32 PM
Benzene	ND	0.036	1.0		ug/L	1	5/5/2017 12:32 PM
Ethylbenzene	ND	0.036	1.0		ug/L	1	5/5/2017 12:32 PM
m,p-Xylene	ND	0.024	1.0		ug/L	1	5/5/2017 12:32 PM
MTBE	ND	0.062	1.0		ug/L	1	5/5/2017 12:32 PM
o-Xylene	ND	0.042	1.0		ug/L	1	5/5/2017 12:32 PM
Tert-Butanol	ND	0.30	5.0		ug/L	1	5/5/2017 12:32 PM
Toluene	ND	0.042	2.0		ug/L	1	5/5/2017 12:32 PM
Xylenes, Total	ND	1.5	2.0		ug/L	1	5/5/2017 12:32 PM
Surr: 1,2-Dichloroethane-d4	111	0	72-119		%REC	1	5/5/2017 12:32 PM
Surr: 4-Bromofluorobenzene	95.6	0	76-119		%REC	1	5/5/2017 12:32 PM
Surr: Dibromofluoromethane	113	0	85-115		%REC	1	5/5/2017 12:32 PM
Surr: Toluene-d8	106	0	81-120		%REC	1	5/5/2017 12:32 PM

**TPH EXTRACTABLE BY GC/FID**

**EPA 3510C**

**EPA 8015B**

RunID: NV00922-GC3_170505A	QC Batch: 62144				PrepDate	5/5/2017	Analyst: JJS
TPH-Diesel (C13-C22)	ND	15	25		ug/L	1	5/5/2017 04:04 PM
TPH-Oil (C23-C36)	14	14	25	J	ug/L	1	5/5/2017 04:04 PM
Surr: Octacosane	99.5	0	26-152		%REC	1	5/5/2017 04:04 PM
Surr: p-Terphenyl	95.8	0	57-132		%REC	1	5/5/2017 04:04 PM

**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B**

RunID: NV00922-GC4_170505A	QC Batch: E17VW043				PrepDate	Analyst: RB	
TPH-Gasoline (C4-C12)	ND	16	50		ug/L	1	5/5/2017 11:58 AM
Surr: Chlorobenzene - d5	102	0	74-138		%REC	1	5/5/2017 11:58 AM

**TOTAL TPH**

**EPA 8015B**

RunID: NV00922-GC3_170505A	QC Batch: R115066				PrepDate	Analyst: JJS	
Total TPH	ND	16	50		ug/L	1	5/5/2017

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

**CLIENT:** CH2MHill  
**Lab Order:** N024098  
**Project:** SFPP - Norwalk  
**Lab ID:** N024098-006

**Client Sample ID:** EFF\_FBBR2-05-04  
**Collection Date:** 5/4/2017 11:05:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS8_170505A</b>	QC Batch: <b>R17VW062</b>				PrepDate	Analyst: <b>RB</b>	
1,1-Dichloroethane	ND	0.022	0.50		ug/L	1	5/5/2017 12:58 PM
1,2-Dichloroethane	ND	0.064	0.50		ug/L	1	5/5/2017 12:58 PM
2-Butanone	ND	0.48	10		ug/L	1	5/5/2017 12:58 PM
Benzene	ND	0.036	1.0		ug/L	1	5/5/2017 12:58 PM
Ethylbenzene	ND	0.036	1.0		ug/L	1	5/5/2017 12:58 PM
m,p-Xylene	ND	0.024	1.0		ug/L	1	5/5/2017 12:58 PM
MTBE	46	0.062	1.0		ug/L	1	5/5/2017 12:58 PM
o-Xylene	ND	0.042	1.0		ug/L	1	5/5/2017 12:58 PM
Tert-Butanol	ND	0.30	5.0		ug/L	1	5/5/2017 12:58 PM
Toluene	ND	0.042	2.0		ug/L	1	5/5/2017 12:58 PM
Xylenes, Total	ND	1.5	2.0		ug/L	1	5/5/2017 12:58 PM
Surr: 1,2-Dichloroethane-d4	110	0	72-119		%REC	1	5/5/2017 12:58 PM
Surr: 4-Bromofluorobenzene	92.6	0	76-119		%REC	1	5/5/2017 12:58 PM
Surr: Dibromofluoromethane	113	0	85-115		%REC	1	5/5/2017 12:58 PM
Surr: Toluene-d8	104	0	81-120		%REC	1	5/5/2017 12:58 PM

**TPH EXTRACTABLE BY GC/FID**

**EPA 3510C**

**EPA 8015B**

RunID: <b>NV00922-GC3_170505A</b>	QC Batch: <b>62144</b>				PrepDate	<b>5/5/2017</b>	Analyst: <b>JJS</b>
TPH-Diesel (C13-C22)	ND	15	25		ug/L	1	5/7/2017 08:21 PM
TPH-Oil (C23-C36)	ND	14	25		ug/L	1	5/7/2017 08:21 PM
Surr: Octacosane	97.5	0	26-152		%REC	1	5/7/2017 08:21 PM
Surr: p-Terphenyl	95.1	0	57-132		%REC	1	5/7/2017 08:21 PM

**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B**

RunID: <b>NV00922-GC4_170505A</b>	QC Batch: <b>E17VW043</b>				PrepDate	Analyst: <b>RB</b>	
TPH-Gasoline (C4-C12)	20	16	50	J	ug/L	1	5/5/2017 12:31 PM
Surr: Chlorobenzene - d5	104	0	74-138		%REC	1	5/5/2017 12:31 PM

**TOTAL TPH**

**EPA 8015B**

RunID: <b>NV00922-GC3_170505A</b>	QC Batch: <b>R115066</b>				PrepDate	Analyst: <b>JJS</b>	
Total TPH	20	16	50	J	ug/L	1	5/5/2017

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

**CLIENT:** CH2MHill  
**Lab Order:** N024098  
**Project:** SFPP - Norwalk  
**Lab ID:** N024098-007

**Client Sample ID:** EFF\_POL1-05-04  
**Collection Date:** 5/4/2017 11:00:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS8_170505A	QC Batch: R17VW062				PrepDate	Analyst: RB	
1,1-Dichloroethane	ND	0.022	0.50		ug/L	1	5/5/2017 01:25 PM
1,2-Dichloroethane	ND	0.064	0.50		ug/L	1	5/5/2017 01:25 PM
2-Butanone	ND	0.48	10		ug/L	1	5/5/2017 01:25 PM
Benzene	ND	0.036	1.0		ug/L	1	5/5/2017 01:25 PM
Ethylbenzene	ND	0.036	1.0		ug/L	1	5/5/2017 01:25 PM
m,p-Xylene	ND	0.024	1.0		ug/L	1	5/5/2017 01:25 PM
MTBE	ND	0.062	1.0		ug/L	1	5/5/2017 01:25 PM
o-Xylene	ND	0.042	1.0		ug/L	1	5/5/2017 01:25 PM
Tert-Butanol	ND	0.30	5.0		ug/L	1	5/5/2017 01:25 PM
Toluene	ND	0.042	2.0		ug/L	1	5/5/2017 01:25 PM
Xylenes, Total	ND	1.5	2.0		ug/L	1	5/5/2017 01:25 PM
Surr: 1,2-Dichloroethane-d4	112	0	72-119		%REC	1	5/5/2017 01:25 PM
Surr: 4-Bromofluorobenzene	93.4	0	76-119		%REC	1	5/5/2017 01:25 PM
Surr: Dibromofluoromethane	113	0	85-115		%REC	1	5/5/2017 01:25 PM
Surr: Toluene-d8	105	0	81-120		%REC	1	5/5/2017 01:25 PM

**TPH EXTRACTABLE BY GC/FID**

**EPA 3510C**

**EPA 8015B**

RunID: NV00922-GC3_170505A	QC Batch: 62144				PrepDate	5/5/2017	Analyst: JJS
TPH-Diesel (C13-C22)	ND	16	25		ug/L	1	5/7/2017 08:47 PM
TPH-Oil (C23-C36)	ND	14	25		ug/L	1	5/7/2017 08:47 PM
Surr: Octacosane	99.6	0	26-152		%REC	1	5/7/2017 08:47 PM
Surr: p-Terphenyl	97.1	0	57-132		%REC	1	5/7/2017 08:47 PM

**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B**

RunID: NV00922-GC4_170505A	QC Batch: E17VW043				PrepDate	Analyst: RB	
TPH-Gasoline (C4-C12)	ND	16	50		ug/L	1	5/5/2017 01:04 PM
Surr: Chlorobenzene - d5	110	0	74-138		%REC	1	5/5/2017 01:04 PM

**TOTAL TPH**

**EPA 8015B**

RunID: NV00922-GC3_170505A	QC Batch: R115066				PrepDate	Analyst: JJS	
Total TPH	ND	16	50		ug/L	1	5/5/2017

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

**CLIENT:** CH2MHill  
**Lab Order:** N024098  
**Project:** SFPP - Norwalk  
**Lab ID:** N024098-008

**Client Sample ID:** S2A-05-04  
**Collection Date:** 5/4/2017 11:20:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS8_170505A	QC Batch: R17VW062	PrepDate	Analyst: RB			
1,1-Dichloroethane	ND	0.022	0.50	ug/L	1	5/5/2017 04:58 PM
1,2-Dichloroethane	ND	0.064	0.50	ug/L	1	5/5/2017 04:58 PM
2-Butanone	ND	0.48	10	ug/L	1	5/5/2017 04:58 PM
Benzene	ND	0.036	1.0	ug/L	1	5/5/2017 04:58 PM
Ethylbenzene	ND	0.036	1.0	ug/L	1	5/5/2017 04:58 PM
m,p-Xylene	ND	0.024	1.0	ug/L	1	5/5/2017 04:58 PM
MTBE	170	0.62	10	ug/L	10	5/5/2017 03:38 PM
o-Xylene	ND	0.042	1.0	ug/L	1	5/5/2017 04:58 PM
Tert-Butanol	ND	0.30	5.0	ug/L	1	5/5/2017 04:58 PM
Toluene	ND	0.042	2.0	ug/L	1	5/5/2017 04:58 PM
Xylenes, Total	ND	1.5	2.0	ug/L	1	5/5/2017 04:58 PM
Surr: 1,2-Dichloroethane-d4	109	0	72-119	%REC	10	5/5/2017 03:38 PM
Surr: 1,2-Dichloroethane-d4	106	0	72-119	%REC	1	5/5/2017 04:58 PM
Surr: 4-Bromofluorobenzene	92.8	0	76-119	%REC	10	5/5/2017 03:38 PM
Surr: 4-Bromofluorobenzene	93.1	0	76-119	%REC	1	5/5/2017 04:58 PM
Surr: Dibromofluoromethane	108	0	85-115	%REC	1	5/5/2017 04:58 PM
Surr: Dibromofluoromethane	111	0	85-115	%REC	10	5/5/2017 03:38 PM
Surr: Toluene-d8	101	0	81-120	%REC	1	5/5/2017 04:58 PM
Surr: Toluene-d8	102	0	81-120	%REC	10	5/5/2017 03:38 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit S Spike/Surrogate outside of limits due to matrix interference  
Results are wet unless otherwise specified DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 06-Jul-17

<b>CLIENT:</b> CH2MHill	<b>Client Sample ID:</b> S2B-05-04
<b>Lab Order:</b> N024098	<b>Collection Date:</b> 5/4/2017 11:15:00 AM
<b>Project:</b> SFPP - Norwalk	<b>Matrix:</b> WASTEWATER
<b>Lab ID:</b> N024098-009	

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS8_170505A</b>	QC Batch: <b>R17VW062</b>	PrepDate	Analyst: <b>RB</b>			
1,1-Dichloroethane	ND	0.022	0.50	ug/L	1	5/5/2017 04:31 PM
1,2-Dichloroethane	ND	0.064	0.50	ug/L	1	5/5/2017 04:31 PM
2-Butanone	ND	0.48	10	ug/L	1	5/5/2017 04:31 PM
Benzene	ND	0.036	1.0	ug/L	1	5/5/2017 04:31 PM
Ethylbenzene	ND	0.036	1.0	ug/L	1	5/5/2017 04:31 PM
m,p-Xylene	ND	0.024	1.0	ug/L	1	5/5/2017 04:31 PM
MTBE	240	0.62	10	ug/L	10	5/5/2017 04:04 PM
o-Xylene	ND	0.042	1.0	ug/L	1	5/5/2017 04:31 PM
Tert-Butanol	16	0.30	5.0	ug/L	1	5/5/2017 04:31 PM
Toluene	ND	0.042	2.0	ug/L	1	5/5/2017 04:31 PM
Xylenes, Total	ND	1.5	2.0	ug/L	1	5/5/2017 04:31 PM
Surr: 1,2-Dichloroethane-d4	108	0	72-119	%REC	10	5/5/2017 04:04 PM
Surr: 1,2-Dichloroethane-d4	111	0	72-119	%REC	1	5/5/2017 04:31 PM
Surr: 4-Bromofluorobenzene	95.4	0	76-119	%REC	10	5/5/2017 04:04 PM
Surr: 4-Bromofluorobenzene	95.4	0	76-119	%REC	1	5/5/2017 04:31 PM
Surr: Dibromofluoromethane	112	0	85-115	%REC	1	5/5/2017 04:31 PM
Surr: Dibromofluoromethane	109	0	85-115	%REC	10	5/5/2017 04:04 PM
Surr: Toluene-d8	106	0	81-120	%REC	1	5/5/2017 04:31 PM
Surr: Toluene-d8	103	0	81-120	%REC	10	5/5/2017 04:04 PM

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO Surrogate Diluted Out



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**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

**ANALYTICAL QC SUMMARY REPORT**

**TestCode: 8015\_W\_FP\_SFPP**

Sample ID <b>MB-62144</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_FP_</b>	Units: <b>ug/L</b>	Prep Date: <b>5/5/2017</b>	RunNo: <b>115066</b>						
Client ID: <b>PBW</b>	Batch ID: <b>62144</b>	TestNo: <b>EPA 8015B EPA 3510C</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636764</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C13-C22)	ND	25									
TPH-Oil (C23-C36)	15.229	25									J
Surr: Octacosane	74.826		80.00		93.5	26	152				
Surr: p-Terphenyl	73.509		80.00		91.9	57	132				

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_SFPPTOT**

Sample ID <b>MB-R115066</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_SFP</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115066</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R115066</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2637319</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total TPH	ND	50									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015GAS\_WSFPP**

Sample ID <b>E170505LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8015GAS_W</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115059</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>E17VW043</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636698</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	914.000	50	1000	0	91.4	67	136				
Surr: Chlorobenzene - d5	50717.000		50000		101	74	138				

Sample ID <b>E170505MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8015GAS_W</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115059</b>						
Client ID: <b>PBW</b>	Batch ID: <b>E17VW043</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636700</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	ND	50									
Surr: Chlorobenzene - d5	55993.000		50000		112	74	138				

Sample ID <b>N024098-004AMS</b>	SampType: <b>MS</b>	TestCode: <b>8015GAS_W</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115059</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>E17VW043</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636706</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	901.000	50	1000	0	90.1	67	136				
Surr: Chlorobenzene - d5	49849.000		50000		99.7	74	138				

Sample ID <b>N024098-004AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015GAS_W</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115059</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>E17VW043</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636707</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	942.000	50	1000	0	94.2	67	136	901.0	4.45	30	
Surr: Chlorobenzene - d5	48433.000		50000		96.9	74	138		0	0	

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
<b>R170505LCS</b>	<b>LCS</b>	<b>8260_WP_SF</b>	<b>ug/L</b>		<b>115072</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R17VW062</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636958</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	20.970	1.0	20.00	0	105	81	129				
1,1,1-Trichloroethane	21.220	1.0	20.00	0	106	67	132				
1,1,2,2-Tetrachloroethane	20.510	1.0	20.00	0	103	63	128				
1,1,2-Trichloroethane	20.260	1.0	20.00	0	101	75	125				
1,1-Dichloroethane	20.000	0.50	20.00	0	100	69	133				
1,1-Dichloroethene	21.090	1.0	20.00	0	105	68	130				
1,1-Dichloropropene	23.070	1.0	20.00	0	115	73	132				
1,2,3-Trichlorobenzene	20.930	1.0	20.00	0	105	67	137				
1,2,3-Trichloropropane	20.510	1.0	20.00	0	103	73	124				
1,2,4-Trichlorobenzene	20.000	1.0	20.00	0	100	66	134				
1,2,4-Trimethylbenzene	23.450	1.0	20.00	0	117	74	132				
1,2-Dibromo-3-chloropropane	19.090	2.0	20.00	0	95.4	50	132				
1,2-Dibromoethane	21.590	1.0	20.00	0	108	80	121				
1,2-Dichlorobenzene	22.090	1.0	20.00	0	110	71	122				
1,2-Dichloroethane	20.060	0.50	20.00	0	100	69	132				
1,2-Dichloropropane	19.950	1.0	20.00	0	99.8	75	125				
1,3,5-Trimethylbenzene	23.110	1.0	20.00	0	116	74	131				
1,3-Dichlorobenzene	21.420	1.0	20.00	0	107	75	124				
1,3-Dichloropropane	21.610	1.0	20.00	0	108	73	126				
1,4-Dichlorobenzene	20.450	1.0	20.00	0	102	74	123				
2,2-Dichloropropane	20.860	1.0	20.00	0	104	69	137				
2-Butanone	232.670	10	200.0	0	116	49	136				
2-Chlorotoluene	21.080	1.0	20.00	0	105	73	126				
4-Chlorotoluene	22.470	1.0	20.00	0	112	74	128				
4-Isopropyltoluene	24.170	1.0	20.00	0	121	73	130				
4-Methyl-2-pentanone	210.790	10	200.0	0	105	58	134				
Acetone	291.770	10	200.0	0	146	40	135				S
Benzene	20.880	1.0	20.00	0	104	81	122				
Bromobenzene	21.360	1.0	20.00	0	107	76	124				
Bromochloromethane	20.850	1.0	20.00	0	104	65	129				

**Qualifiers:**

- B Analyte detected in the associated Method Blank
  - J Analyte detected below quantitation limits
  - S Spike/Surrogate outside of limits due to matrix interference
  - E Value above quantitation range
  - ND Not Detected at the Reporting Limit
  - DO Surrogate Diluted Out
  - H Holding times for preparation or analysis exceeded
  - R RPD outside accepted recovery limits
- Calculations are based on raw values

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
R170505LCS	LCS	8260_WP_SF	ug/L		115072						
Client ID: LCSW	Batch ID: R17VW062	TestNo: EPA 8260B		Analysis Date: 5/5/2017	SeqNo: 2636958						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	19.540	1.0	20.00	0	97.7	76	121				
Bromoform	21.010	1.0	20.00	0	105	69	128				
Bromomethane	20.310	1.0	20.00	0	102	53	141				
Carbon disulfide	16.580	1.0	20.00	0	82.9	75	125				
Carbon tetrachloride	21.840	0.50	20.00	0	109	66	138				
Chlorobenzene	21.590	1.0	20.00	0	108	81	122				
Chloroethane	26.360	1.0	20.00	0	132	58	133				
Chloroform	19.270	1.0	20.00	0	96.4	69	128				
Chloromethane	15.700	1.0	20.00	0	78.5	56	131				
cis-1,2-Dichloroethene	20.850	1.0	20.00	0	104	72	126				
cis-1,3-Dichloropropene	21.870	1.0	20.00	0	109	69	131				
Di-isopropyl ether	18.540	1.0	20.00	0	92.7	70	130				
Dibromochloromethane	20.680	1.0	20.00	0	103	66	133				
Dibromomethane	20.210	1.0	20.00	0	101	76	125				
Dichlorodifluoromethane	18.880	1.0	20.00	0	94.4	53	153				
Ethyl tert-butyl ether	18.060	1.0	20.00	0	90.3	70	130				
Ethylbenzene	21.460	1.0	20.00	0	107	73	127				
Freon-113	17.850	1.0	20.00	0	89.2	75	125				
Hexachlorobutadiene	22.590	1.0	20.00	0	113	67	131				
Isopropylbenzene	19.470	1.0	20.00	0	97.4	75	127				
m,p-Xylene	45.780	1.0	40.00	0	114	76	128				
Methylene chloride	23.160	2.0	20.00	0	116	63	137				B
MTBE	18.970	1.0	20.00	0	94.8	65	123				
n-Butylbenzene	21.660	1.0	20.00	0	108	69	137				
n-Propylbenzene	22.830	1.0	20.00	0	114	72	129				
Naphthalene	18.630	1.0	20.00	0	93.2	54	138				
o-Xylene	22.610	1.0	20.00	0	113	80	121				
sec-Butylbenzene	23.350	1.0	20.00	0	117	72	127				
Styrene	20.250	1.0	20.00	0	101	65	134				
Tert-amyl methyl ether	20.590	1.0	20.00	0	103	70	130				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
<b>R170505LCS</b>	<b>LCS</b>	<b>8260_WP_SF</b>	<b>ug/L</b>		<b>115072</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R17VW062</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636958</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tert-Butanol	106.090	5.0	100.0	0	106	70	130				
tert-Butylbenzene	23.730	1.0	20.00	0	119	70	129				
Tetrachloroethene	22.330	1.0	20.00	0	112	66	128				
Toluene	20.780	2.0	20.00	0	104	77	122				
trans-1,2-Dichloroethene	20.910	1.0	20.00	0	105	63	137				
trans-1,3-Dichloropropene	21.460	1.0	20.00	0	107	59	135				
Trichloroethene	21.530	1.0	20.00	0	108	70	127				
Trichlorofluoromethane	22.750	1.0	20.00	0	114	57	129				
Vinyl chloride	19.290	0.50	20.00	0	96.5	50	134				
Xylenes, Total	68.390	2.0	60.00	0	114	75	125				
Surr: 1,2-Dichloroethane-d4	24.510		25.00		98.0	72	119				
Surr: 4-Bromofluorobenzene	26.250		25.00		105	76	119				
Surr: Dibromofluoromethane	25.830		25.00		103	85	115				
Surr: Toluene-d8	25.550		25.00		102	81	120				

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
<b>R170505MB2</b>	<b>MBLK</b>	<b>8260_WP_SF</b>	<b>ug/L</b>		<b>115072</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R17VW062</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636978</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	1.0									
1,1-Dichloropropene	ND	1.0									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,3-Trichloropropane	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									

**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
<b>R170505MB2</b>	<b>MBLK</b>	<b>8260_WP_SF</b>	<b>ug/L</b>		<b>115072</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R17VW062</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636978</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,3-Dichloropropane	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2,2-Dichloropropane	ND	1.0									
2-Butanone	ND	10									
2-Chlorotoluene	ND	1.0									
4-Chlorotoluene	ND	1.0									
4-Isopropyltoluene	ND	1.0									
4-Methyl-2-pentanone	ND	10									
Acetone	ND	10									
Benzene	ND	1.0									
Bromobenzene	ND	1.0									
Bromochloromethane	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	0.130	1.0									J
Chloromethane	0.140	1.0									J
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
<b>R170505MB2</b>	<b>MBLK</b>	<b>8260_WP_SF</b>	<b>ug/L</b>		<b>115072</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R17VW062</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636978</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-isopropyl ether	ND	1.0									
Dibromochloromethane	ND	1.0									
Dibromomethane	ND	1.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl tert-butyl ether	ND	1.0									
Ethylbenzene	ND	1.0									
Freon-113	ND	1.0									
Hexachlorobutadiene	ND	1.0									
Isopropylbenzene	ND	1.0									
m,p-Xylene	ND	1.0									
Methylene chloride	2.210	2.0									
MTBE	ND	1.0									
n-Butylbenzene	ND	1.0									
n-Propylbenzene	ND	1.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
sec-Butylbenzene	ND	1.0									
Styrene	ND	1.0									
Tert-amyl methyl ether	ND	1.0									
Tert-Butanol	ND	5.0									
tert-Butylbenzene	ND	1.0									
Tetrachloroethene	ND	1.0									
Toluene	0.100	2.0									J
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	2.0									
Surr: 1,2-Dichloroethane-d4	25.830		25.00		103	72	119				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID <b>R170505MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115072</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R17VW062</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636978</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	23.310		25.00		93.2	76	119				
Surr: Dibromofluoromethane	26.410		25.00		106	85	115				
Surr: Toluene-d8	25.180		25.00		101	81	120				

Sample ID <b>N024098-007AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115072</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R17VW062</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636991</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	20.390	1.0	20.00	0	102	81	129				
1,1,1-Trichloroethane	22.550	1.0	20.00	0	113	67	132				
1,1,2,2-Tetrachloroethane	20.130	1.0	20.00	0	101	63	128				
1,1,2-Trichloroethane	20.660	1.0	20.00	0	103	75	125				
1,1-Dichloroethane	20.460	0.50	20.00	0	102	69	133				
1,1-Dichloroethene	21.530	1.0	20.00	0	108	68	130				
1,1-Dichloropropene	23.750	1.0	20.00	0	119	73	132				
1,2,3-Trichlorobenzene	19.330	1.0	20.00	0	96.7	67	137				
1,2,3-Trichloropropane	19.860	1.0	20.00	0	99.3	73	124				
1,2,4-Trichlorobenzene	18.260	1.0	20.00	0	91.3	66	134				
1,2,4-Trimethylbenzene	22.200	1.0	20.00	0	111	74	132				
1,2-Dibromo-3-chloropropane	18.470	2.0	20.00	0	92.4	50	132				
1,2-Dibromoethane	21.950	1.0	20.00	0	110	80	121				
1,2-Dichlorobenzene	21.320	1.0	20.00	0	107	71	122				
1,2-Dichloroethane	20.280	0.50	20.00	0	101	69	132				
1,2-Dichloropropane	20.030	1.0	20.00	0	100	75	125				
1,3,5-Trimethylbenzene	22.210	1.0	20.00	0	111	74	131				
1,3-Dichlorobenzene	20.830	1.0	20.00	0	104	75	124				
1,3-Dichloropropane	21.600	1.0	20.00	0	108	73	126				
1,4-Dichlorobenzene	20.370	1.0	20.00	0	102	74	123				
2,2-Dichloropropane	21.270	1.0	20.00	0	106	69	137				
2-Butanone	170.850	10	200.0	0	85.4	49	136				

**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	N024098-007AMS	SampType: MS	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115072					
Client ID:	ZZZZZZ	Batch ID:	R17VW062	TestNo:	EPA 8260B	Analysis Date:	5/5/2017	SeqNo:	2636991		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	20.570	1.0	20.00	0	103	73	126				
4-Chlorotoluene	21.470	1.0	20.00	0	107	74	128				
4-Isopropyltoluene	23.230	1.0	20.00	0	116	73	130				
4-Methyl-2-pentanone	213.740	10	200.0	0	107	58	134				
Acetone	152.580	10	200.0	0	76.3	40	135				
Benzene	21.390	1.0	20.00	0	107	81	122				
Bromobenzene	20.610	1.0	20.00	0	103	76	124				
Bromochloromethane	21.420	1.0	20.00	0	107	65	129				
Bromodichloromethane	19.940	1.0	20.00	0	99.7	76	121				
Bromoform	20.120	1.0	20.00	0	101	69	128				
Bromomethane	21.680	1.0	20.00	0	108	53	141				
Carbon disulfide	17.100	1.0	20.00	0	85.5	75	125				
Carbon tetrachloride	22.900	0.50	20.00	0	114	66	138				
Chlorobenzene	21.130	1.0	20.00	0	106	81	122				
Chloroethane	26.110	1.0	20.00	0	131	58	133				
Chloroform	19.840	1.0	20.00	0	99.2	69	128				
Chloromethane	16.670	1.0	20.00	0	83.4	56	131				
cis-1,2-Dichloroethene	21.560	1.0	20.00	0	108	72	126				
cis-1,3-Dichloropropene	21.330	1.0	20.00	0	107	69	131				
Di-isopropyl ether	18.680	1.0	20.00	0	93.4	70	130				
Dibromochloromethane	20.120	1.0	20.00	0	101	66	133				
Dibromomethane	20.630	1.0	20.00	0	103	76	125				
Dichlorodifluoromethane	19.810	1.0	20.00	0	99.0	53	153				
Ethyl tert-butyl ether	18.320	1.0	20.00	0	91.6	70	130				
Ethylbenzene	21.510	1.0	20.00	0	108	73	127				
Freon-113	19.190	1.0	20.00	0	96.0	75	125				
Hexachlorobutadiene	22.030	1.0	20.00	0	110	67	131				
Isopropylbenzene	18.810	1.0	20.00	0	94.1	75	127				
m,p-Xylene	45.780	1.0	40.00	0	114	76	128				
Methylene chloride	21.940	2.0	20.00	0.5200	107	63	137				B

**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	SampType: MS	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115072						
Client ID: ZZZZZZ	Batch ID: R17VW062	TestNo: EPA 8260B		Analysis Date: 5/5/2017	SeqNo: 2636991						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	19.360	1.0	20.00	0	96.8	65	123				
n-Butylbenzene	21.210	1.0	20.00	0	106	69	137				
n-Propylbenzene	22.460	1.0	20.00	0	112	72	129				
Naphthalene	16.540	1.0	20.00	0	82.7	54	138				
o-Xylene	22.120	1.0	20.00	0	111	80	121				
sec-Butylbenzene	23.090	1.0	20.00	0	115	72	127				
Styrene	18.970	1.0	20.00	0	94.8	65	134				
Tert-amyl methyl ether	20.400	1.0	20.00	0	102	70	130				
Tert-Butanol	104.660	5.0	100.0	0	105	70	130				
tert-Butylbenzene	23.190	1.0	20.00	0	116	70	129				
Tetrachloroethene	23.040	1.0	20.00	0	115	66	128				
Toluene	21.510	2.0	20.00	0	108	77	122				
trans-1,2-Dichloroethene	21.280	1.0	20.00	0	106	63	137				
trans-1,3-Dichloropropene	21.480	1.0	20.00	0	107	59	135				
Trichloroethene	22.030	1.0	20.00	0	110	70	127				
Trichlorofluoromethane	24.330	1.0	20.00	0	122	57	129				
Vinyl chloride	20.060	0.50	20.00	0	100	50	134				
Xylenes, Total	67.900	2.0	60.00	0	113	75	125				
Surr: 1,2-Dichloroethane-d4	25.810		25.00		103	72	119				
Surr: 4-Bromofluorobenzene	26.250		25.00		105	76	119				
Surr: Dibromofluoromethane	26.600		25.00		106	85	115				
Surr: Toluene-d8	26.120		25.00		104	81	120				

Sample ID	SampType: MSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115072						
Client ID: ZZZZZZ	Batch ID: R17VW062	TestNo: EPA 8260B		Analysis Date: 5/5/2017	SeqNo: 2636992						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	20.270	1.0	20.00	0	101	81	129	20.39	0.590	20	
1,1,1-Trichloroethane	20.680	1.0	20.00	0	103	67	132	22.55	8.65	20	
1,1,2,2-Tetrachloroethane	20.110	1.0	20.00	0	101	63	128	20.13	0.0994	20	

**Qualifiers:**

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| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	N024098-007AMSD	SampType: MSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115072					
Client ID:	ZZZZZZ	Batch ID: R17VW062	TestNo: EPA 8260B	Analysis Date: 5/5/2017	SeqNo: 2636992						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	20.400	1.0	20.00	0	102	75	125	20.66	1.27	20	
1,1-Dichloroethane	19.730	0.50	20.00	0	98.6	69	133	20.46	3.63	20	
1,1-Dichloroethene	20.220	1.0	20.00	0	101	68	130	21.53	6.28	20	
1,1-Dichloropropene	22.530	1.0	20.00	0	113	73	132	23.75	5.27	20	
1,2,3-Trichlorobenzene	20.150	1.0	20.00	0	101	67	137	19.33	4.15	20	
1,2,3-Trichloropropane	19.950	1.0	20.00	0	99.8	73	124	19.86	0.452	20	
1,2,4-Trichlorobenzene	19.040	1.0	20.00	0	95.2	66	134	18.26	4.18	20	
1,2,4-Trimethylbenzene	21.130	1.0	20.00	0	106	74	132	22.20	4.94	20	
1,2-Dibromo-3-chloropropane	18.970	2.0	20.00	0	94.8	50	132	18.47	2.67	20	
1,2-Dibromoethane	21.750	1.0	20.00	0	109	80	121	21.95	0.915	20	
1,2-Dichlorobenzene	21.560	1.0	20.00	0	108	71	122	21.32	1.12	20	
1,2-Dichloroethane	20.130	0.50	20.00	0	101	69	132	20.28	0.742	20	
1,2-Dichloropropane	19.730	1.0	20.00	0	98.6	75	125	20.03	1.51	20	
1,3,5-Trimethylbenzene	21.500	1.0	20.00	0	108	74	131	22.21	3.25	20	
1,3-Dichlorobenzene	20.690	1.0	20.00	0	103	75	124	20.83	0.674	20	
1,3-Dichloropropane	21.080	1.0	20.00	0	105	73	126	21.60	2.44	20	
1,4-Dichlorobenzene	20.440	1.0	20.00	0	102	74	123	20.37	0.343	20	
2,2-Dichloropropane	19.510	1.0	20.00	0	97.6	69	137	21.27	8.63	20	
2-Butanone	165.070	10	200.0	0	82.5	49	136	170.8	3.44	20	
2-Chlorotoluene	20.310	1.0	20.00	0	102	73	126	20.57	1.27	20	
4-Chlorotoluene	21.300	1.0	20.00	0	106	74	128	21.47	0.795	20	
4-Isopropyltoluene	22.490	1.0	20.00	0	112	73	130	23.23	3.24	20	
4-Methyl-2-pentanone	210.280	10	200.0	0	105	58	134	213.7	1.63	20	
Acetone	148.830	10	200.0	0	74.4	40	135	152.6	2.49	20	
Benzene	20.570	1.0	20.00	0	103	81	122	21.39	3.91	20	
Bromobenzene	20.690	1.0	20.00	0	103	76	124	20.61	0.387	20	
Bromochloromethane	21.040	1.0	20.00	0	105	65	129	21.42	1.79	20	
Bromodichloromethane	19.240	1.0	20.00	0	96.2	76	121	19.94	3.57	20	
Bromoform	20.380	1.0	20.00	0	102	69	128	20.12	1.28	20	
Bromomethane	21.130	1.0	20.00	0	106	53	141	21.68	2.57	20	

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	N024098-007AMSD	SampType: MSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115072					
Client ID:	ZZZZZZ	Batch ID:	R17VW062	TestNo:	EPA 8260B	Analysis Date:	5/5/2017	SeqNo:	2636992		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon disulfide	16.190	1.0	20.00	0	81.0	75	125	17.10	5.47	20	
Carbon tetrachloride	20.890	0.50	20.00	0	104	66	138	22.90	9.18	20	
Chlorobenzene	20.750	1.0	20.00	0	104	81	122	21.13	1.81	20	
Chloroethane	25.190	1.0	20.00	0	126	58	133	26.11	3.59	20	
Chloroform	19.020	1.0	20.00	0	95.1	69	128	19.84	4.22	20	
Chloromethane	15.930	1.0	20.00	0	79.6	56	131	16.67	4.54	20	
cis-1,2-Dichloroethene	18.130	1.0	20.00	0	90.7	72	126	21.56	17.3	20	
cis-1,3-Dichloropropene	21.060	1.0	20.00	0	105	69	131	21.33	1.27	20	
Di-isopropyl ether	18.290	1.0	20.00	0	91.4	70	130	18.68	2.11	20	
Dibromochloromethane	20.120	1.0	20.00	0	101	66	133	20.12	0	20	
Dibromomethane	20.350	1.0	20.00	0	102	76	125	20.63	1.37	20	
Dichlorodifluoromethane	18.230	1.0	20.00	0	91.2	53	153	19.81	8.31	20	
Ethyl tert-butyl ether	17.690	1.0	20.00	0	88.4	70	130	18.32	3.50	20	
Ethylbenzene	20.730	1.0	20.00	0	104	73	127	21.51	3.69	20	
Freon-113	17.010	1.0	20.00	0	85.0	75	125	19.19	12.0	20	
Hexachlorobutadiene	21.150	1.0	20.00	0	106	67	131	22.03	4.08	20	
Isopropylbenzene	17.950	1.0	20.00	0	89.8	75	127	18.81	4.68	20	
m,p-Xylene	43.600	1.0	40.00	0	109	76	128	45.78	4.88	20	
Methylene chloride	22.350	2.0	20.00	0.5200	109	63	137	21.94	1.85	20	B
MTBE	18.780	1.0	20.00	0	93.9	65	123	19.36	3.04	20	
n-Butylbenzene	20.360	1.0	20.00	0	102	69	137	21.21	4.09	20	
n-Propylbenzene	21.550	1.0	20.00	0	108	72	129	22.46	4.14	20	
Naphthalene	17.020	1.0	20.00	0	85.1	54	138	16.54	2.86	20	
o-Xylene	21.480	1.0	20.00	0	107	80	121	22.12	2.94	20	
sec-Butylbenzene	22.080	1.0	20.00	0	110	72	127	23.09	4.47	20	
Styrene	17.740	1.0	20.00	0	88.7	65	134	18.97	6.70	20	
Tert-amyl methyl ether	20.000	1.0	20.00	0	100	70	130	20.40	1.98	20	
Tert-Butanol	101.200	5.0	100.0	0	101	70	130	104.7	3.36	20	
tert-Butylbenzene	22.270	1.0	20.00	0	111	70	129	23.19	4.05	20	
Tetrachloroethene	21.750	1.0	20.00	0	109	66	128	23.04	5.76	20	

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**CLIENT:** CH2MHill  
**Work Order:** N024098  
**Project:** SFPP - Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID <b>N024098-007AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115072</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R17VW062</b>	TestNo: <b>EPA 8260B</b>	Analysis Date: <b>5/5/2017</b>	SeqNo: <b>2636992</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	20.530	2.0	20.00	0	103	77	122	21.51	4.66	20	
trans-1,2-Dichloroethene	20.040	1.0	20.00	0	100	63	137	21.28	6.00	20	
trans-1,3-Dichloropropene	21.260	1.0	20.00	0	106	59	135	21.48	1.03	20	
Trichloroethene	20.990	1.0	20.00	0	105	70	127	22.03	4.83	20	
Trichlorofluoromethane	22.160	1.0	20.00	0	111	57	129	24.33	9.34	20	
Vinyl chloride	18.900	0.50	20.00	0	94.5	50	134	20.06	5.95	20	
Xylenes, Total	65.080	2.0	60.00	0	108	75	125	67.90	4.24	20	
Surr: 1,2-Dichloroethane-d4	24.990		25.00		100	72	119		0		
Surr: 4-Bromofluorobenzene	26.220		25.00		105	76	119		0		
Surr: Dibromofluoromethane	25.810		25.00		103	85	115		0		
Surr: Toluene-d8	25.770		25.00		103	81	120		0		

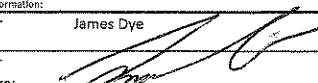
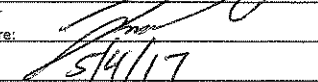
**Qualifiers:**

- |  |  |  |
|--|--|--|
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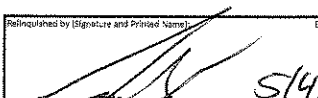
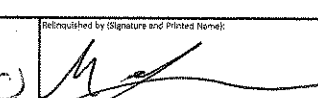
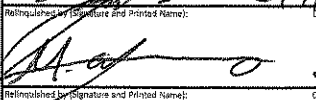
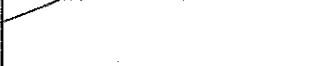
Asset Laboratories  
 3151 W. Post Road  
 Las Vegas, NV 89118  
 Tel: 702-307-2659 Fax: 702-307-2691  
 Marlon Cartin (marlon@assetlaboratories.com)

CHAIN OF CUSTODY RECORD

DATE: 5/4/17  
 PAGE: 1 of 1

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		<b>Section D</b> Sampler Information:	
Company: <b>Kinder Morgan Energy Partners</b> Attention: <b>Steve Defibaugh</b>		Report To: <b>Eric Davis</b>		Attention: <b>Steve Defibaugh - Ref. AFE# 81195</b>		Sampler: <b>James Dye</b>	
Address: <b>1100 Town &amp; Country Road</b> <b>Orange, CA 92868</b>		Copy To: <b>Steve Defibaugh</b>		Company Name: <b>Kinder Morgan Energy Partners</b>		Name: 	
Email To: <b>steve.defibaugh@kindermorgan.com</b> <b>eric.davis@ch2m.com</b>		Purchase Order No.:		Address: <b>1100 Town &amp; Country Road</b> <b>Orange, CA 92868</b>		Sampler Signature: 	
Phone: <b>714-560-4802</b> Fax: <b>714-560-4801</b>		Project Name: <b>SFPP Norwalk</b>		ATL Project Manager: <b>Marlon Cartin</b>		Sample Date: <b>5/4/17</b>	

ITEM #	SAMPLE ID	LOCATION/ DESCRIPTION	MATRIX	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	TOTAL # OF CONTAINERS	Analysis Test	CONTAINER TYPE			PRESERVATIVE			VOLUME (mL)	Comments
									V	V	A	H	H	-		
1	INF-05-04	Influent	WW	G	5/4/17	1740	8	MPX, 1,1-DCA, 1,2-DCA, MPBE, TBA (R2009)	X	X	X					N024098-01
2	POST_OWS-05-04	OWS Transfer Tank	WW	G	5/4/17	1135	8	TPH-gas (S0198)	X	X	X					-02
3	MP1-05-04	Lead LGAC Outlet	WW	G	5/4/17	1130	8	TPH-4, TPH-soil, Total TPH (S0158)	X	X	X					-03
4	INF_FBBR-05-04	Influent to FBBR	WW	G	5/4/17	1125	8		X	X	X					-04
5	EFF_FBBR1-05-04	Effluent to FBBR1	WW	G	5/4/17	1110	8		X	X	X					-05
6	EFF_FBBR2-05-04	Effluent to FBBR1	WW	G	5/4/17	1107	8		X	X	X					-06
7	EFF_POL1-05-04	Lead Polish LGAC Outlet	WW	G	5/4/17	1100	8		X	X	X					-07
8	S2A-05-04	Out of Dirty Sump BioA	WW	G	5/4/17	1120	3		X							-08
9	S2B-05-04	Out of Dirty Sump BioB	WW	G	5/4/17	1115	3		X							-09
10																
11																
12																

Retrieved by (Signature and Printed Name):  Date / Time: <u>5/4/17 1330</u>	Retrieved by (Signature and Printed Name):  Date / Time: <u>5-4-17 15:20</u>	Turn Around Time (TAT): <input type="checkbox"/> A = Same Day <input checked="" type="checkbox"/> B = 24 Hours <input type="checkbox"/> C = 48 Hours <input type="checkbox"/> D = 72 Hours <input type="checkbox"/> E = 5 Workdays <input type="checkbox"/> F = 10 Workdays TAT Starts at 8 AM the following day if samples received after 3:00 PM.	Special Instruction:  <u>3.1°C / 2.3°C</u> <u>650 #: 7055 / 7054</u> <u>IR # 2</u>
Retrieved by (Signature and Printed Name):  Date / Time: <u>5-4-17 1552</u>	Retrieved by (Signature and Printed Name): <u>Yocentro Rodriguez</u> Date / Time: <u>5/5/17 8:25</u>		
Retrieved by (Signature and Printed Name):  Date / Time: _____	Retrieved by (Signature and Printed Name): _____ Date / Time: _____		

Matrix:			Preservatives:			Container Type:			
W = Water	WW = Wastewater		H = HCl	N = HNO3	S = H2SO4	T = Tube	V = VOA	P = Pint	A = Amber
O = Oil	P = Product	S = Soil	Z = Zn(Ac)2	O = NaOH	T = Na2S2O3	J = Jar	B = Tedlar	G = Glass	
Others/Specify:			Others/Specify:			Others/Specify:			
						M = Metal	P = Plastic	C = Can	

# ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On: 5/4/2017 Workorder: N024098  
 Rep sample Temp (Deg C): 3.1/2.3 IR Gun ID: 2  
 Temp Blank:  Yes  No  
 Carrier name: Golden State Overnight  
 Last 4 digits of Tracking No.: 7055/7056 Packing Material Used: Bubble Wrap  
 Cooling process:  Ice  Ice Pack  Dry Ice  Other  None

## Sample Receipt Checklist

- |   |   |                             |   |
|---|---|-----------------------------|---|
| 1. Shipping container/cooler in good condition?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| 2. Custody seals intact, signed, dated on shipping container/cooler?                    | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles?  | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 5. Sampler's name present in COC?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 6. Chain of custody signed when relinquished and received?                              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 7. Chain of custody agrees with sample labels?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 8. Samples in proper container/bottle?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 9. Sample containers intact?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 10. Sufficient sample volume for indicated test?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 11. All samples received within holding time?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 12. Temperature of rep sample or Temp Blank within acceptable limit?                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 13. Water - VOA vials have zero headspace?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 14. Water - pH acceptable upon receipt?<br>Example: pH > 12 for (CN,S); pH<2 for Metals | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |
| 15. Did the bottle labels indicate correct preservatives used?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 16. Were there Non-Conformance issues at login?<br>Was Client notified?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |
|   | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |

Comments:

Checklist Completed By: YR YR 5/5/2017

Reviewed By: MBC 5/8/2017

# ASSET Laboratories

## WORK ORDER Summary

04-May-17

**WorkOrder:** N024098

**Client ID:** CH2HI03

**Project:** SFPP - Norwalk

**QC Level:** RTNE

**Date Received:** 5/4/2017

**Comments:**

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N024098-001A	INF-05-04	5/4/2017 11:40:00 AM	5/5/2017	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			5/5/2017		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N024098-001B			5/5/2017		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N024098-002A	POST_OWS-05-04	5/4/2017 11:35:00 AM	5/5/2017		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			5/5/2017		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N024098-002B			5/5/2017		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N024098-003A	MP1-05-04	5/4/2017 11:30:00 AM	5/5/2017		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			5/5/2017		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N024098-003B			5/5/2017		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N024098-004A	INF_FBRR-05-04	5/4/2017 11:25:00 AM	5/5/2017		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			5/5/2017		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N024098-004B			5/5/2017		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW

# ASSET Laboratories

## WORK ORDER Summary

04-May-17

**WorkOrder:** N024098

**Client ID:** CH2HI03

**Project:** SFPP - Norwalk

**QC Level:** RTNE

**Date Received:** 5/4/2017

**Comments:**

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N024098-004B	INF_FBRR-05-04	5/4/2017 11:25:00 AM	5/5/2017	Wastewater	EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N024098-005A	EFF_FBRR1-05-04	5/4/2017 11:10:00 AM	5/5/2017		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			5/5/2017		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N024098-005B			5/5/2017		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N024098-006A	EFF_FBRR2-05-04	5/4/2017 11:05:00 AM	5/5/2017		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			5/5/2017		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N024098-006B			5/5/2017		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N024098-007A	EFF_POL1-05-04	5/4/2017 11:00:00 AM	5/5/2017		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			5/5/2017		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N024098-007B			5/5/2017		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			5/5/2017		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N024098-008A	S2A-05-04	5/4/2017 11:20:00 AM	5/5/2017		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW

# ASSET Laboratories

## WORK ORDER Summary

04-May-17

**WorkOrder:** N024098

**Client ID:** CH2HI03

**Project:** SFPP - Norwalk

**QC Level:** RTNE

**Date Received:** 5/4/2017

**Comments:**

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N024098-009A	S2B-05-04	5/4/2017 11:15:00 AM	5/5/2017	Wastewater	EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N024098-010A	FOLDER	5/5/2017	5/5/2017		Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB
			5/5/2017		Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB



800-322-5555 www.gso.com

**Ship From**

ASSET LABORATORIES  
MOLKY BRAR  
11110 ARTESIA BLVD. SUITE B  
CERRITOS, CA 90703

Tracking #: 536007055

**CPS**



**Ship To**

ATL INC  
MARLON CARTIN  
3151 W. POST RD.,  
LAS VEGAS, NV 89118

**LVS**  
**LAS VEGAS**

**A**

**COD:** \$0.00

**Weight:** 0 lb(s)

**Reference:**

**C89102A**

**Delivery Instructions:**

HOLD FOR PICK UP

**Signature Type:** NOT REQUIRED



66404108

Print Date: 5/4/2017 4:12 PM

Package 1 of 2

**LABEL INSTRUCTIONS:**

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

3.10  
JR # 2



800-322-5555 www.gso.com

**Ship From**  
ASSET LABORATORIES  
MOLKY BRAR  
11110 ARTESIA BLVD. SUITE B  
CERRITOS, CA 90703

Tracking #: 536007056

**CPS**



**Ship To**  
ATL INC  
MARLON CARTIN  
3151 W. POST RD.,  
LAS VEGAS, NV 89118

**LVS**  
**LAS VEGAS**

**A**

**COD:** \$0.00  
**Weight:** 0 lb(s)  
**Reference:**

**C89102A**

**Delivery Instructions:**  
HOLD FOR PICK UP  
**Signature Type:** NOT REQUIRED



66404109

Print Date: 5/4/2017 4:12 PM

Package 2 of 2

**LABEL INSTRUCTIONS:**

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

*2.3c*  
*JL # 2*



## Marlon B. Cartin

---

**From:** Carino, Vladimir/SCO [Vladimir.Carino@CH2M.com]  
**Sent:** Wednesday, July 05, 2017 10:13 PM  
**To:** Marlon B. Cartin  
**Subject:** VOC Full list + Oxy for INF-05-04  
**Attachments:** N024098.pdf

Hi Marlon,

Can you include the full list of VOCs + Oxy for the attached work order just for INF-05-04 sample? Can you revise the report and the EDD to include the VOCs and Oxygenates just for INF-05-04 sample.

Can we get by COB 7/6/2017?

Thanks.

**Vladimir Carino**  
*Environmental Engineer*  
**D** 1 714 435 6017  
**M** 1 619 621 9406  
**F** 1 714 424 2014

**CH2M**  
6 Hutton Centre Dr  
Suite 700  
Santa Ana, CA 92707  
[www.ch2m.com](http://www.ch2m.com) | [LinkedIn](#) | [Twitter](#) | [Facebook](#)

June 29, 2017

Eric Davis  
CH2MHill  
1000 Wilshire Blvd.  
Los Angeles, CA 90017

TEL:

FAX:

Workorder No.: N024674

RE: SFPP-Norwalk

Attention: Eric Davis

Enclosed are the results for sample(s) received on June 20, 2017 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Puri Romualdo  
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories - Las Vegas.



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**CLIENT:** CH2MHill  
**Project:** SFPP-Norwalk  
**Lab Order:** N024674

**CASE NARRATIVE**

**SAMPLE RECEIVING/GENERAL COMMENTS:**

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples were analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

**Analytical Comments for EPA 8260B:**

Dilution was necessary due to high concentration of some target analytes.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Acetone possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.



**CLIENT:** CH2MHill  
**Project:** SFPP-Norwalk  
**Lab Order:** N024674  
**Contract No:**

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N024674-001A	INF-06-20	Wastewater	6/20/2017 12:01:00 AM	6/20/2017	6/29/2017
N024674-001B	INF-06-20	Wastewater	6/20/2017 12:01:00 AM	6/20/2017	6/29/2017



**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 29-Jun-17

**CLIENT:** CH2MHill  
**Lab Order:** N024674  
**Project:** SFPP-Norwalk  
**Lab ID:** N024674-001

**Client Sample ID:** INF-06-20  
**Collection Date:** 6/20/2017 12:01:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>NV00922-MS5_170624A</b>	QC Batch: <b>P17VW104</b>	PrepDate	Analyst: <b>RB</b>			
1,1,1,2-Tetrachloroethane	ND	0.89	10	ug/L	10	6/24/2017 06:04 PM
1,1,1-Trichloroethane	ND	1.5	10	ug/L	10	6/24/2017 06:04 PM
1,1,2,2-Tetrachloroethane	ND	1.4	10	ug/L	10	6/24/2017 06:04 PM
1,1,2-Trichloroethane	ND	1.5	10	ug/L	10	6/24/2017 06:04 PM
1,1-Dichloroethane	ND	1.3	5.0	ug/L	10	6/24/2017 06:04 PM
1,1-Dichloroethene	ND	1.5	10	ug/L	10	6/24/2017 06:04 PM
1,1-Dichloropropene	ND	1.2	10	ug/L	10	6/24/2017 06:04 PM
1,2,3-Trichlorobenzene	ND	1.6	10	ug/L	10	6/24/2017 06:04 PM
1,2,3-Trichloropropane	ND	0.97	10	ug/L	10	6/24/2017 06:04 PM
1,2,4-Trichlorobenzene	ND	1.3	10	ug/L	10	6/24/2017 06:04 PM
1,2,4-Trimethylbenzene	780	0.94	10	ug/L	10	6/24/2017 06:04 PM
1,2-Dibromo-3-chloropropane	ND	3.6	20	ug/L	10	6/24/2017 06:04 PM
1,2-Dibromoethane	ND	1.8	10	ug/L	10	6/24/2017 06:04 PM
1,2-Dichlorobenzene	ND	1.4	10	ug/L	10	6/24/2017 06:04 PM
1,2-Dichloroethane	ND	1.3	5.0	ug/L	10	6/24/2017 06:04 PM
1,2-Dichloropropane	ND	1.4	10	ug/L	10	6/24/2017 06:04 PM
1,3,5-Trimethylbenzene	290	1.1	10	ug/L	10	6/24/2017 06:04 PM
1,3-Dichlorobenzene	ND	1.1	10	ug/L	10	6/24/2017 06:04 PM
1,3-Dichloropropane	ND	1.3	10	ug/L	10	6/24/2017 06:04 PM
1,4-Dichlorobenzene	ND	1.3	10	ug/L	10	6/24/2017 06:04 PM
2,2-Dichloropropane	ND	1.6	10	ug/L	10	6/24/2017 06:04 PM
2-Butanone	ND	19	100	ug/L	10	6/24/2017 06:04 PM
2-Chlorotoluene	ND	1.4	10	ug/L	10	6/24/2017 06:04 PM
4-Chlorotoluene	ND	1.4	10	ug/L	10	6/24/2017 06:04 PM
4-Isopropyltoluene	5.8	1.3	10	J ug/L	10	6/24/2017 06:04 PM
4-Methyl-2-pentanone	ND	14	100	ug/L	10	6/24/2017 06:04 PM
Acetone	ND	43	100	ug/L	10	6/24/2017 06:04 PM
Benzene	1400	14	100	ug/L	100	6/24/2017 07:34 PM
Bromobenzene	ND	1.3	10	ug/L	10	6/24/2017 06:04 PM
Bromochloromethane	ND	1.5	10	ug/L	10	6/24/2017 06:04 PM
Bromodichloromethane	ND	1.0	10	ug/L	10	6/24/2017 06:04 PM
Bromoform	ND	3.4	10	ug/L	10	6/24/2017 06:04 PM
Bromomethane	ND	1.2	10	ug/L	10	6/24/2017 06:04 PM
Carbon disulfide	6.5	1.4	10	J ug/L	10	6/24/2017 06:04 PM
Carbon tetrachloride	ND	1.3	5.0	ug/L	10	6/24/2017 06:04 PM
Chlorobenzene	ND	1.3	10	ug/L	10	6/24/2017 06:04 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 29-Jun-17

**CLIENT:** CH2MHill  
**Lab Order:** N024674  
**Project:** SFPP-Norwalk  
**Lab ID:** N024674-001

**Client Sample ID:** INF-06-20  
**Collection Date:** 6/20/2017 12:01:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>NV00922-MS5_170624A</b>	QC Batch: <b>P17VW104</b>	PrepDate	Analyst: <b>RB</b>			
Chloroethane	ND	1.9	10	ug/L	10	6/24/2017 06:04 PM
Chloroform	ND	1.8	10	ug/L	10	6/24/2017 06:04 PM
Chloromethane	ND	2.2	10	ug/L	10	6/24/2017 06:04 PM
cis-1,2-Dichloroethene	ND	2.0	10	ug/L	10	6/24/2017 06:04 PM
cis-1,3-Dichloropropene	ND	1.4	10	ug/L	10	6/24/2017 06:04 PM
Di-isopropyl ether	8.1	1.8	10	J ug/L	10	6/24/2017 06:04 PM
Dibromochloromethane	ND	1.2	10	ug/L	10	6/24/2017 06:04 PM
Dibromomethane	ND	1.2	10	ug/L	10	6/24/2017 06:04 PM
Dichlorodifluoromethane	ND	1.7	10	ug/L	10	6/24/2017 06:04 PM
Ethyl tert-butyl ether	ND	1.5	10	ug/L	10	6/24/2017 06:04 PM
Ethylbenzene	100	1.4	10	ug/L	10	6/24/2017 06:04 PM
Freon-113	ND	1.9	10	ug/L	10	6/24/2017 06:04 PM
Hexachlorobutadiene	ND	1.5	10	ug/L	10	6/24/2017 06:04 PM
Isopropylbenzene	16	1.1	10	ug/L	10	6/24/2017 06:04 PM
m,p-Xylene	1600	2.3	10	ug/L	10	6/24/2017 06:04 PM
Methylene chloride	ND	2.6	20	ug/L	10	6/24/2017 06:04 PM
MTBE	15	1.3	10	ug/L	10	6/24/2017 06:04 PM
n-Butylbenzene	ND	1.5	10	ug/L	10	6/24/2017 06:04 PM
n-Propylbenzene	30	1.6	10	ug/L	10	6/24/2017 06:04 PM
Naphthalene	270	0.94	10	ug/L	10	6/24/2017 06:04 PM
o-Xylene	750	1.3	10	ug/L	10	6/24/2017 06:04 PM
sec-Butylbenzene	3.7	1.2	10	J ug/L	10	6/24/2017 06:04 PM
Styrene	ND	1.4	10	ug/L	10	6/24/2017 06:04 PM
Tert-amyl methyl ether	ND	1.2	10	ug/L	10	6/24/2017 06:04 PM
Tert-Butanol	ND	18	50	ug/L	10	6/24/2017 06:04 PM
tert-Butylbenzene	ND	1.1	10	ug/L	10	6/24/2017 06:04 PM
Tetrachloroethene	ND	1.3	10	ug/L	10	6/24/2017 06:04 PM
Toluene	400	1.4	20	ug/L	10	6/24/2017 06:04 PM
trans-1,2-Dichloroethene	ND	2.0	10	ug/L	10	6/24/2017 06:04 PM
trans-1,3-Dichloropropene	ND	1.3	10	ug/L	10	6/24/2017 06:04 PM
Trichloroethene	ND	1.4	10	ug/L	10	6/24/2017 06:04 PM
Trichlorofluoromethane	ND	1.3	10	ug/L	10	6/24/2017 06:04 PM
Vinyl chloride	ND	1.5	5.0	ug/L	10	6/24/2017 06:04 PM
Xylenes, Total	2300	15	20	ug/L	10	6/24/2017 06:04 PM
Surr: 1,2-Dichloroethane-d4	102	0	72-119	%REC	100	6/24/2017 07:34 PM
Surr: 1,2-Dichloroethane-d4	96.4	0	72-119	%REC	10	6/24/2017 06:04 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 29-Jun-17

<b>CLIENT:</b> CH2MHill	<b>Client Sample ID:</b> INF-06-20
<b>Lab Order:</b> N024674	<b>Collection Date:</b> 6/20/2017 12:01:00 AM
<b>Project:</b> SFPP-Norwalk	<b>Matrix:</b> WASTEWATER
<b>Lab ID:</b> N024674-001	

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>NV00922-MS5_170624A</b>	QC Batch: <b>P17VW104</b>			PrepDate		Analyst: <b>RB</b>
Surr: 4-Bromofluorobenzene	103	0	76-119	%REC	100	6/24/2017 07:34 PM
Surr: 4-Bromofluorobenzene	102	0	76-119	%REC	10	6/24/2017 06:04 PM
Surr: Dibromofluoromethane	98.9	0	85-115	%REC	10	6/24/2017 06:04 PM
Surr: Dibromofluoromethane	105	0	85-115	%REC	100	6/24/2017 07:34 PM
Surr: Toluene-d8	104	0	81-120	%REC	100	6/24/2017 07:34 PM
Surr: Toluene-d8	101	0	81-120	%REC	10	6/24/2017 06:04 PM

**TPH EXTRACTABLE BY GC/FID**

**EPA 3510C**

**EPA 8015B**

RunID: <b>NV00922-GC3_170623A</b>	QC Batch: <b>62630</b>			PrepDate	<b>6/23/2017</b>	Analyst: <b>QCE</b>
TPH-Diesel (C13-C22)	54000	370	610	ug/L	25	6/24/2017 05:01 PM
TPH-Oil (C23-C36)	3000	13	24	ug/L	1	6/23/2017 07:08 PM
Surr: Octacosane	104	0	26-152	%REC	1	6/23/2017 07:08 PM
Surr: p-Terphenyl	94.3	0	57-132	%REC	1	6/23/2017 07:08 PM

**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B**

RunID: <b>NV00922-GC4_170621A</b>	QC Batch: <b>E17VW057</b>			PrepDate		Analyst: <b>RB</b>
TPH-Gasoline (C4-C12)	11000	160	500	ug/L	10	6/21/2017 06:43 PM
Surr: Chlorobenzene - d5	96.7	0	74-138	%REC	10	6/21/2017 06:43 PM

**TOTAL TPH**

**EPA 8015B**

RunID: <b>NV00922-GC3_170623A</b>	QC Batch: <b>R115953</b>			PrepDate		Analyst: <b>QCE</b>
Total TPH	68000	16	100	ug/L	1	6/23/2017

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO Surrogate Diluted Out



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**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

**ANALYTICAL QC SUMMARY REPORT**

**TestCode: 8015\_W\_FP\_SFPP**

Sample ID <b>MB-62630</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_FP_</b>	Units: <b>ug/L</b>	Prep Date: <b>6/23/2017</b>	RunNo: <b>115953</b>						
Client ID: <b>PBW</b>	Batch ID: <b>62630</b>	TestNo: <b>EPA 8015B EPA 3510C</b>		Analysis Date: <b>6/23/2017</b>	SeqNo: <b>2674286</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C13-C22)	ND	25									
TPH-Oil (C23-C36)	16.673	25									J
Surr: Octacosane	72.248		80.00		90.3	26	152				
Surr: p-Terphenyl	65.477		80.00		81.8	57	132				

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values



**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_SFPPTOT**

Sample ID <b>MB-R115953</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_SFP</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115953</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R115953</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>6/23/2017</b>	SeqNo: <b>2679449</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total TPH	16.673	100									J

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015GAS\_WSFP**

Sample ID <b>E170621LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8015GAS_W</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115896</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>E17VW057</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>6/21/2017</b>	SeqNo: <b>2671781</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	1135.000	50	1000	0	114	67	136				
Surr: Chlorobenzene - d5	49623.000		50000		99.2	74	138				

Sample ID <b>E170621MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8015GAS_W</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115896</b>						
Client ID: <b>PBW</b>	Batch ID: <b>E17VW057</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>6/21/2017</b>	SeqNo: <b>2671782</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	ND	50									
Surr: Chlorobenzene - d5	54213.000		50000		108	74	138				

Sample ID <b>N024645-003AMS</b>	SampType: <b>MS</b>	TestCode: <b>8015GAS_W</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115896</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>E17VW057</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>6/21/2017</b>	SeqNo: <b>2671789</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	25800.000	500	10000	15010	108	67	136				
Surr: Chlorobenzene - d5	446620.000		500000		89.3	74	138				

Sample ID <b>N024645-003AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015GAS_W</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115896</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>E17VW057</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>6/21/2017</b>	SeqNo: <b>2671790</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	24810.000	500	10000	15010	98.0	67	136	25800	3.91	30	
Surr: Chlorobenzene - d5	459080.000		500000		91.8	74	138		0	0	

**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	P170624LCS	SampType: LCS	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115964					
Client ID:	LCSW	Batch ID: P17VW104	TestNo: EPA 8260B		Analysis Date: 6/24/2017	SeqNo: 2674545					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	19.630	1.0	20.00	0	98.2	81	129				
1,1,1-Trichloroethane	20.840	1.0	20.00	0	104	67	132				
1,1,2,2-Tetrachloroethane	19.320	1.0	20.00	0	96.6	63	128				
1,1,2-Trichloroethane	17.940	1.0	20.00	0	89.7	75	125				
1,1-Dichloroethane	19.260	0.50	20.00	0	96.3	69	133				
1,1-Dichloroethene	19.180	1.0	20.00	0	95.9	68	130				
1,1-Dichloropropene	21.210	1.0	20.00	0	106	73	132				
1,2,3-Trichlorobenzene	20.990	1.0	20.00	0	105	67	137				
1,2,3-Trichloropropane	19.010	1.0	20.00	0	95.1	73	124				
1,2,4-Trichlorobenzene	21.470	1.0	20.00	0	107	66	134				
1,2,4-Trimethylbenzene	20.790	1.0	20.00	0	104	74	132				
1,2-Dibromo-3-chloropropane	17.320	2.0	20.00	0	86.6	50	132				
1,2-Dibromoethane	19.460	1.0	20.00	0	97.3	80	121				
1,2-Dichlorobenzene	20.080	1.0	20.00	0	100	71	122				
1,2-Dichloroethane	18.700	0.50	20.00	0	93.5	69	132				
1,2-Dichloropropane	18.950	1.0	20.00	0	94.8	75	125				
1,3,5-Trimethylbenzene	20.890	1.0	20.00	0	104	74	131				
1,3-Dichlorobenzene	20.190	1.0	20.00	0	101	75	124				
1,3-Dichloropropane	20.370	1.0	20.00	0	102	73	126				
1,4-Dichlorobenzene	19.840	1.0	20.00	0	99.2	74	123				
2,2-Dichloropropane	20.640	1.0	20.00	0	103	69	137				
2-Butanone	179.630	10	200.0	0	89.8	49	136				
2-Chlorotoluene	20.210	1.0	20.00	0	101	73	126				
4-Chlorotoluene	20.350	1.0	20.00	0	102	74	128				
4-Isopropyltoluene	22.010	1.0	20.00	0	110	73	130				
4-Methyl-2-pentanone	189.910	10	200.0	0	95.0	58	134				
Acetone	195.220	10	200.0	0	97.6	40	135				
Benzene	19.190	1.0	20.00	0	96.0	81	122				
Bromobenzene	19.380	1.0	20.00	0	96.9	76	124				
Bromochloromethane	18.620	1.0	20.00	0	93.1	65	129				

**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	P170624LCS	SampType: LCS	TestCode: 8260_WP_SF Units: ug/L			Prep Date:			RunNo: 115964		
Client ID:	LCSW	Batch ID:	P17VW104	TestNo: EPA 8260B		Analysis Date: 6/24/2017			SeqNo: 2674545		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	19.350	1.0	20.00	0	96.8	76	121				
Bromoform	17.540	1.0	20.00	0	87.7	69	128				
Bromomethane	19.550	1.0	20.00	0	97.8	53	141				
Carbon disulfide	17.410	1.0	20.00	0	87.1	75	125				
Carbon tetrachloride	21.780	0.50	20.00	0	109	66	138				
Chlorobenzene	20.010	1.0	20.00	0	100	81	122				
Chloroethane	21.740	1.0	20.00	0	109	58	133				
Chloroform	18.120	1.0	20.00	0	90.6	69	128				
Chloromethane	19.950	1.0	20.00	0	99.8	56	131				
cis-1,2-Dichloroethene	19.460	1.0	20.00	0	97.3	72	126				
cis-1,3-Dichloropropene	20.760	1.0	20.00	0	104	69	131				
Di-isopropyl ether	18.800	1.0	20.00	0	94.0	70	130				
Dibromochloromethane	18.240	1.0	20.00	0	91.2	66	133				
Dibromomethane	18.970	1.0	20.00	0	94.8	76	125				
Dichlorodifluoromethane	22.390	1.0	20.00	0	112	53	153				
Ethyl tert-butyl ether	19.120	1.0	20.00	0	95.6	70	130				
Ethylbenzene	20.000	1.0	20.00	0	100	73	127				
Freon-113	17.660	1.0	20.00	0	88.3	75	125				
Hexachlorobutadiene	21.860	1.0	20.00	0	109	67	131				
Isopropylbenzene	18.370	1.0	20.00	0	91.9	75	127				
m,p-Xylene	40.980	1.0	40.00	0	102	76	128				
Methylene chloride	18.860	2.0	20.00	0	94.3	63	137				
MTBE	19.390	1.0	20.00	0	97.0	65	123				
n-Butylbenzene	21.940	1.0	20.00	0	110	69	137				
n-Propylbenzene	21.710	1.0	20.00	0	109	72	129				
Naphthalene	22.530	1.0	20.00	0	113	54	138				
o-Xylene	20.540	1.0	20.00	0	103	80	121				
sec-Butylbenzene	21.650	1.0	20.00	0	108	72	127				
Styrene	19.660	1.0	20.00	0	98.3	65	134				
Tert-amyl methyl ether	20.290	1.0	20.00	0	101	70	130				

**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
<b>P170624LCS</b>	<b>LCS</b>	<b>8260_WP_SF</b>	<b>ug/L</b>		<b>115964</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>P17VW104</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>6/24/2017</b>	SeqNo: <b>2674545</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tert-Butanol	90.740	5.0	100.0	0	90.7	70	130				
tert-Butylbenzene	21.810	1.0	20.00	0	109	70	129				
Tetrachloroethene	20.980	1.0	20.00	0	105	66	128				
Toluene	18.160	2.0	20.00	0	90.8	77	122				
trans-1,2-Dichloroethene	20.980	1.0	20.00	0	105	63	137				
trans-1,3-Dichloropropene	20.510	1.0	20.00	0	103	59	135				
Trichloroethene	21.200	1.0	20.00	0	106	70	127				
Trichlorofluoromethane	21.550	1.0	20.00	0	108	57	129				
Vinyl chloride	22.400	0.50	20.00	0	112	50	134				
Xylenes, Total	61.520	2.0	60.00	0	103	75	125				
Surr: 1,2-Dichloroethane-d4	24.560		25.00		98.2	72	119				
Surr: 4-Bromofluorobenzene	25.100		25.00		100	76	119				
Surr: Dibromofluoromethane	25.130		25.00		101	85	115				
Surr: Toluene-d8	25.380		25.00		102	81	120				

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
<b>P170624MB3</b>	<b>MBLK</b>	<b>8260_WP_SF</b>	<b>ug/L</b>		<b>115964</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P17VW104</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>6/24/2017</b>	SeqNo: <b>2674548</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	1.0									
1,1-Dichloropropene	ND	1.0									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,3-Trichloropropane	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									

**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID <b>P170624MB3</b>	SampType: <b>MLBK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115964</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P17VW104</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>6/24/2017</b>	SeqNo: <b>2674548</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromo-3-chloropropane	ND	2.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,3-Dichloropropane	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2,2-Dichloropropane	ND	1.0									
2-Butanone	ND	10									
2-Chlorotoluene	ND	1.0									
4-Chlorotoluene	ND	1.0									
4-Isopropyltoluene	ND	1.0									
4-Methyl-2-pentanone	ND	10									
Acetone	ND	10									
Benzene	ND	1.0									
Bromobenzene	ND	1.0									
Bromochloromethane	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									

**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
<b>P170624MB3</b>	<b>MBLK</b>	<b>8260_WP_SF</b>	<b>ug/L</b>		<b>115964</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P17VW104</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>6/24/2017</b>	SeqNo: <b>2674548</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-isopropyl ether	ND	1.0									
Dibromochloromethane	ND	1.0									
Dibromomethane	ND	1.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl tert-butyl ether	ND	1.0									
Ethylbenzene	ND	1.0									
Freon-113	ND	1.0									
Hexachlorobutadiene	ND	1.0									
Isopropylbenzene	ND	1.0									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	2.0									
MTBE	ND	1.0									
n-Butylbenzene	ND	1.0									
n-Propylbenzene	ND	1.0									
Naphthalene	0.260	1.0									J
o-Xylene	ND	1.0									
sec-Butylbenzene	ND	1.0									
Styrene	ND	1.0									
Tert-amyl methyl ether	ND	1.0									
Tert-Butanol	ND	5.0									
tert-Butylbenzene	ND	1.0									
Tetrachloroethene	ND	1.0									
Toluene	ND	2.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	2.0									
Surr: 1,2-Dichloroethane-d4	23.730		25.00		94.9	72	119				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID <b>P170624MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115964</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P17VW104</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>6/24/2017</b>	SeqNo: <b>2674548</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	25.360		25.00		101	76	119				
Surr: Dibromofluoromethane	24.440		25.00		97.8	85	115				
Surr: Toluene-d8	24.720		25.00		98.9	81	120				

Sample ID <b>N024691-003BMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>115964</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P17VW104</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>6/24/2017</b>	SeqNo: <b>2674554</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	18.730	1.0	20.00	0	93.6	81	129				
1,1,1-Trichloroethane	19.790	1.0	20.00	0	99.0	67	132				
1,1,2,2-Tetrachloroethane	19.400	1.0	20.00	0	97.0	63	128				
1,1,2-Trichloroethane	18.400	1.0	20.00	0	92.0	75	125				
1,1-Dichloroethane	18.760	0.50	20.00	0	93.8	69	133				
1,1-Dichloroethene	19.130	1.0	20.00	0	95.7	68	130				
1,1-Dichloropropene	20.180	1.0	20.00	0	101	73	132				
1,2,3-Trichlorobenzene	20.620	1.0	20.00	0	103	67	137				
1,2,3-Trichloropropane	20.220	1.0	20.00	0	101	73	124				
1,2,4-Trichlorobenzene	20.860	1.0	20.00	0	104	66	134				
1,2,4-Trimethylbenzene	20.280	1.0	20.00	0	101	74	132				
1,2-Dibromo-3-chloropropane	18.430	2.0	20.00	0	92.2	50	132				
1,2-Dibromoethane	19.590	1.0	20.00	0	98.0	80	121				
1,2-Dichlorobenzene	20.060	1.0	20.00	0	100	71	122				
1,2-Dichloroethane	18.950	0.50	20.00	0	94.8	69	132				
1,2-Dichloropropane	19.020	1.0	20.00	0	95.1	75	125				
1,3,5-Trimethylbenzene	20.190	1.0	20.00	0	101	74	131				
1,3-Dichlorobenzene	19.640	1.0	20.00	0	98.2	75	124				
1,3-Dichloropropane	20.450	1.0	20.00	0	102	73	126				
1,4-Dichlorobenzene	19.630	1.0	20.00	0	98.2	74	123				
2,2-Dichloropropane	19.230	1.0	20.00	0	96.2	69	137				
2-Butanone	271.180	10	200.0	0	136	49	136				

**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	N024691-003BMS	SampType: MS	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115964					
Client ID:	ZZZZZZ	Batch ID: P17VW104	TestNo: EPA 8260B		Analysis Date: 6/24/2017	SeqNo: 2674554					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	19.830	1.0	20.00	0	99.2	73	126				
4-Chlorotoluene	20.140	1.0	20.00	0	101	74	128				
4-Isopropyltoluene	20.800	1.0	20.00	0	104	73	130				
4-Methyl-2-pentanone	199.260	10	200.0	0	99.6	58	134				
Acetone	402.300	10	200.0	0	201	40	135				S
Benzene	19.230	1.0	20.00	0	96.2	81	122				
Bromobenzene	19.370	1.0	20.00	0	96.9	76	124				
Bromochloromethane	19.470	1.0	20.00	0	97.4	65	129				
Bromodichloromethane	19.580	1.0	20.00	0	97.9	76	121				
Bromoform	17.030	1.0	20.00	0	85.2	69	128				
Bromomethane	20.850	1.0	20.00	0	104	53	141				
Carbon disulfide	17.310	1.0	20.00	0	86.6	75	125				
Carbon tetrachloride	20.700	0.50	20.00	0	104	66	138				
Chlorobenzene	19.380	1.0	20.00	0	96.9	81	122				
Chloroethane	22.850	1.0	20.00	0	114	58	133				
Chloroform	20.340	1.0	20.00	2.730	88.0	69	128				
Chloromethane	19.660	1.0	20.00	0	98.3	56	131				
cis-1,2-Dichloroethene	19.280	1.0	20.00	0	96.4	72	126				
cis-1,3-Dichloropropene	20.480	1.0	20.00	0	102	69	131				
Di-isopropyl ether	18.810	1.0	20.00	0	94.1	70	130				
Dibromochloromethane	18.300	1.0	20.00	0	91.5	66	133				
Dibromomethane	19.490	1.0	20.00	0	97.5	76	125				
Dichlorodifluoromethane	21.960	1.0	20.00	0	110	53	153				
Ethyl tert-butyl ether	18.740	1.0	20.00	0	93.7	70	130				
Ethylbenzene	19.400	1.0	20.00	0	97.0	73	127				
Freon-113	17.510	1.0	20.00	0	87.6	75	125				
Hexachlorobutadiene	21.200	1.0	20.00	0	106	67	131				
Isopropylbenzene	17.200	1.0	20.00	0	86.0	75	127				
m,p-Xylene	39.280	1.0	40.00	0	98.2	76	128				
Methylene chloride	18.800	2.0	20.00	0	94.0	63	137				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	N024691-003BMS	SampType: MS	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115964					
Client ID:	ZZZZZZ	Batch ID: P17VW104	TestNo: EPA 8260B		Analysis Date: 6/24/2017	SeqNo: 2674554					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	19.610	1.0	20.00	0	98.0	65	123				
n-Butylbenzene	20.560	1.0	20.00	0	103	69	137				
n-Propylbenzene	20.510	1.0	20.00	0	103	72	129				
Naphthalene	22.420	1.0	20.00	0	112	54	138				
o-Xylene	20.020	1.0	20.00	0	100	80	121				
sec-Butylbenzene	20.670	1.0	20.00	0	103	72	127				
Styrene	19.180	1.0	20.00	0	95.9	65	134				
Tert-amyl methyl ether	20.520	1.0	20.00	0	103	70	130				
Tert-Butanol	90.560	5.0	100.0	0	90.6	70	130				
tert-Butylbenzene	21.270	1.0	20.00	0	106	70	129				
Tetrachloroethene	19.650	1.0	20.00	0	98.2	66	128				
Toluene	18.080	2.0	20.00	0	90.4	77	122				
trans-1,2-Dichloroethene	20.050	1.0	20.00	0	100	63	137				
trans-1,3-Dichloropropene	20.250	1.0	20.00	0	101	59	135				
Trichloroethene	20.220	1.0	20.00	0	101	70	127				
Trichlorofluoromethane	21.200	1.0	20.00	0	106	57	129				
Vinyl chloride	21.740	0.50	20.00	0	109	50	134				
Xylenes, Total	59.300	2.0	60.00	0	98.8	75	125				
Surr: 1,2-Dichloroethane-d4	25.160		25.00		101	72	119				
Surr: 4-Bromofluorobenzene	25.670		25.00		103	76	119				
Surr: Dibromofluoromethane	25.650		25.00		103	85	115				
Surr: Toluene-d8	25.440		25.00		102	81	120				

Sample ID	N024691-003BMSD	SampType: MSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115964					
Client ID:	ZZZZZZ	Batch ID: P17VW104	TestNo: EPA 8260B		Analysis Date: 6/24/2017	SeqNo: 2674555					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	19.650	1.0	20.00	0	98.2	81	129	18.73	4.79	20	
1,1,1-Trichloroethane	20.520	1.0	20.00	0	103	67	132	19.79	3.62	20	
1,1,2,2-Tetrachloroethane	19.370	1.0	20.00	0	96.9	63	128	19.40	0.155	20	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	N024691-003BMSD	SampType: MSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115964					
Client ID:	ZZZZZZ	Batch ID: P17VW104	TestNo: EPA 8260B	Analysis Date: 6/24/2017	SeqNo: 2674555						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	18.370	1.0	20.00	0	91.9	75	125	18.40	0.163	20	
1,1-Dichloroethane	19.380	0.50	20.00	0	96.9	69	133	18.76	3.25	20	
1,1-Dichloroethene	19.560	1.0	20.00	0	97.8	68	130	19.13	2.22	20	
1,1-Dichloropropene	20.550	1.0	20.00	0	103	73	132	20.18	1.82	20	
1,2,3-Trichlorobenzene	20.580	1.0	20.00	0	103	67	137	20.62	0.194	20	
1,2,3-Trichloropropane	18.880	1.0	20.00	0	94.4	73	124	20.22	6.85	20	
1,2,4-Trichlorobenzene	21.000	1.0	20.00	0	105	66	134	20.86	0.669	20	
1,2,4-Trimethylbenzene	20.390	1.0	20.00	0	102	74	132	20.28	0.541	20	
1,2-Dibromo-3-chloropropane	17.900	2.0	20.00	0	89.5	50	132	18.43	2.92	20	
1,2-Dibromoethane	19.540	1.0	20.00	0	97.7	80	121	19.59	0.256	20	
1,2-Dichlorobenzene	20.090	1.0	20.00	0	100	71	122	20.06	0.149	20	
1,2-Dichloroethane	19.130	0.50	20.00	0	95.7	69	132	18.95	0.945	20	
1,2-Dichloropropane	18.940	1.0	20.00	0	94.7	75	125	19.02	0.421	20	
1,3,5-Trimethylbenzene	20.350	1.0	20.00	0	102	74	131	20.19	0.789	20	
1,3-Dichlorobenzene	20.080	1.0	20.00	0	100	75	124	19.64	2.22	20	
1,3-Dichloropropane	20.400	1.0	20.00	0	102	73	126	20.45	0.245	20	
1,4-Dichlorobenzene	20.110	1.0	20.00	0	101	74	123	19.63	2.42	20	
2,2-Dichloropropane	19.490	1.0	20.00	0	97.5	69	137	19.23	1.34	20	
2-Butanone	264.910	10	200.0	0	132	49	136	271.2	2.34	20	
2-Chlorotoluene	19.990	1.0	20.00	0	100	73	126	19.83	0.804	20	
4-Chlorotoluene	20.050	1.0	20.00	0	100	74	128	20.14	0.448	20	
4-Isopropyltoluene	21.250	1.0	20.00	0	106	73	130	20.80	2.14	20	
4-Methyl-2-pentanone	191.300	10	200.0	0	95.6	58	134	199.3	4.08	20	
Acetone	394.590	10	200.0	0	197	40	135	402.3	1.94	20	S
Benzene	19.440	1.0	20.00	0	97.2	81	122	19.23	1.09	20	
Bromobenzene	19.740	1.0	20.00	0	98.7	76	124	19.37	1.89	20	
Bromochloromethane	19.460	1.0	20.00	0	97.3	65	129	19.47	0.0514	20	
Bromodichloromethane	19.990	1.0	20.00	0	100	76	121	19.58	2.07	20	
Bromoform	17.060	1.0	20.00	0	85.3	69	128	17.03	0.176	20	
Bromomethane	20.830	1.0	20.00	0	104	53	141	20.85	0.0960	20	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |

**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

Sample ID	N024691-003BMSD	SampType: MSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 115964					
Client ID:	ZZZZZZ	Batch ID:	P17VW104	TestNo:	EPA 8260B	Analysis Date:	6/24/2017	SeqNo:	2674555		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon disulfide	17.880	1.0	20.00	0	89.4	75	125	17.31	3.24	20	
Carbon tetrachloride	21.090	0.50	20.00	0	105	66	138	20.70	1.87	20	
Chlorobenzene	19.740	1.0	20.00	0	98.7	81	122	19.38	1.84	20	
Chloroethane	23.540	1.0	20.00	0	118	58	133	22.85	2.97	20	
Chloroform	20.960	1.0	20.00	2.730	91.2	69	128	20.34	3.00	20	
Chloromethane	20.510	1.0	20.00	0	103	56	131	19.66	4.23	20	
cis-1,2-Dichloroethene	19.750	1.0	20.00	0	98.8	72	126	19.28	2.41	20	
cis-1,3-Dichloropropene	20.520	1.0	20.00	0	103	69	131	20.48	0.195	20	
Di-isopropyl ether	19.610	1.0	20.00	0	98.0	70	130	18.81	4.16	20	
Dibromochloromethane	18.520	1.0	20.00	0	92.6	66	133	18.30	1.20	20	
Dibromomethane	19.270	1.0	20.00	0	96.4	76	125	19.49	1.14	20	
Dichlorodifluoromethane	22.020	1.0	20.00	0	110	53	153	21.96	0.273	20	
Ethyl tert-butyl ether	19.740	1.0	20.00	0	98.7	70	130	18.74	5.20	20	
Ethylbenzene	19.440	1.0	20.00	0	97.2	73	127	19.40	0.206	20	
Freon-113	17.540	1.0	20.00	0	87.7	75	125	17.51	0.171	20	
Hexachlorobutadiene	20.930	1.0	20.00	0	105	67	131	21.20	1.28	20	
Isopropylbenzene	17.680	1.0	20.00	0	88.4	75	127	17.20	2.75	20	
m,p-Xylene	40.210	1.0	40.00	0	101	76	128	39.28	2.34	20	
Methylene chloride	19.490	2.0	20.00	0	97.5	63	137	18.80	3.60	20	
MTBE	19.660	1.0	20.00	0	98.3	65	123	19.61	0.255	20	
n-Butylbenzene	20.830	1.0	20.00	0	104	69	137	20.56	1.30	20	
n-Propylbenzene	21.130	1.0	20.00	0	106	72	129	20.51	2.98	20	
Naphthalene	21.460	1.0	20.00	0	107	54	138	22.42	4.38	20	
o-Xylene	20.190	1.0	20.00	0	101	80	121	20.02	0.846	20	
sec-Butylbenzene	21.080	1.0	20.00	0	105	72	127	20.67	1.96	20	
Styrene	19.300	1.0	20.00	0	96.5	65	134	19.18	0.624	20	
Tert-amyl methyl ether	20.110	1.0	20.00	0	101	70	130	20.52	2.02	20	
Tert-Butanol	86.890	5.0	100.0	0	86.9	70	130	90.56	4.14	20	
tert-Butylbenzene	21.200	1.0	20.00	0	106	70	129	21.27	0.330	20	
Tetrachloroethene	20.290	1.0	20.00	0	101	66	128	19.65	3.20	20	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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**CLIENT:** CH2MHill  
**Work Order:** N024674  
**Project:** SFPP-Norwalk

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_SFPP**

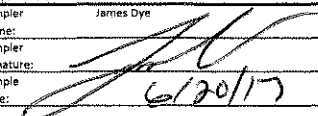
Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
<b>N024691-003BMSD</b>	<b>MSD</b>	<b>8260_WP_SF</b>	<b>ug/L</b>		<b>115964</b>						
<b>Client ID: ZZZZZZ</b>	<b>Batch ID: P17VW104</b>	<b>TestNo: EPA 8260B</b>		<b>Analysis Date: 6/24/2017</b>	<b>SeqNo: 2674555</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	18.520	2.0	20.00	0	92.6	77	122	18.08	2.40	20	
trans-1,2-Dichloroethene	20.670	1.0	20.00	0	103	63	137	20.05	3.05	20	
trans-1,3-Dichloropropene	20.040	1.0	20.00	0	100	59	135	20.25	1.04	20	
Trichloroethene	20.590	1.0	20.00	0	103	70	127	20.22	1.81	20	
Trichlorofluoromethane	21.530	1.0	20.00	0	108	57	129	21.20	1.54	20	
Vinyl chloride	22.180	0.50	20.00	0	111	50	134	21.74	2.00	20	
Xylenes, Total	60.400	2.0	60.00	0	101	75	125	59.30	1.84	20	
Surr: 1,2-Dichloroethane-d4	25.390		25.00		102	72	119		0		
Surr: 4-Bromofluorobenzene	25.610		25.00		102	76	119		0		
Surr: Dibromofluoromethane	26.490		25.00		106	85	115		0		
Surr: Toluene-d8	25.890		25.00		104	81	120		0		

**Qualifiers:**

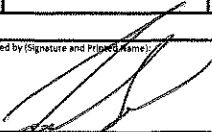
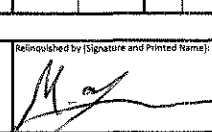
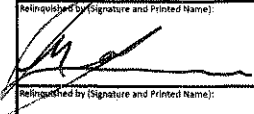
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|--|--|--|
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Asset Laboratories  
 3151 W. Post Road  
 Las Vegas, NV 89118  
 Tel: 702-307-2659 Fax: 702-307-2691  
 Marlon Cartin (marlon@assetlaboratories.com)

CHAIN OF CUSTODY RECORD  
 DATE: 6/20/17  
 PAGE: 1 of 1

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		<b>Section D</b> Sampler Information:	
Company: <b>Kinder Morgan Energy Partners</b> Attention: <b>Steve Defibaugh</b>		Report To: <b>Eric Davis</b>		Attention: <b>Steve Defibaugh - Ref. AFER 81195</b>		Sampler Name: <b>James Dye</b>	
Address: <b>1100 Town &amp; Country Road</b> <b>Orange, CA 92868</b>		Copy To: <b>Steve Defibaugh</b>		Company: <b>Kinder Morgan Energy Partners</b>		Sampler Signature: 	
Email To: <b>steve_defibaugh@kindermorgan.com</b> <b>eric_davis@krm.com</b>		Purchase Order No.:		Name: <b>Steve Defibaugh</b>		Sample Date: <b>6/20/17</b>	
Phone: 714-560-4802 Fax: 714-560-4801		Project Name: <b>SFPP Norwalk</b>		Address: <b>1100 Town &amp; Country Road</b> <b>Orange, CA 92868</b>			
				ATL Project Manager: <b>Marlon Cartin</b>			

ITEM #	SAMPLE ID	LOCATION/ DESCRIPTION	MATRIX	SAMPLE TYPE (G-GRAB C-COMP)	SAMPLING		TOTAL # OF CONTAINERS	Analysis Test			Comments
					DATE	TIME		Full VOCs + Organometals List (8260B)	TPH-gas (8015B)	TPH-l, TPH-oli, Total TPH (8015B)	
1	INF-06-20	INFLUENT	WW	G	6/20/16	0:00	8	X	X	X	N024674 - 01
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											

Relinquished by (Signature and Printed Name):  Date / Time: <u>6/20/17 1530</u>	Relinquished by (Signature and Printed Name):  Date / Time: <u>6/20/17 1530</u>	Turn Around Time (TAT): <input type="checkbox"/> A = Same Day <input type="checkbox"/> B = 24 Hours <input type="checkbox"/> C = 48 Hours <input type="checkbox"/> D = 72 Hours <input checked="" type="checkbox"/> E = 5 Workdays <input type="checkbox"/> F = 10 Workdays TAT Starts at 8 AM the following day if samples received after 3:00 PM.	Special Instruction:
Relinquished by (Signature and Printed Name):  Date / Time: <u>6/20/17 1534</u>	Relinquished by (Signature and Printed Name): <u>Yvan Rodriguez</u> Date / Time: <u>6/21/17 8:33 AM</u>		
Relinquished by (Signature and Printed Name):	Relinquished by (Signature and Printed Name):		

650 #: 0004

Matrix:			Preservatives:			Container Type:				
W = Water	WW = Wastewater		H = HCl	N = HNO3	S = H2SO4	T = Tube	V = VOA	P = Pint	A = Amber	
O = Oil	P = Product	S = Soil	Z = Zn(AC)2	O = NaOH	T = Na2S2O3	J = Jar	B = Tedlar	G = Glass		
Others/Specify:			Others/Specify:			M = Metal			P = Plastic	C = Can

# ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On: 6/20/2017 Workorder: N024674  
 Rep sample Temp (Deg C): 2.8 IR Gun ID: 2  
 Temp Blank:  Yes  No  
 Carrier name: Golden State Overnight  
 Last 4 digits of Tracking No.: 0004 Packing Material Used: Bubble Wrap  
 Cooling process:  Ice  Ice Pack  Dry Ice  Other  None

## Sample Receipt Checklist

- |   |   |                             |   |
|---|---|-----------------------------|---|
| 1. Shipping container/cooler in good condition?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| 2. Custody seals intact, signed, dated on shipping container/cooler?                    | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles?  | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 5. Sampler's name present in COC?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 6. Chain of custody signed when relinquished and received?                              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 7. Chain of custody agrees with sample labels?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 8. Samples in proper container/bottle?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 9. Sample containers intact?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 10. Sufficient sample volume for indicated test?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 11. All samples received within holding time?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 12. Temperature of rep sample or Temp Blank within acceptable limit?                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 13. Water - VOA vials have zero headspace?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 14. Water - pH acceptable upon receipt?<br>Example: pH > 12 for (CN,S); pH<2 for Metals | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |
| 15. Did the bottle labels indicate correct preservatives used?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 16. Were there Non-Conformance issues at login?<br>Was Client notified?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |
|   | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |

Comments:

Checklist Completed By: YR YR 6/26/2017

Reviewed By: MBC 6/27/2017

# ASSET Laboratories

## WORK ORDER Summary

20-Jun-17

**WorkOrder:** N024674

**Client ID:** CH2HI03

**Project:** SFPP-Norwalk

**QC Level:** RTNE

**Date Received:** 6/20/2017

**Comments:**

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N024674-001A	INF-06-20	6/20/2017 12:01:00 AM	6/27/2017	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			6/27/2017		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N024674-001B			6/27/2017		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			6/27/2017		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			6/27/2017		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N024674-002A	FOLDER	6/27/2017	6/27/2017		Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB
			6/27/2017		Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB



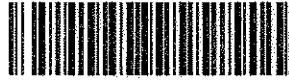


800-322-5555 www.gso.com

**Ship From**  
ASSET LABORATORIES  
MOLKY BRAR  
11110 ARTESIA BLVD. SUITE B  
CERRITOS, CA 90703

Tracking #: 536570004

**CPS**



**Ship To**  
ATL INC  
MARLON CARTIN  
3151 W. POST RD.,  
LAS VEGAS, NV 89118

**LVS**  
**LAS VEGAS**

**A**

**COD:** \$0.00  
**Weight:** 0 lb(s)  
**Reference:**

**C89102A**

**Delivery Instructions:**  
HOLD FOR PICK UP  
**Signature Type:** NOT REQUIRED



68435235

Print Date: 6/20/2017 3:54 PM

Package 1 of 2

**LABEL INSTRUCTIONS:**

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

2.8°C  
JAL # 2