FIRST QUARTER 2014 REMEDIATION PROGRESS REPORT

DEFENSE FUEL SUPPORT POINT NORWALK 15306 NORWALK BOULEVARD NORWALK, CALIFORNIA

Prepared for:

Defense Logistics Agency Energy 8725 John J. Kingman Road Fort Belvoir, Virginia 22060-6222

May 15, 2014

Prepared by



100 WEST WALNUT STREET • PASADENA • CALIFORNIA 91124

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A. Laboratory Analytical Reports

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ACRONYMS

aboveground storage tank
benzene, toluene, ethylbenzene, total xylenes
Defense Fuel Support Point
Defense Logistics Agency
Environmental Protection Agency
granular activated carbon
groundwater extraction
jet propellant
methyl tertiary butyl ether
National Pollutant Discharge Elimination System
operation, maintenance, and monitoring
photoionization detector
Regional Water Quality Control Board
South Coast Air Quality Management District
DFSP Norwalk facility
Tertiary butyl alcohol
total petroleum hydrocarbons
total petroleum hydrocarbons quantified as gasoline
total petroleum hydrocarbons quantified as diesel
United States Environmental Protection Agency
soil vapor extraction
volatile organic compounds

1. INTRODUCTION

This remediation progress report was prepared by Parsons on behalf of the Defense Logistics Agency (DLA) Energy for the Defense Fuel Support Point (DFSP) Norwalk facility, located at 15306 Norwalk Boulevard, in the City of Norwalk, California as shown in Figure 1. This report will summarize remediation activities performed at the site during the first quarter 2014 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 May 3, 2013[']. This report describes remediation systems present at the site, and for the period of January through March 2014, this report summarizes:

- Documentation of operation, maintenance, and monitoring (OM&M) of remediation systems performed by Parsons field personnel;
- A description of remedial activities and progress achieved through OM&M activities; and
- A remediation system evaluation.

2. **REMEDIATION SYSTEMS**

Soil and groundwater at the areas of concern are impacted with hydrocarbons mainly consisting of jet propellant (JP)-5, diesel, benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary butyl ether (MTBE), and tertiary butyl alcohol (TBA). MTBE and TBA are groundwater impacts that have resulted from SFPP operations and remediation of these impacts is being addressed by SFPP. Remediation systems by DLA Energy were installed to treat the hydrocarbon impacts in soil and groundwater. The purposes of these remediation systems are to reduce hydrocarbon concentrations to cleanup goals, to prevent off-site migration and contaminant mass containment, and ultimately achieve site closure within a reasonable timeframe.

The impacted DLA Energy areas consist of the north-central former tank farm, the northeastern property boundary and off-site under Holifield Park areas, the northwest corner of the site, and the former water tank and truck fueling areas.

The remediation systems consist of soil vapor extraction (SVE), groundwater extraction (GWE), treatment of extracted soil vapors and groundwater, biosparging, free product extraction via vacuum recovery, and absorbent sock installations for passive recovery of free product.

The SVE well network for hydrocarbon extraction from vadose zone subsurface impacts is installed in the following areas as illustrated on Figure 2: the central tank farm area, northwestern AST 80001 area, AST 80006 area, central AST 80008 area, AST 55004 area, northeast area, water tank area, and truck fueling area. SVE is performed using a blower to remove soil vapors from the subsurface. 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 described below. The soil vapors are then treated through four granular activated carbon (GAC) vessels where volatile organic compounds (VOCs) are absorbed onto the GAC beds and entrapped in the vessels. Operation of

the SVE and treatment system is conducted in accordance with Permit to Operate No. G6961 A/N 501179 issued by the South Coast Air Quality Management District (SCAQMD).

The GWE wells for hydrocarbon extraction from dissolved-phase subsurface impacts are installed in the northwestern area, central tank farm area, and north eastern boundary area. The GWE systems consists of five vertical extraction wells of which four are 6-inch diameter wells and one is a 4-inch diameter well; and exsitu-treatment system consisting of a surge tank; pump; three bag filter vessels; two MYCELX vessels; three GAC vessels; two ion exchange vessels; discharge flow meter; and level/pump control instrumentation. Operation of the GWE and treatment system is conducted in accordance with a National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CAG994004, CI No. 7585).

The biosparge wells for hydrocarbon removal from dissolved-phase subsurface impacts are located from areas throughout the tank farm area and eastern boundary area. The biosparging wells are tied into the former total fluids extraction system. Under the optimized remedial system, biosparging is currently off-line.

Vacuum free product recovery is conducted on an as-needed basis at wells where measurable product thickness is greater than 1 foot. Wells are gauged bimonthly and vacuum recovery is conducted when necessary. Absorbent socks are installed in wells that have historically contained measureable free product and changed-out as needed.

A summary of remediation wells throughout the site is presented in Table 1. Table 1 includes well identifications, well construction details, well use, and operational status at the end of the first quarter 2014. The remediation system layout is presented in Figure 2.

3. OPERATIONS, MAINTENANCE, AND MONITORING

During this reporting period, OM&M of the remediation systems included the following tasks:

- Performed weekly maintenance and monitoring of the SVE and GWE wells, and the SVE and GWE treatment systems;
- Collected and analyzed system influent vapor and groundwater samples;
- Respiration testing; and
- Changed out MYCELX (MX-7 and MX-21) and bag filters (No. 1, 2, and 3).

In addition, system effluent vapor and water samples were collected and analyzed for compliance with SCAQMD and NPDES permits. The effluent water sampling results will be provided under separate cover in the NPDES discharge monitoring report for the first quarter 2014 period.

During this reporting period, remediation system inspections were performed on a weekly basis. For these inspections, vapor flow rate, vacuum, volumes of extracted groundwater, hours of operation, and other system parameters were recorded during system operation. Remediation system operations activities for the first quarter 2014 are summarized in Tables 2 and 3. The remediation systems operated during the first quarter 2014 with the following exceptions:

- GWE system was off:
 - \checkmark To assess obstruction and minimize restriction in carbon train; and

- ✓ Overnight on March 20^{th} due to power failure.
- SVE system was off:
 - ✓ January 8^{th} through March 6^{th} for respiration testing; and
 - ✓ Overnight on March 20^{th} due to power failure.

Overall during the first quarter 2014, the SVE system operated approximately 35.6 percent of the time (which was expected due to the pulsed-operation mode), while the GWE system operated approximately 97.6 percent of the time. Performance and compliance soil vapor and water samples from the SVE and GWE systems were collected during the first quarter 2014 when the systems were in operation. During the first quarter 2014, vapor samples were collected on March 21st; when the SVE system was operating. Water samples were collected on January 22nd, February 12th, and March 21st, when the GWE system was operating. The vapor and water samples were delivered to Calscience Environmental Laboratories (Calscience) for analysis. Calscience is a laboratory certified by the California Department of Public Health Environmental Laboratory Accreditation Program.

The vapor samples were analyzed for the following:

- Total petroleum hydrocarbons (TPH) quantified as hexane using EPA Method TO-3M;
- BTEX and MTBE using EPA Method 8260B; and
- VOCs using EPA Method TO-15M.

The water samples were analyzed for the following:

- TPH quantified as gasoline (TPHg) and as diesel (TPHd) using EPA Method 8015Modified;
- VOCs using EPA Method 8260B;
- Metals (arsenic and copper) using EPA 6020;
- Oil and grease using SM5520B;
- Turbidity using SM2130B;
- Sulfides using SM4500S2-D;
- Residual chlorine using SM4500-CL F;
- Total suspended solids using SM2540 D;
- Settleable Solids using SM2540 F;
- Surfactants (MBAS) using SM5540C;
- Phenols using EPA 420.1; and
- Biological oxygen demand using EPA 405.1.

Analytical results for the influent vapor and water samples are summarized on Tables 4 and 5, respectively. The laboratory analytical reports are chain-of-custody documents for these samples are included in Appendix A.

Depths to product and groundwater in the GWE wells and specific monitoring wells were measured during the first quarter 2014 to the nearest 0.01 foot from the top of the well casing using an interface probe. The historical gauging results for selected wells are summarized in Table 6.

4. SUMMARY OF REMEDIATION PROGRESS

For the reporting period, the optimized remediation system consisted of SVE operating from the four horizontal wells that span through the entire former tank farm area and the six vertical wells in northeastern area; GWE from the northwest and northeastern areas; and vacuum product recovery from wells with product thickness greater than 1 foot.

The SVE system operated from four horizontal wells (HW-1, 3, 5, and 7) throughout the tank farm and six vertical wells (VEW-32 through VEW-37) from the northeast area. The SVE system operated approximately 35.6 percent of the time for the reporting period but was expected due to the pulsed-operation mode. The total mass of VOCs removed by SVE was approximately 0.108 pounds during the first quarter 2014 and since 1996, approximately 2,958 pounds (Table 2). The total mass removed by SVE does not include the mass removed by biodegradation.

Four wells, GW-2, GW-13, GW-15, and GW-16, were in operation during this reporting period for the GWE system. Overall, the GWE system operated approximately 97.6 percent of the time for the reporting period. During the fourth quarter and as referenced in Table 3; 1,950,806 gallons of water was extracted. Since 1996, approximately 69.8 million gallons of groundwater have been extracted via the GWE system. Based on the TPH results for influent water samples and total groundwater extracted, the mass of TPH removed by GWE was approximately 0.053 pounds (Table 3) during the first quarter 2014.

During the reporting period, approximately 76 gallons of free product was recovered from the site via vacuum recovery and/or passive absorbent socks (Table 3).

5. SYSTEM EVALUATION AND OPTIMIZATION

Remedial system optimization is on-going to ensure most effective operation for cleanup at the site. The most recent activities undertaken as part of remedial optimization include groundwater monitoring program evaluation which lead to the revised monitoring plan and respiration testing which resulted in pulsed-operation of the SVE system.

For the SVE treatment system, during the first quarter 2014, influent vapor-phase VOC concentrations were low and reaching asymptotic levels. The operations status of the SVE wells at the end of the first quarter 2014 is also shown on Table 1. Respiration testing was performed during first quarter 2014. Based on analysis of this data, pulsed system operation has commenced. Individual wells for VOC concentration will be measured to better determine specific wells to operate and determine those wells that have reached asymptotic levels whereby SVE is no longer deemed as an effective means of remediation.

Groundwater monitoring from the second semiannual event in October resulted in an overall lower groundwater elevation and a higher number of wells with measurable free product. The overall area of impacts and plumes are similar to previous events. As indicated by the nondetected, stable, or declining dissolved groundwater analytical data from off-site wells (as illustrating in the semiannual groundwater monitoring reports) and from the previous aquifer pump testing and groundwater capture zone analysis, the current GWE systems in the northeast area and northwest corner have been successful in preventing further impacted groundwater from

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flowing off-site and have captured and treated a significant portion of impacted groundwater under Holifield Park and in the northwest corner. Results from the first semiannual 2014 groundwater monitoring event will be described in the second 2014 remediation progress report. GWE in the northwest and northeast areas will continue to assist with contaminant containment. In addition, vacuum product recovery and absorbent sock installation will continue as needed in wells where measureable product thickness is over 1 foot.

Optimization is on-going and all total fluids and extraction wells will be assessed to determine if additional extraction wells for the GWE system should be brought online as needed to take advantage of the lower groundwater levels and increase in measureable LNAPL in wells.

6. PLANNED SECOND QUARTER 2014 ACTIVITIES

During the second quarter 2014, DLA Energy plans to continue to focus remedial efforts on the northwest, northeast, and north-central areas. The following OM&M activities are planned to be completed during the second quarter 2014:

- Continue weekly maintenance and monitoring of the SVE and GWE treatment systems;
- Measure individual well vapor concentrations;
- Review current LNAPL thickness and evaluate nearby total fluid and extraction wells to determine if it is beneficial for remediation to bring any wells online with the GWE system;
- Collect and analyze system influent vapor and groundwater samples;
- Pulsed operation of SVE treatment system will continue; and
- Pre-mobilization activities for soil excavation effort.

The SVE and GWE systems for the northwest, northeast, and north-central areas will continue to operate. Based on SVE assessment, determine remedial operations for vadose zone impacts. Vacuum product recovery and absorbent sock installation will continue. The remediation activities and progress for the second quarter 2014 will be described in the Second Quarter 2014 Remediation Progress Report to be submitted by August 15, 2014.

TABLES

TABLE 1 Remediation Well Construction and Status

							Well Operation
Remediation	Well	Installation	Casing	Total Danih	Screen	Remediation	Status at End of
Area	Wein	Date	Elevation	Total Depth	Interval (ft	Well Function	First Quarter
			(ft msl)	(ft bgs) ⁻	bgs)		2014
	GW-1	06/12/95	75.97	63	25 - 60	GWE	OFF
	GW-2	06/12/95	75.78	63	25 - 60	GWE	ON
North-West	GW-3	06/13/95	75.79	63	25 - 60	GWE	OFF
(AST 80001)	GW-4	06/12/95	75.78	63	25 - 60	GWE	OFF
	GW-13	04/26/07	76.85	67	25 - 65	GWE	ON
	VEW-23	8/3/2004	76.20	25	15 - 25	SVE	OFF
	HW-1, HW-3, HV	V-5, HW-7		25	continuous	SVE	ON
	GMW-21 ³	08/02/91	76.23	50	25 - 50	TFE/GWE	OFF
	GW-14	04/26/07	76.54	67	25 - 65	GWE	OFF
	SP-8, SP8a, SP- SP-11b, SP-11c, SP-13c, SP-13d, SP-14c, SP-15, S 17a, SP-18, SP- 21, SP-22,SP-23 23c, SP-24, SP-2 25, SP-25a, SP-2 26, SP-26a	8b, SP-9,SP-1 SP-13, SP-13 SP-14, SP-14 SP-15a, SP-16 18a, SP-20, Sl , SP-23a, SP- 24a, SP-24b, \$ 25b, SP-25c, \$	11, SP-11a, 3a, SP-13b, 4a, SP-14b, 5, SP-17, SP- P-20a, SP- 23b, SP- 23b, SP- SP-24c, SP- SP-25d, SP-	50	48 - 50	Biosparge	OFF
	TF-8	09/22/95	74.86	63	25 - 60	TFE, GWE	OFF
	TF-9	09/22/95	74.47	63	25 - 60	TFE, GWE	OFF
	TF-10	09/25/95	73.61	63	25 - 60	TFE, GWE	OFF
North-Central	TF-11	09/25/95	74.40	63	25 - 60	TFE, GWE	OFF
(AST 80002.	TF-13	09/26/95	75.47	63	25 - 60	TFE, GWE	OFF
AST 80004,	TF-14	09/27/95	74.35	63	25 - 60	TFE, GWE	OFF
AST 80006,	TF-15	09/28/95	74.78	63	25 - 60	TFE, GWE	OFF
AST 80007,	TF-16	09/28/95	75.89	63	25 - 60	TFE, GWE	OFF
AST 80008,	TF-17	09/29/95	74.88	63	25 - 60	TFE, GWE	OFF
AST 8001,	IF-18	07/06/94	73.94	50.5	20 - 50	IFE, GWE	OFF
AST 55004)	1F-19 TE 00	10/03/95	75.07	63	25 - 60	TFE, GWE	OFF
	1F-20 TE 21	10/03/95	75.08	63	25 - 60	TFE, GWE	OFF
	TE-22	10/02/05	74.90	63	25 - 60	TFE, GWE	
	TF-23	07/05/94	74.70	50.5	20 - 50	TFE GWE	OFF
	TE 24 ⁴	09/26/95	76.43	63	25 - 60	TFE GWE	OFF
	TF-24	04/04/01	74.85	47	26 - 36	TFE GWE	OFF
	TF-26	04/03/01	75.85	47	26 - 36	TFE GWE	OFF
	VFW-20	8/2/2004	75.95	25	15 - 25	SVF	OFF
	VEW-21	8/2/2004	75.75	25	15 - 25	SVE	OFF
	VEW-22	8/2/2004	77.09	20	10 - 20	SVE	OFF
	VEW-24	8/2/2004	76.13	25	15 - 25	SVE	OFF
	VEW-25	8/2/2004	76.14	25	15 - 25	SVE	OFF
	VEW-26	8/4/2004	77.50	25	15 - 25	SVE	OFF
	VEW-27	8/4/2004	77.07	25	15 - 25	SVE	OFF
	VEW-28	8/3/2004	75.67	25	10 - 25	SVE	OFF
	VEW-29	8/3/2004	75.25	25	10 - 25	SVE	OFF
	VEW-30	8/3/2004	75.65	25	10 - 25	SVE	OFF

TABLE 1Remediation Well Construction and Status

Defense Fuel Support Point Norwalk, Norwalk California

Remediation Area	Well	Installation Date	Casing Elevation (ft msl) ¹	Total Depth (ft bgs) ²	Screen Interval (ft bgs)	Remediation Well Function	Well Operation Status at End of First Quarter 2014
	BSP-1	04/18/07		50	47 - 49	Biosparge	OFF
	BSP-2	04/18/07		50	48 - 50	Biosparge	OFF
	BSP-3	04/17/07		48	46 - 48	Biosparge	OFF
	BSP-4	04/17/07		49	47 - 49	Biosparge	OFF
	BSP-5	04/17/07		49.5	47 - 49	Biosparge	OFF
	BSP-6	04/18/07		49	47 - 49	Biosparge	OFF
	BSP-7	04/19/07		48	46 - 48	Biosparge	OFF
	BSP-8	04/19/07		48	46 - 48	Biosparge	OFF
	BSP-9	04/19/07		48	46 - 48	Biosparge	OFF
North-East	GMW-58	08/14/98	75.48	55	20 - 55	GWE	OFF
	GW-15	04/26/07	74.94	60.5	20.5 - 60.6	GWE	ON
	GW-16	07/07/09	76.33	63	20.5 - 60.5	GWE	ON
	SP-21a, SP-21b,	SP-48		50	48 - 50	Biosparge	OFF
	VEW-32	04/11/07		25	10 - 25	SVE	ON
	VEW-33	04/11/07		25	10 - 25	SVE	ON
	VEW-34	04/11/07		25	10 - 25	SVE	ON
	VEW-35	04/10/07		25	10 - 25	SVE	ON
	VEW-36	04/10/07		25	10 - 25	SVE	ON
	VEW-37	40/10/07		25	10 - 25	SVE	ON
	VEW-31	8/3/2004	75.10	15	5 - 15	SVE	OFF
	VW-07		75.64			SVE	OFF
Former Truck	VW-09		75.77			SVE	OFF
	VW10	03/23/04	75.78	30.5	20 - 30	SVE	OFF
and Adjacent	VW11	03/23/04	75.55	25	20 - 25	SVE	OFF
Water Tank	VW12	03/23/04	75.79	30.5	15 - 30	SVE	OFF
Area	VW13	03/23/04	75.42	29	25 - 29	SVE	OFF
/1104	VW14	03/23/04	75.89	28	15 - 28	SVE	OFF
	VW15	04/14/04	75.45	30	20 - 30	SVE	OFF
	VW16	04/14/04	75.29	30	20 - 30	SVE	OFF

Notes:

1. ft msl = feet above mean sea level.

2. ft bgs = feet below ground surface.

3. GMW-21 is also referred to as TF-24.

4. TF-24 is also referred to as "old TF-24" or "former TF-24". See also Note 3.

--- = information not available.

TABLE 2 Vapor Remediation System Operation Summary

	-		Influent			
	Cumulative	Incremental	Analytical TPH	Influent PID		
	Hours of	Hours of	Concentration	Reading	System	Mass
System	Operation	Operation	(ppmv as	(ppmv as	Flow	Removed
Inspection Date	(hours)	(hours)	hexane)	hexane)	(cfm)	(pounds)
2011 Totals						106
2012 Totals	2012 Totals					60
First Quarter 201	.3 Total					15.6
Second Quarter 2	2013 Total					11.9
Third Quarter 20	13 Total					1.566
Fourth Quarter 2	013 Total					0.388
3/21/2014	20,856	858		4.2	140	0.108
First Quarter 201	4 Total					0.108
Cumulative Mass	Removed Sinc	e VES Reconstr	uction			195
Cumulative Mass	Removed Since	e April 1996				2,958

Defense Fuel Support Point Norwalk, Norwalk California

TPH = total petroleum hydrocarbons

ppmv = parts per million by volume

cfm = cubic feet per minute

--- = not applicable or not available

TABLE 3

Groundwater Remediation System - Historical Volumetric Flow

	Groundwater			Groundwater	Total		TPH-d	
	Extracted			Extracted from	Groundwater		Removed	
	from the North	Groundwater	Groundwater	the North-East	Extracted	TPH-d	from the	Product
	West Area	Removed	Removed	Area	from the Site	Concentration	Site	Recovery
Date	(gallons)	from GW-15	from GW-16	(gallons)	(gallons)	(µg/L)	(pounds)	(gallons) ¹
2009 Totals	2,350,770	1,585,448	441,829	2,027,277	4,212,900			
2010 Totals	2,318,790	1,339,100	1,110,122	2,449,222	4,081,540			
2011 Totals	2,595,532	2,364,088	1,810,568	4,174,656	6,401,590		0.0119	
2012 Totals	3,094,814	1,405,897	1,602,614	3,008,511	5,751,810		0.0596	
First Quarter 2013 Totals	437,918	437,918	209,800	382,028	748,341		0.0282	
Second Quarter 2013 Totals	415,194	159,266	180,503	339,769	673,397	6300	0.0250	
Third Quarter 2013 Totals	935,333	338,458	429,572	768,030	1,568,777	2500	0.0327	153.75
Fourth Quarter 2013 Totals	182,983	91,654	170,268	151,094	304,954	2500	0.0064	130
01/03/14	43,141	107,794	20,359	34,270	72,191		0.0015	
01/06/13	40,813	14,796	19,031	31,835	68,670		0.0014	
01/07/14	14,222	4,921	6,583	11,170	23,280		0.0005	1.5
01/08/14	13,151	4,561	6,096	10,361	21,241		0.0004	
01/10/14	28,840	10,677	13,341	22,914	48,079		0.0010	
01/13/14	41,277	15,338	18,790	31,458	68,400		0.0014	
01/14/14	16,051	6,207	7,387	12,317	27,390		0.0006	1.5
01/17/14	38,795	13,896	17,437	28,994	63,003		0.0013	
01/22/14	70,185	25,706	31,352	51,689	115,872		0.0024	13.75
01/24/14	28,195	10,373	12,347	21,014	45,570		0.0010	
01/27/14	39,340	15,467	17,873	30,232	66,615		0.0014	1.5
01/29/14	28,714	11,107	12,883	22,455	47,395		0.0010	
01/31/14	28,963	11,102	12,866	22,938	49,245		0.0010	
02/03/14	39,135	15,148	17,542	30,247	64,545		0.0013	7.75
02/04/14	168	411	463	137	1,645		0.0000	
02/05/14	12,385	4,488	5,462	9,992	21,168		0.0004	
02/07/14	24,408	9,380	11,661	19,457	41,439	3800	0.0013	
02/10/14	39,743	15,329	18,713	31,780	67,508		0.0021	
02/12/14	25,364	9,628	11,810	20,105	43,677		0.0014	1.5
02/14/14	26,598	10,339	12,564	21,391	46,445		0.0015	
02/19/14	65,560	24,713	29,767	50,391	107,603		0.0034	11

TABLE 3

Groundwater Remediation System - Historical Volumetric Flow

Defense Fuel Support Point Norwalk, Norwalk California

	Groundwater			Groundwater	Total		TPH-d	
	Extracted			Extracted from	Groundwater		Removed	
	from the North	Groundwater	Groundwater	the North-East	Extracted	TPH-d	from the	Product
	West Area	Removed	Removed	Area	from the Site	Concentration	Site	Recovery
Date	(gallons)	from GW-15	from GW-16	(gallons)	(gallons)	(µg/L)	(pounds)	(gallons) ¹
2009 Totals	2,350,770	1,585,448	441,829	2,027,277	4,212,900			
2010 Totals	2,318,790	1,339,100	1,110,122	2,449,222	4,081,540			
2011 Totals	2,595,532	2,364,088	1,810,568	4,174,656	6,401,590		0.0119	
2012 Totals	3,094,814	1,405,897	1,602,614	3,008,511	5,751,810		0.0596	
First Quarter 2013 Totals	437,918	437,918	209,800	382,028	748,341		0.0282	
Second Quarter 2013 Totals	415,194	159,266	180,503	339,769	673,397	6300	0.0250	
02/21/14	26,516	9,462	12,351	19,803	43,048		0.0014	1.25
02/24/14	41,947	14,862	17,842	31,729	68,503		0.0022	
02/26/14	25,355	9,246	11,103	19,350	40,804		0.0013	1.5
02/28/14	26,019	9,597	11,481	20,078	43,240		0.0014	
03/03/14	41,994	15,719	18,781	32,244	69,622		0.0022	14.5
03/04/14	13,798	5,131	6,113	10,610	22,143		0.0007	
03/07/14	37,794	14,789	16,822	28,839	61,908		0.0020	
03/10/14	41,289	15,831	18,027	31,476	68,017		0.0022	
03/12/14	23,699	9,647	10,489	18,694	38,653		0.0012	1.5
03/14/14	23,984	9,429	10,937	18,152	41,540		0.0013	11.75
03/17/14	40,129	15,960	18,650	31,776	68,867		0.0022	
03/19/14	25,749	10,271	11,853	20,335	42,995		0.0014	
03/21/14	8,723	3,581	3,907	7,001	14,070		0.0004	
03/24/14	35,641	15,369	16,625	29,161	62,280		0.0020	
03/26/14	26,522	10,799	12,032	20,757	44,975		0.0014	1.5
03/28/14	25,682	10,487	11,689	19,900	42,065		0.0013	
03/31/14	39,784	16,202	18,328	30,614	67,095		0.0021	5.5
First Quarter 2014 Totals	2,339,339	1,075,518	1,062,705	905,658	1,950,806	3800	0.0531	76

Notes:

1. Product recovery is accumulated from vacuum recovery operations from specific wells, including GMW-62, and estimated quantity from passive absorbent sock changeouts.

Abbreviaitons:

TPH-d = total petroleum hydrocarbons quantified as diesel.

 μ g/L = micrograms per liter

TABLE 4 Extracted Vapor Analytical Results

Defense Fuel Support Point Norwalk, Norwalk California

	EPA TO-3M ¹		ΕΡΑ ΤΟ)-15, ppb (v,	/v)		EPA 8260	B (M), ppb	(v/v)		
Date Sampled	VOCs	Benzene	Ethylbenzene	Toluene	Xylenes	MTBE	Benzene	Ethylbenzene	Toluene	Xylenes	MTBE
04/29/11	17	21	2.9	ND(5.0)	6.3	ND(2.0)	21	ND(5.0)	ND(5.0)	ND(15)	ND(10)
05/27/11	13						21	ND(5.0)	ND(5.0)	ND(15)	ND(10)
06/30/11	11						18	ND(5.0)	ND(5.0)	ND(15)	ND(10)
07/27/11	8.6						13	12	ND(5.0)	13	ND(10)
08/26/11	7.8						12	20	ND(5.0)	26.4	ND(10)
09/30/11	6.9						12	11	ND(5.0)	11	ND(10)
10/28/11	5.4						11	15	ND(5.0)	28	ND(10)
11/30/11	8.5						12	6.7	ND(5.0)	10	ND(10)
12/28/11	8.6						24	9.6	7.5	22	ND(10)
01/26/12	3.7						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
02/24/12	4.6						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
03/28/12	4.1						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
04/27/12	3.6						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
05/31/12	6.5						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
06/28/12	5.3						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
07/26/12	4.1						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
08/31/12	ND(3.0)						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
09/27/12	ND(3.0)						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
10/30/12	6.1						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
11/26/12	4.2						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
12/19/12	3.2						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
01/31/13	4.6						N/A	N/A	N/A	N/A	N/A
02/27/13	4.5						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
03/28/13	6.7						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
04/22/13	5.4						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
07/29/13	ND(3.0)						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
08/12/13	ND(3.0)						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
10/30/13	3.0						14	ND(5.0)	ND(5.0)	ND(15)	ND(10)
11/27/13	ND(3.0)						ND(5.0)	ND(5.0)	ND(5.0)	15	ND(10)
12/19/13	ND(3.0)						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)
03/21/14	ND(3.0)						ND(5.0)	ND(5.0)	ND(5.0)	ND(15)	ND(10)

¹ EPA-TO-3M in ppm v/v as hexane

VOCs = volatile organic compounds

MTBE = methyl tertiary butyl ether

ppm = parts per million

ND = not detected

TABLE 5

Extracted Groundwater Analytical Results

Defense Fuel Support Point Norwalk, Norwalk California

Date	TPH-fp	TPH-d	TPH-g	Benzene	Toluene	Ethylbenzene	mp-Xylenes	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME
Sampled	mg/L	mg/L	mg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
04/22/08	580			71	25	17	42	30	14	4.6	ND(2.0)	ND(2.0)	ND(2.0)
05/01/08	700	810											
05/16/08	780	760											
06/12/08	150			ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	25	7.7	ND(2.0)	ND(2.0)	ND(2.0)
07/19/08		170	ND(100)	27	0.77	7	13	7.9	ND(10)	3.9	ND(2.0)	ND(2.0)	ND(2.0)
09/03/08									ND(10)				
09/08/08				27	0.99	8.3	13	8.2	ND(10)	3.1	ND(2.0)	ND(2.0)	ND(2.0)
09/15/08				36	0.81	8.5	12	6.8	ND(10)	3.8	ND(2.0)	ND(2.0)	ND(2.0)
11/13/08				27	ND(0.50)	2	12	5.6	ND(10)	ND(0.50)	ND(2.0)	ND(2.0)	ND(2.0)
11/26/08				ND(0.50)	ND(0.50)	ND(0.50)	1.3	0.61	16	5.6	ND(2.0)	ND(2.0)	ND(2.0)
12/13/08				ND(0.50)	ND(0.50)	0.56	1.1	0.54	19	7	ND(2.0)	ND(2.0)	ND(2.0)
01/09/09				ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(10)	ND(0.50)	ND(2.0)	ND(2.0)	ND(2.0)
03/05/09		ND(100)		21	ND(0.50)	2.5	7.2	3.1	12	3.1	ND(2.0)	ND(2.0)	ND(2.0)
03/18/09		200	170	21	ND(0.50)	2.9	7	4.5	13	3.3	ND(2.0)	ND(2.0)	ND(2.0)
05/15/09		ND(100)											
06/04/09		190		26	ND(0.50)	3.3	10	6.6	ND(10)	4.8	ND(2.0)	ND(2.0)	ND(2.0)
06/24/09				28	ND(0.50)	2.5	7.6	4.2	12	4.4	ND(2.0)	ND(2.0)	ND(2.0)
05/28/09		170		27	ND(0.50)	2.6	7.9	4.5	ND(10)	3.6	ND(2.0)	ND(2.0)	ND(2.0)
11/19/09		ND(100)		15	ND(0.50)	1.3	5.8	2.9	5.6	2.3	1.2	ND(2.0)	ND(2.0)
10/26/10				20	ND(0.50)	1.6	7.4	2.1	8	2.9	1.1	ND(2.0)	ND(2.0)
06/01/11		90											
07/14/11				13	ND(0.50)	2.3	6.2	3	6.7	1.6	ND(2.0)	ND(2.0)	ND(2.0)
09/13/11				5	ND(0.50)	0.37	3.4	0.99	ND(10)	1.3	ND(2.0)	ND(2.0)	ND(2.0)
09/22/11				5.5	ND(0.50)	0.92	7.2	1.6	5.6	1.1	ND(2.0)	ND(2.0)	ND(2.0)
10/19/11				8.2	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(10)	ND(1.0)	ND(2.0)	ND(2.0)	ND(2.0)
01/20/12				14	ND(0.50)	2.8	7.8	1.2	16	1.3	0.42	ND(2.0)	ND(2.0)
02/03/12		120	340										
02/17/12				10	ND(0.50)	1.5	7.4	1.2	15	1.2	0.39	ND(2.0)	ND(2.0)
02/24/12		180		26	ND(0.50)	1.0	7	1.2	ND(10)	1.2	0.41	ND(2.0)	ND(2.0)
03/02/12				23	ND(0.50)	1.4	11	2.4	8.7	1.4	0.47	ND(2.0)	ND(2.0)
03/06/12				28	ND(0.50)	1.0	9	1.7	13	1.1	0.37	ND(2.0)	ND(2.0)
06/15/12				39	13	17.0	88	26	ND(10)	1.3	0.52	ND(2.0)	ND(2.0)
08/31/12		820	940										
09/27/12		5,300	3800										
10/23/12				67	60	110	460	140	ND(10)	ND(0.50)	ND(2.0)	ND(2.0)	ND(2.0)
01/31/13		3,600											
05/01/13		6,300	5500	20	4.7	8	41	14	4.8	0.56	ND(2.0)	ND(2.0)	ND(2.0)
07/12/13		ND(100)	ND(100)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(10)	ND(0.50)	ND(2.0)	ND(2.0)	ND(2.0)
08/20/13		ND(100)	ND(100)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(10)	ND(0.50)	ND(2.0)	ND(2.0)	ND(2.0)
12/19/13		ND(100)	ND(100)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(10)	ND(0.50)	ND(2.0)	ND(2.0)	ND(2.0)
02/07/14		1,500	2300										
03/21/14				61	5.1	23	150	45	ND(10)	0.87	ND(2.0)	ND(2.0)	ND(2.0)

TPH-fp = total petroleum hydrocarbons quantified as fuel products

TPH-d = total hydrocarbons quantified as diesel

TPH-g = total petroleum hydrocarbons quantified as gasoline

TBA = tert-butyl alcohol

MTBE = methyl tert-butyl ether DIPE = Diisopropyl ether ETBE = ethyl tert-butyl ether TAME = tert-amyl-methyl ether

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
GMW-4	02/26/14		31.66	31.75	0.09	
GMW-4	03/03/14		31.48	31.57	0.09	
GMW-4	03/11/14		31.44	31.53	0.09	
GMW-6	03/21/07	77.31		28.06		49.25
GMW-6	04/27/07	77.31		28.02		49.29
GMW-6	08/28/07	77.31		28.51		48.80
GMW-6	11/12/07	77.31		28.48		48.83
GMW-6	02/05/08	77.31		29.32		47.99
GMW-6	04/11/08	77.31		28.34		48.97
GIVIV-6	07/24/08	77.31		28.81		48.50
GIVIV-6	10/13/08	77.31		29.48		47.83
GIVIW-6	02/09/09	77.31		29.62		47.69
GMW-6	07/16/09	77.31		29.21		40.10
GMW-6	10/19/09	77.31		29.31		47.30
GMW-6	04/07/10	77.31		29.34		47.57
GMW-6	04/12/10	77.31		29.42		47.89
GMW-6	01/06/11	77.31		30.23		47.08
GMW-6	02/24/11	77.31		29.29		48.02
GMW-6	04/08/11	77.31		28.86		48.45
GMW-6	07/07/11	77.31		29.16		48.15
GMW-6	10/06/11	77.31		29.62		47.69
GMW-6	04/12/12	77.31		30.86		46.45
GMW-6	04/19/12	77.31		30.57		46.74
GMW-6	01/10/13	77.31		31.96		45.35
GMW-6	04/02/13	77.31		31.91		45.40
GMW-6	04/08/13	77.31		31.91		45.40
GMW-12	04/30/07	75.21		25.51		49.70
GMW-12	11/12/07	75.21		25.46		49.75
GMW-12	04/14/08	75.21		25.72		49.49
GMW-12	07/24/08	75.21		26.06		49.15
GIVIVV-12	10/14/08	75.21		26.83		48.38
GIVIW-12 GMW/12	02/10/09	75.21		20.39		40.02
GMW-12 GMW-12	10/10/09	75.21		20.30		40.03
GMW-12	04/08/10	75.21		27.02		48.04
GMW-12	04/12/10	75.21		26.83		48.38
GMW-12	01/08/11	75.21		28.05		47.16
GMW-12	04/07/11	75.21		26.54		48.67
GMW-12	07/08/11	75.21		26.57		48.64
GMW-12	10/07/11	75.21		27.25		47.96
GMW-12	04/12/12	75.21		28.38		46.83
GMW-12	04/16/12	75.21		28.25		46.96
GMW-12	01/10/13	75.21		29.97		45.24
GMW-12	04/03/13	75.21		29.88		45.33
GMW-12	04/08/13	75.21		29.94		45.27
GMW-15	03/21/07	76.21		26.38		49.83
GIVIW-15	04/27/07	76.21		26.90		49.31
GIVIW-15	08/28/07	76.21		26.70		49.51
GIVIVV-15 GM/M_15	02/05/09	76.21		21.30 07.70		40.03 10 12
GMW-15	02/03/08	76.21		27.70		40.43 <u>1</u> 8 02
GMW-15	07/24/08	76.21		27.52		48 69
GMW-15	10/13/08	76.21		28.36		47.85
GMW-15	02/09/09	76.21		28.51		47,70
GMW-15	04/20/09	76.21		28.31		47.90
GMW-15	07/16/09	76.21		28.32		47.89
GMW-15	10/19/09	76.21		28.90		47.31
GMW-15	04/08/10	76.21		28.51		47.70
GMW-15	04/12/10	76.21		28.24		47.97

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
GMW-15	01/06/11	76.21		29.10		47.11
GMW-15	04/08/11	76.21		27.81		48.40
GMW-15	07/07/11	76.21		28.05		48.16
GMW-15	10/06/11	76.21		28.53		47.68
GMW-15	04/12/12	76.21		29.75		46.46
GMW-15	04/19/12	76.21		29.45		46.76
GMW-15	01/10/13	76.21		30.88		45.33
GMW-15	04/02/13	76.21		30.82		45.39
GMW-15	04/08/13	76.21		30.78		45.43
GMW-16	03/21/07	77.00		27.51		49.49
GMW-16	04/27/07	77.00		27.72		49.28
GMW-16	08/28/07	77.00		27.99		49.01
GMW-16	11/12/07	77.00		28.33		48.67
GMW-16	02/05/08	77.00		28.68		48.32
GMW-16	04/11/08	77.00		28.13		48.87
GMW-16	07/24/08	77.00		28.56		48.44
GMW-16	10/13/08	77.00		29.21		47.79
GMW-16	02/09/09	77.00		29.18		47.82
GMW-16	04/20/09	77.00		30.50		46.50
GIVIW-16	07/16/09	77.00		29.52		47.48
GIVIVV-16	10/19/09	77.00		30.24		46.76
GIVIVV-16	04/07/10	77.00		29.68		47.32
GIVIVV-16	04/12/10	77.00		29.38		47.62
GIVIVV-16	01/08/11	77.00		20.47		50.53
GIVIVV-16	10/06/11	77.00		29.04		47.90
GWW-16	04/12/12	77.00		29.40		47.52
GMW-16	04/12/12	77.00		30.33		40.47
GMW-16	04/10/12	77.00		31.68		45.32
GMW-16	04/02/13	77.00		31.66		45.32
GMW-16	04/08/13	77.00		31.65		45.35
GMW-18	03/21/07	75.36		25.18		50.18
GMW-18	04/30/07	75.36		25.72		49.64
GMW-18	08/28/07	75.36		25.62		49.74
GMW-18	11/12/07	75.36		26.29		49.07
GMW-18	02/05/08	75.36		26.73		48.63
GMW-18	04/14/08	75.36		25.91		49.45
GMW-18	10/14/08	75.36		27.00		48.36
GMW-18	02/10/09	75.36		26.50		48.86
GMW-18	04/20/09	75.36		26.80		48.56
GMW-18	07/17/09	75.36		27.41		47.95
GMW-18	10/19/09	75.36		27.91		47.45
GMW-18	04/08/10	75.36		27.30		48.06
GMW-18	04/12/10	75.36		27.44		47.92
GMW-18	10/01/10	75.36		27.80		47.56
GMW-18	01/08/11	75.36		27.86		47.50
GMW-18	04/12/12	75.36		28.54		46.82
GMW-18	04/20/12	75.36		28.45		46.91
GMW-18	04/05/13	75.36	29.66	30.33	0.67	NC
GMW-18	04/08/13	75.36	29.64	30.21	0.57	NC
GMW-19	03/21/07	76.83		27.41		49.42
GMW-19	04/30/07	76.83		27.48		49.35
GMW-19	08/28/07	76.83		28.00		48.83
GMW-19	11/12/07	76.83		28.04		48.79
GMW-19	02/05/08	76.83		28.67		48.16
GMW-19	04/14/08	76.83		27.64		49.19
GMW-19	07/24/08	/6.83		27.97		48.86
GIVIVV-19	10/14/08	/6.83		28.76		48.07
GIVIVV-19	02/10/09	/0.83		21.35		49.48
GIVIVV-19	04/20/09	10.03		20./1		4ð.1Z

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
GMW-19	07/17/09	76.83		28.79		48.04
GMW-19	10/19/09	76.83		29.54		47.29
GMW-19	04/08/10	76.83		29.05		47.78
GMW-19	04/12/10	76.83		29.16		47.67
GMW-19	01/08/11	76.83		NM		NC
GMW-19	07/08/11	76.83		NM		NC
GMW-19	10/06/11	76.83		29.06		47.77
GMW-19	04/12/12	76.83		30.26		46.57
GMW-19	04/18/12	76.83		30.09		46.74
GMW-19	01/10/13	76.83		31.56		45.27
GMW-19	04/03/13	76.83		31.49		45.34
GMW-19	04/08/13	76.83		31.60		45.23
GMW-21	04/27/07	76.23		26.41		49.82
GMW-21	11/09/07	76.23	27.34	27.37	0.03	NC
GMW-21	02/05/08	76.23		27.79		48.44
GMW-21	10/13/08	76.23		28.18		48.05
GMW-21	02/09/09	76.23		27.48		48.75
GMW-21	07/17/09	76.23		28.40		47.83
GMW-21	04/07/10	76.23		28.81		47.42
GMW-21	10/01/10	76.23		NM		NC
GMW-21	01/06/11	76.23		26.85		49.38
GMW-21	04/06/11	76.23		27.78		48.45
GMW-21	07/07/11	76.23		27.95		48.28
GMW-21	10/06/11	76.23		28.41		47.82
GMW-21	04/12/12	76.23		29.48		46.75
GMW-21	01/10/13	76.23	30.43	31.90	1.47	NC
GIVIVV-21	04/02/13	76.23	30.66	30.73	0.07	NC
GIVIVV-21	04/08/13	76.23	30.56	31.05	0.49	INC 45.20
GIVIVV-21	04/11/13	76.23	30.56	30.93	0.37	45.30
GIVIVV-21	04/15/13	76.23	30.57	31.09	0.52	45.14
GIVIVV-21	04/24/13	76.23	30.77	31.99	0.25	44.24
GN/W-21	04/29/13	76.23	30.75	21.12	0.33	43.13
GMW-21	05/13/13	76.23	30.71	31.43	0.72	44.00
GMW-21	05/20/13	76.23	30.76	31.29	0.53	44.86
GMW-21	05/28/13	76.20	30.70	31.03	0.32	45.20
GMW-21	06/04/13	76.20	30.75	31 13	0.38	45.10
GMW-21	06/18/13	76.23	30.83	31.64	0.81	44.59
GMW-21	06/28/13	76.23	30.83	31.69	0.86	44.54
GMW-21	07/02/13	76.23	30.93	31.35	0.42	44.88
GMW-21	07/09/13	76.23	31.00	31.37	0.37	44.86
GMW-21	07/16/13	76.23	30.99	31.65	0.66	44.58
GMW-21	07/23/13	76.23	31.00	31.8	0.80	44.43
GMW-21	07/31/13	76.23	31.03	31.92	0.89	44.31
GMW-21	08/07/13	76.23	31.12	31.75	0.63	44.48
GMW-21	08/13/13	76.23	31.16	31.45	0.29	44.78
GMW-21	08/23/13	76.23	31.18	32.12	0.94	44.11
GMW-21	08/27/13	76.23	31.20	32.14	0.94	44.09
GMW-21	09/03/13	76.23	31.23	32.15	0.92	44.08
GMW-21	09/10/13	76.23	31.29	32.12	0.83	44.11
GMW-21	09/16/13	76.23	31.29	31.98	0.69	44.25
GMW-21	09/24/13	76.23		31.43		44.80
GMW-21	09/30/13	76.23	28.76	30.72	1.96	45.51
GMW-21	10/09/13	76.23	31.23	31.77	0.54	44.46
GMW-21	10/15/13	76.23	31.29	31.4	0.11	44.83
GMW-21	10/21/13	76.23	28.75	30.51	1.76	45.72
GMW-21	10/29/13	76.23	31.32	32.11	0.79	44.12
GMW-21	11/04/13	76.23	31.34	32.15	0.81	44.08
GIVIVV-21	11/12/13	76.23	31.35	32.15	0.80	44.08
GIVIVV-21	11/19/13	/0.23	31.33	32.18	0.85	44.05

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
GMW-21	11/25/13	76.23	31.38	32.25	0.87	43.98
GMW-21	12/02/13	76.23	31.33	32.24	0.91	43.99
GMW-21	12/10/13	76.23	31.37	32.14	0.77	44.09
GMW-21	12/16/13	76.23	31.40	32.21	0.81	44.02
GMW-21	12/24/13	76.23	31.43	32.25	0.82	43.98
GMW-21	12/30/13	76.23	31.49	32.32	0.83	43.91
GMW-21	01/07/14	76.23	31.54	32.32	0.78	43.91
GMW-21	01/14/14	76.23	31.59	32.39	0.80	43.84
GMW-21	01/21/14	76.23	31.63	32.42	0.79	43.81
GMW-21	01/27/14	76.23	31.77	32.02	0.25	44.21
GMW-21	02/03/14	76.23	31.85	32.09	0.24	44.14
GMW-21	02/12/14	76.23		31.96		44.27
GMW-21	02/21/14	76.23		32.05		44.18
GMW-21	02/26/14	76.23	32.07	32.08	0.01	44.15
GMW-21	03/03/14	76.23	31.92	32.96	1.04	43.27
GMW-21	03/11/14	76.23	31.96	32.78	0.82	43.45
GMW-21	03/17/14	76.23	31.89	33.07	1.18	43.16
GMW-21	03/26/14	76.23	32.03	32.87	0.84	43.36
GMW-21	03/31/14	76.23	32.07	32.48	0.41	43.75
GMW-32	03/21/07	74.62		24.51		50.11
GMW-32	04/30/07	74.62		25.03		49.59
GMW-32	08/28/07	74.62		24.78		49.84
GMW-32	11/12/07	74.62		25.62		49.00
GMW-32	02/05/08	74.62		25.93		48.69
GIVIVV-32	04/14/08	74.62		25.11		49.51
GIVIVV-32	07/24/08	74.62		25.52		49.10
GIVIVV-32	10/14/08	74.62		26.35		48.27
GIVIVV-32	02/10/09	74.62		20.10		48.47
GIVIVV-32	04/20/09	74.02		27.20		47.34
GIVIVV-32	10/10/09	74.02		20.71		47.91
GMW-32	04/08/10	74.02		27.24		47.30
GMW-32	04/00/10	74.02		20.01		40.01
GMW-32	04/07/11	74.62		25.02		48.90
GMW-32	10/06/11	74.62		26.72		40.00
GMW-32	04/12/12	74.62		27.94		46.68
GMW-32	04/19/12	74.62		27.83		46.79
GMW-32	01/10/13	74.62		29.31		45.31
GMW-32	04/03/13	74.62		29.34		45.28
GMW-32	04/08/13	74.62		29.32		45.30
GMW-33	03/21/07	74.88		25.61		49.27
GMW-33	04/30/07	74.88		25.44		49.44
GMW-33	08/28/07	74.88		25.94		48.94
GMW-33	11/12/07	74.88		25.97		48.91
GMW-33	02/05/08	74.88		26.87		48.01
GMW-33	04/11/08	74.88		25.58		49.30
GMW-33	07/24/08	74.88		26.11		48.77
GMW-33	10/13/08	74.88		26.93		47.95
GMW-33	02/10/09	74.88		27.05		47.83
GMW-33	07/16/09	74.88		27.41		47.47
GMW-33	04/07/10	74.88		26.82		48.06
GMW-33	10/01/10	74.88		27.43		47.45
GMW-33	04/07/11	74.88		NM		NC
GMW-33	10/06/11	74.88		NM		NC
GMW-33	04/12/12	74.88		NM		NC
GMW-33	01/10/13	74.88		NM		NC
GMW-33	04/03/13	74.88		NM		NC
GMW-40	04/30/07	73.13		23.74		49.39
GMW-40	11/12/07	73.13		24.60		48.53
GMW-40	04/11/08	73.13		24.09		49.04

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
GMW-40	10/14/08	73.13		25.01		48.12
GMW-40	02/10/09	73.13		25.05		48.08
GMW-40	04/20/09	73.13		27.40		45.73
GMW-40	10/19/09	73.13		26.00		47.13
GMW-40	04/08/10	73.13		25.31		47.82
GMW-40	04/12/10	73.13		25.20		47.93
GMW-40	10/01/10	73.13		25.83		47.30
GMW-40	10/04/10	73.13		25.70		47.43
GMW-40	01/07/11	73.13		NM		NC
GMW-40	04/11/11	73.13		NM		NC
GMW-40	10/10/11	73.13		25.13		48.00
GMW-40	04/12/12	73.13		26.48		46.65
GMW-41	04/30/07	74.46		25.06		49.40
GMW-41	11/12/07	74.46		25.87		48.59
GMW-41	04/11/08	74.46		25.44		49.02
GMW-41	07/24/08	74.46		25.80		48.66
GMW-41	10/14/08	74.46		26.35		48.11
GMW-41	02/10/09	74.46		26.58		47.88
GMW-41	04/20/09	74.46		26.61		47.85
GIVIVV-41	10/19/09	74.46		27.34		47.12
GIVIVV-41	04/08/10	74.46		26.64		47.82
GIVIVV-41	04/12/10	74.40		26.44		48.02
GIVIVV-41	10/04/10	74.40		20.91		47.55
GN/W-41	01/07/11	74.40		27.00		40.00
GMW-41	04/00/11	74.40		20.01		40.45 NC
GMW-41	07/08/11	74.46		26.01		48.45
GMW-41	10/06/11	74.46		26.61		47.85
GMW-41	10/10/11	74.46		26.53		47.93
GMW-41	04/12/12	74.46		27.77		46.69
GMW-41	04/16/12	74.46		27.54		46.92
GMW-41	01/11/13	74.46		29.47		44.99
GMW-41	04/03/13	74.46		29.29		45.17
GMW-41	04/08/13	74.46		29.16		45.30
GMW-42	04/30/07	75.50		26.07		49.43
GMW-42	11/12/07	75.50		26.38		49.12
GMW-42	04/11/08	75.50		25.95		49.55
GMW-42	10/16/08	75.50		26.92		48.58
GMW-42	04/07/10	75.50		27.60		47.90
GMW-42	10/01/10	75.50		28.13		47.37
GIVIVV-42	01/08/11	75.50		28.03		47.47
	04/12/12	73.30		∠0.00 25.22		40.02 40.12
GM/M/_44	11/12/07	71 14.40 71 15		20.02		49.13 18 62
GMW-44	04/14/08	74.40 74.45		25.62		40.03
GMW-44	07/24/08	74.45		25.45		48.50
GMW-44	10/14/08	74 45		26.60		47 85
GMW-44	02/10/09	74.45		26.87		47.58
GMW-44	04/20/09	74.45		26.51		47.94
GMW-44	10/19/09	74.45		27.43		47.02
GMW-44	04/08/10	74.45		26.77		47.68
GMW-44	04/12/10	74.45		26.51		47.94
GMW-44	01/07/11	74.45		27.47		46.98
GMW-44	04/08/11	74.45		26.05		48.40
GMW-44	07/08/11	74.45		NM		NC
GMW-44	10/06/11	74.45		26.91		47.54
GMW-44	04/12/12	74.45		28.13		46.32
GMW-44	04/16/12	74.45		27.92		46.53
GMW-44	01/10/13	74.45		29.54		44.91

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
GMW-44	04/03/13	74.45		29.51		44.94
GMW-44	04/08/13	74.45		29.42		45.03
GMW-45	03/21/07	75.67		26.09		49.58
GMW-45	04/27/07	75.67		26.48		49.19
GMW-45	08/28/07	75.67		26.42		49.25
GMW-45	11/12/07	75.67		26.94		48.73
GMW-45	02/05/08	74.45		27.52		46.93
GMW-45	04/11/08	75.67		26.76		48.91
GMW-45	07/24/08	75.67		27.27		48.40
GMW-45	10/13/08	75.67		27.95		47.72
GMW-45	02/09/09	74.45		27.68		46.77
GMW-45	04/20/09	75.67		27.58		48.09
GMW-45	07/16/09	75.67		27.91		47.76
GMW-45	10/19/09	75.67		28.54		47.13
GMW-45	04/07/10	75.67		28.22		47.45
GMW-45	04/12/10	75.67		27.85		47.82
GMW-45	01/06/11	75.67		28.75		46.92
GMW-45	04/07/11	75.67		27.38		48.29
GMW-45	07/07/11	75.67		27.63		48.04
GMW-45	10/07/11	75.67		28.22		47.45
GMW-45	04/12/12	75.67		29.30		46.37
GMW-45	04/19/12	75.67		29.02		46.65
GMW-45	01/10/13	75.67		30.35		45.32
GMW-45	04/02/13	75.67		30.34		45.33
GIVIVV-45	04/08/13	75.67		30.29		45.38
GIVIVV-47	03/21/07	75.98		26.30		49.68
GIVIVV-47	04/27/07	75.98		26.71		49.27
GIVIVV-47	00/20/07	75.90		20.74		49.24
GWW-47	02/05/08	75.90		27.12		40.00
GMW-47	02/03/08	75.90		26.93		40.23
GMW-47	07/24/08	75.98		20.33		49.00
GMW-47	10/13/08	75.00		28.19		47.79
GMW-47	02/09/09	75.98		28.07		47.91
GMW-47	04/20/09	75.98		27.66		48.32
GMW-47	07/16/09	75.98		28.22		47.76
GMW-47	07/20/09	75.98		28.10		47.88
GMW-47	10/19/09	75.98		28.48		47.50
GMW-47	01/11/10	75.98		29.10		46.88
GMW-47	04/07/10	75.98		NM		NC
GMW-47	04/12/10	75.98		28.52		47.46
GMW-47	01/06/11	75.98		29.05		46.93
GMW-47	04/07/11	75.98		27.50		48.48
GMW-47	07/07/11	75.98		27.83		48.15
GMW-47	10/06/11	75.98		28.41		47.57
GMW-47	01/10/12	75.98		28.71		47.27
GMW-47	04/12/12	75.98		29.55		46.43
GMW-47	04/20/12	75.98		29.26		46.72
GMW-47	01/10/13	75.98		30.57		45.41
GMW-47	04/02/13	75.98		30.55		45.43
GMW-47	04/08/13	75.98		30.55		45.43
GMW-57	07/07/11	76.66		28.53		48.13
GMW-57	10/06/11	/6.66		29.12		47.54
GIVIVV-57	01/09/12	70.00		29.48		47.18
	04/12/12	76.60		30.15		40.51
GIVIV-57	04/17/12	/0.00		29.80		40.01
GIVIVV-57	01/10/13	/ b.bb 76.66		31.18 21.40		45.48
GN/N/-57	04/02/13	70.00		31.10 31.0/		40.40
GIVIV - 37	04/00/13	10.00		31.04		4J.0Z

		Top of Casing	Depth to	Depth to	Apparent Product	Groundwater
Well	Date	Elevation	Product	Water	Thicknose	Elevation
		(feet msl)	(feet btoc)	(feet btoc)	(foot)	(feet msl)
GMW-58	07/08/11	75 48		26 46		49.02
GMW-58	10/06/11	75.48		27.11		48.37
GMW-58	01/10/12	75.48		27.42		48.06
GMW-58	04/12/12	75.48		28.20		47.28
GMW-58	04/18/12	75.48		27.86		47.62
GMW-58	01/11/13	75.48		29.26		46.22
GMW-58	04/03/13	75.48		20.20		46.25
GMW-58	04/08/13	75.48		29.17		46.31
GMW-59	07/07/11	75.40		25.69		49.59
GMW-59	10/06/11	75.28		26.35		48.93
GMW-59	01/10/12	75.28		26.80		48.48
GMW-59	04/12/12	75.28	27 55	27.56	0.01	NC.
GMW-59	04/20/12	75.28		27.28		48.00
GMW-59	01/10/13	75.28		28.60		46.68
GMW-59	01/10/13	75.20		20.00		46.66
GMW-59	04/08/13	75.20		20.02		46.00
GMW-61	11/01/04	75.20		29.02		40.20
GNW-61	02/28/05	75.60		20.02		47.30 51.70
	02/20/05	75.00		23.01		52.40
	03/02/05	75.60		22.10		53.42
GIVIVV-61	03/06/06	75.60		24.53		51.07
	09/06/06	75.60		24.04		50.96
GIVIVV-61	08/26/06	75.60		25.13		50.47
GIVIVV-61	12/01/06	75.60		25.60		50.00
GIVIVV-61	03/21/07	75.60		26.01		49.59
GIVIVV-61	04/27/07	75.60		26.25		49.35
GIVIVV-61	08/28/07	75.60		26.21		49.39
GIVIVV-61	11/12/07	75.60		20.07		48.93
GIVIVV-61	02/05/08	75.60		27.17		48.43
GIVIVV-61	04/11/08	75.60		26.29		49.31
GIVIVV-61	07/24/08	75.60		27.01		48.59
GIVIVV-61	10/13/08	75.60		27.73		47.87
GIVIVV-61	02/09/09	75.60		27.56		48.04
GIVIVV-61	04/20/09	75.60		27.14		48.46
GIVIVV-61	07/16/09	75.60		27.69		47.91
GMW-61	07/20/09	75.60		27.84		47.76
GMW-61	10/19/09	75.60		28.22		47.38
GMW-61	01/11/10	75.60		28.81		46.79
GMW-61	04/07/10	75.60		27.67		47.93
GMW-61	04/12/10	75.60		27.22		48.38
GMW-61	01/08/11	75.60		28.37		47.23
GMW-61	04/08/11	75.60		26.68		48.92
GMW-61	07/07/11	75.60		27.23		48.37
GMW-61	10/06/11	75.60		27.92		47.68
GMW-61	01/10/12	75.60		28.41		47.19
GMW-61	04/12/12	75.60		29.06		46.54
GMW-61	04/19/12	75.60		28.71		46.89
GMW-61	01/11/13	75.60		30.05		45.55
GMW-61	04/03/13	75.60		30.11		45.49
GMW-61	04/08/13	75.60		30.01		45.59
GMW-62	07/02/07	76.34		27.03		49.31
GMW-62	02/05/08	76.34		27.79		48.55
GMW-62	04/14/08	76.34		26.87		49.47
GMW-62	07/24/08	76.34		27.98		48.36
GMW-62	10/14/08	76.34		28.24		48.10
GMW-62	02/10/09	76.34		28.31		48.03
GMW-62	04/20/09	76.34		27.94		48.40
GMW-62	07/17/09	76.34		28.15		48.19
GMW-62	07/21/09	76.34		28.30		48.04
GMW-62	10/19/09	76.34		29.00		47.34

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
GMW-62	01/11/10	76.34		29.51		46.83
GMW-62	04/12/10	76.34		28.24		48.10
GMW-62	01/10/11	76.34	28.78	29.08	0.30	NC
GMW-62	04/07/11	76.34	26.89	28.57	1.68	NC
GMW-62	07/07/11	76.34	28.03	28.14	0.11	NC
GMW-62	10/06/11	76.34	28.45	29.39	0.94	NC
GMW-62	01/09/12	76.34	28.97	29.02	0.05	NC
GMW-62	04/12/12	76.34	29.58	29.68	0.10	NC
GMW-62	04/18/12	76.34	29.40	29.46	0.06	NC
GMW-62	01/11/13	76.34		30.62		45.72
GMW-62	04/03/13	76.34	30.42	31.36	0.94	NC
GMW-62	04/08/13	76.34	30.35	32.13	1.78	NC
GMW-62	04/11/13	76.34	30.56	32.42	1.86	43.92
GMW-62	04/15/13	76.34	30.46	33.48	3.02	42.86
GMW-62	04/24/13	76.34	30.83	33.05	2.22	43.29
GMW-62	05/02/13	76.34	30.01	33.3	3.29	43.04
GMW-62	05/07/13	76.34	29.96	33.27	3.31	43.07
GMW-62	05/13/13	76.34	29.98	33.29	3.31	43.05
GMW-62	05/20/13	76.34	30.3	32.62	2.32	43.72
GIVIVV-62	06/03/13	76.34	30.24	32.81	2.57	43.53
GIVIVV-62	06/12/13	76.34	30.52	33.98	3.40	42.30
GIVIVV-62	06/28/13	76.34	31.02	33.14	2.12	43.20
GIVIVV-62	00/20/13	76.34	30.72	34.02	3.30	42.32
GIVIVV-62	07/02/13	76.34	30.25	33.33	3.20	42.01
GN/W-62	07/16/13	76.34	30.31	22.04	2.88	41.19
GMW-62	07/10/13	76.34	30.90	35.04	2.00	42.30
GMW-62	07/31/13	76.34	30.03	3/ 33	3.42	42.01
GMW-62	08/05/13	76.34	30.57	35.43	4 86	40.91
GMW-62	08/13/13	76.34	30.97	34.35	3.38	41.99
GMW-62	08/19/13	76.34	30.6	35.79	5.19	40.55
GMW-62	08/27/13	76.34	31.02	34.53	3.51	41.81
GMW-62	09/03/13	76.34	30.65	35.37	4.72	40.97
GMW-62	09/10/13	76.34	30.71	33.77	3.06	42.57
GMW-62	09/16/13	76.34	30.45	34.02	3.57	42.32
GMW-62	09/24/13	76.34	30.58	34.02		42.32
GMW-62	09/30/13	76.34	30.39	34.36	3.97	41.98
GMW-62	10/09/13	76.34	30.44	33.75	3.31	42.59
GMW-62	10/15/13	76.34	30.4	34.12	3.72	42.22
GMW-62	10/21/13	76.34	30.42	34.29	3.87	42.05
GMW-62	10/29/13	76.34	30.56	34.19	3.63	42.15
GMW-62	11/04/13	76.34	30.46	34.49	4.03	41.85
GMW-62	11/12/13	76.34	30.59	34.31	3.72	42.03
GMW-62	11/19/13	76.34	30.46	34.65	4.19	41.69
GMW-62	11/25/13	76.34	30.58	34.1	3.52	42.24
GIVIVV-62	12/02/13	76.34	30.37	34.61	4.24	41.73
GIVIVV-62	12/10/13	76.34	30.51	34.08	3.57	42.26
	12/10/13	76.24	30.44	34.45	4.01	41.09
GIVIVV-62	01/07/17	76.34	31.22	34.1 31 22	2.40 2.80	41.04
GMW-62	01/14/14	76.34	30.87	35.83	2.09	40.51
GMW-62	01/21/14	76 34	30.66	36.98	6.32	39.36
GMW-62	01/27/14	76.34	31.58	34.00	2 42	42.34
GMW-62	02/03/14	76.34	30.95	34 87	3.92	41.47
GMW-62	02/12/14	76.34	31.56	34 14	2.58	42,20
GMW-62	02/18/14	76.34	31.27	35.13	3.86	41.21
GMW-62	02/26/14	76.34	31.71	33.96	2.25	42.38
GMW-62	03/03/14	76.34	31.41	34.73	3.32	41.61
GMW-62	03/11/14	76.34	31.77	33.74	1.97	42.60
GMW-62	03/17/14	76.34	31.37	34.56	3.19	41.78

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
GMW-62	03/26/14	76.34	31.62	34.10	2.48	42.24
GMW-62	03/31/14	76.34	31.36	34.91	3.55	41.43
GMW-65	07/17/09	76.78		28.65		48.13
GMW-65	07/21/09	76.78		28.83		47.95
GMW-65	10/19/09	76.78		29.60		47.18
GMW-65	01/11/10	76.78		29.80		46.98
GMW-65	04/12/10	76.78		28.68		48.10
GMW-65	01/08/11	76.78		29.39		47.39
GMW-65	04/07/11	76.78		27.98		48.80
GIVIVV-65	07/07/11	76.78		28.63		48.15
GIVIVV-65	10/06/11	76.78		29.18		47.60
GIVIVV-65	01/09/12	76.78		29.43		47.30
GMW-65	04/12/12	76.78		20.85		40.03
GMW-65	01/11/13	76.78		31.08		45 70
GMW-65	04/03/13	76.78		31.07		45.71
GMW-65	04/08/13	76.78		30.92		45.86
GMW-66	10/19/09	77.00		29.73		47.27
GMW-66	04/12/10	77.00		29.64		47.36
GMW-66	04/07/11	77.00		28.63		48.37
GMW-66	07/07/11	77.00		28.96		48.04
GMW-66	10/06/11	77.00		29.48		47.52
GMW-66	04/12/12	77.00		30.46		46.54
GMW-66	04/17/12	77.00		30.11		46.89
GMW-66	01/10/13	77.00		31.36		45.64
GMW-66	04/02/13	77.00		31.34		45.66
GMW-66	04/08/13	77.00		31.25		45.75
GW-2	04/30/07	75.78		26.52		49.26
GW-2	11/12/07	75.78		10101		10.00
GW-2	04/11/08	76.39		27.39		49.00
GW-2	10/13/08	76.39		28.31		48.08
GW-2	02/09/09	76.39		27.61		48.78
GW-2	01/11/10	76.39		29.26		47.13
GW-2	04/07/10	76.39		29.45		46.94
GW-2	01/06/11	75.78		32.45		43.33
GW-2	04/06/11	75.78		28.31		47.47
GW-2	07/07/11	75.78		28.25		47.53
GW-2	10/06/11	75.78		28.47		47.31
GW-2	04/12/12	75.78		29.34		46.44
GW-2	04/19/12	75.78		28.99		46.79
GW-2	01/10/13	/5./8		30.42		45.36
GW-2	04/02/13	/ J. / V 75 70		30.25		40.00
GW-2	04/06/13	73.86		26.65		45.07
GW-3	11/12/07	75.00		20.03		48.68
GW-3	04/11/08	76.56		27.92		48.64
GW-3	07/24/08	75.79		27.79		48.00
GW-3	10/13/08	75.79		28.39		47.40
GW-3	02/09/09	75.79		27.12		48.67
GW-3	04/20/09	75.79		26.30		49.49
GW-3	10/19/09	75.79		29.24		46.55
GW-3	04/07/10	76.56		55.57		20.99
GW-3	04/12/10	75.79		28.84		46.95
GW-3	10/01/10	75.79		29.10		46.69
GW-3	04/06/11	75.79		28.50		47.29
GW-3	07/08/11	75.79		28.36		47.43
GW-3	10/06/11	/5./9 75.70		28.65		47.14
GW-3	04/12/12	/ 0./9 75.70		29.30		40.44
G VV-3	01/10/13	13.13		30.49		40.00

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
GW-3	04/02/13	75.79		30.38		45.41
GW-3	04/08/13	75.79		30.26		45.53
GW-6	04/27/07	76.38		27.14		49.24
GW-6	11/12/07	77.41		27.75		49.66
GW-6	04/11/08	76.38		27.52		48.86
GW-6	07/24/08	76.38		27.75		48.63
GW-6	10/13/08	76.38		28.54		47.84
GW-6	02/09/09	76.38		27.38		49.00
GW-6	04/20/09	76.38		28.41		47.97
GW-6	10/19/09	76.38		29.32		47.06
GW-6	04/07/10	76.38		30.21		46.17
GW-6	04/12/10	76.38		29.61		46.77
GW-6	01/06/11	76.38		29.45		46.93
GW-6	04/06/11	76.38		28.35		48.03
GW-6	07/07/11	76.38	28.51	28.52	0.01	NC
GW-6	10/06/11	76.38		28.88		47.50
GW-6	04/12/12	76.38		29.88		46.50
GW-6	04/18/12	76.38		29.65		46.73
GW-6	01/10/13	76.38		31.13		45.25
GW-6	04/02/13	76.38		31.03		45.35
GW-6	04/08/13	76.38		31.00		45.38
GW-13(6")	11/12/07	76.85		28.31		48.54
GW-13(6")	07/24/08	77.45		28.91		48.54
GW-13(6")	10/13/08	77.45		29.29		48.16
GW-13(6")	02/09/09	76.85		28.88		47.97
GVV-13(6°)	04/20/09	76.85		29.48		47.37
GVV-13(6)	10/19/09	70.80		29.92		46.93
GW-13(0)	04/12/10	70.00		29.91		40.94
GW-13(0)	01/00/11	70.03		20.40		43.73
GW-13(6")	07/07/11	70.03		29.49		47.30
GW-13(6")	10/06/11	76.85		29.45		47.40
GW-13(6")	04/12/12	76.85		29.04		46.33
GW-13(6")	04/18/12	76.85		30.27		46.58
GW-13(6")	01/10/13	76.85		31.63		45.22
GW-13(6")	04/02/13	76.85		31.51		45.34
GW-13(6")	04/08/13	76.85		31.41		45.44
GW-14(1")	01/12/10	76.55		29.84		46.71
GW-14(6")	11/09/07	76.54		27.85		48.69
GW-14(6")	04/14/08	76.54		27.36		49.18
GW-14(6")	07/24/08	76.54		26.02		50.52
GW-14(6")	10/13/08	76.54		28.79		47.75
GW-14(6")	02/10/09	76.54		26.62		49.92
GW-14(6")	04/20/09	76.54		28.27		48.27
GW-14(6")	10/19/09	76.54		27.46		49.08
GW-14(6")	04/08/10	76.54		28.70		47.84
GW-14(6")	04/12/10	76.54		28.40		48.14
GW-14(6")	01/08/11	76.54		29.45		47.09
GW-14(6")	04/08/11	76.54		27.98		48.56
GW-14(6")	07/08/11	76.54		28.31		48.23
GW-14(6")	10/06/11	76.54		28.93		47.61
GW-14(6")	04/12/12	/6.54		29.95		46.59
GW-14(6")	04/20/12	/6.54		29.90		46.64
GVV-14(6°)	01/10/13	70.54		33.29		43.25
GW-14(b [°])	04/03/13	/ 0.04 76 54		31.29 24.47		40.20 45.27
GW-14(0)	04/00/13	70.04 75.26	27.50	31.17 27.55		40.07 NC
GW-15(1) GW-15(1")	10/16/09	75.30	27.00	21.00	0.05	
GW-15(1")	02/00/00	75.30	27.08	28.02	0.01	NC
GW-15(1")	07/17/09	75.36	28,51	28.59	0.08	NC

	_	Top of Casing	Depth to	Depth to	Apparent Product	Groundwater
Well	Date	Elevation	Product	Water	Thickness	Elevation
		(feet msl)	(feet btoc)	(feet btoc)	(feet)	(feet msl)
GW-15(1")	04/08/10	75.36	27.74	29.43	1.69	NC
GW-15(6")	04/11/08	74.94		26.19		48.75
GW-15(6")	10/19/09	74.94		NM		NC
GW-15(6")	04/12/10	74.94	27.58	29.63	2.05	NC
GW-15(6")	04/08/11	74.94	26.75	26.76	0.01	NC
GW-15(6")	07/07/11	74.94	27.57	27.61	0.04	NC
GW-15(6")	10/06/11	74.94	28.38	28.40	0.02	NC
GW-15(6")	04/12/12	74.94	29.54	29.55	0.01	NC
GW-15(6")	01/11/13	74.94		30.39		44.55
GW-15(6")	04/03/13	74.94	29.13	35.20	6.07	NC
GW-16(1")	07/17/09	76.55		28.87		47.68
GW-16(1")	01/12/10	76.55		29.94		46.61
GW-16(1")	04/07/11	76.33		28.55		47.78
GW-16(6")	10/19/09	76.33		29.94		46.39
GW-16(6")	04/12/10	76.33		28.71		47.62
GVV-16(6")	07/07/11	76.33		28.96		47.37
GVV-16(6)	10/06/11	76.33		29.34		46.99
GW-16(0)	04/12/12	76.33		30.1∠ 31.20		40.21
GW-16(6")	01/11/13	76.33		31.30		45.03
MW-22 (MID)	04/03/13	70.55		31.10		43.23
MW-22 (MID)	04/30/07	79.57		31.33		48.00
MW-22 (MID)	08/28/07	79.57		31.96		47.61
MW-22 (MID)	11/12/07	79.57		32 19		47.38
MW-22 (MID)	02/05/08	79.57		32.51		47.06
MW-22 (MID)	04/11/08	79.57		31.83		47.74
MW-22 (MID)	10/13/08	79.57		33.01		46.56
MW-22 (MID)	02/09/09	79.57		32.96		46.61
MW-22 (MID)	04/20/09	79.57		32.65		46.92
MW-22 (MID)	07/16/09	79.57		33.51		46.06
MW-22 (MID)	07/20/09	79.57		33.96		45.61
MW-22 (MID)	10/19/09	79.57		33.87		45.70
MW-22 (MID)	01/11/10	79.57		34.14		45.43
MW-22 (MID)	04/07/10	79.57		34.02		45.55
MW-22 (MID)	04/12/10	79.57		33.62		45.95
MW-22 (MID)	01/07/11	79.57		34.50		45.07
	04/06/11	79.57		33.39		46.18
MW-22 (MID)	10/06/11	79.57		33.34		46.23
MW-22 (MID)	01/09/12	79.57		33.72		40.00
MW-22 (MID)	04/12/12	79.57		34 22		45.35
MW-22 (MID)	04/18/12	79.57		33.98		45.59
MW-22 (MID)	01/11/13	79.57		35.48		44.09
MW-22 (MID)	04/03/13	79.57		35.32		44.25
MW-22 (MID)	04/08/13	79.57		35.30		44.27
MW-26	04/30/07	77.40		28.18		49.22
MW-26	11/12/07	77.40		28.75		48.65
MW-26	04/11/08	77.40		28.46		48.94
MW-26	07/24/08	77.40		29.00		48.40
MW-26	10/13/08	77.40		29.42		47.98
MW-26	02/09/09	77.40		29.11		48.29
MW-26	04/20/09	77.40		29.42		47.98
MW-26	10/19/09	77.40		30.00		47.40
MVV-26	04/07/10	//.40		30.24		47.16
IVIVV-26	04/12/10	77.40		29.82		47.58
	01/07/11	77.40		30.77		40.03
M\N/_26	07/08/11	77.40		29.02		41.00 17 02
MW-20	10/06/11	77.40		29.40		47 52
MW-26	04/12/12	77.40		30.77		46.63

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
MW-26	04/17/12	77.40		30.58		46.82
MW-26	01/11/13	77.40		32.17		45.23
MW-26	04/03/13	77.40		31.94		45.46
MW-26	04/08/13	77.40		31.86		45.54
MW-27	04/30/07	78.46		29.17		49.29
MW-27	11/12/07	78.46		29.75		48.71
MW-27	04/11/08	78.46		29.25		49.21
MW-27	07/24/08	78.46		29.96		48.50
MW-27	10/13/08	78.46		30.34		48.12
MW-27	02/09/09	78.46		30.44		48.02
MW-27	04/20/09	78.46		30.27		48.19
MW-27	10/19/09	78.46		31.23		47.23
MW-27	04/07/10	78.46		30.95		47.51
MW-27	04/12/10	78.46		30.79		47.67
MW-27	01/07/11	78.46		31.53		46.93
MW-27	04/06/11	78.46		29.82		48.64
MW-27	07/08/11	78.46		30.03		48.43
MW-27	10/06/11	/8.46		30.06		48.40
	04/12/12	/ ö.46		31.72		40.74
	04/17/12	/ ö.40 79.46		31.49		40.97
	01/11/13	78.40		33.24		45.22
IVIVV-27	04/03/13	70.40		33.02		45.44
	02/21/07	76.40	26.05	32.90	0.11	43.46 NC
PZ-3	03/21/07	76.17	20.03	20.10	0.11	NC
P7-3	11/12/07	76.17	20.00	20.00 NM	0.02	NC
P7-3	02/05/08	76.17		27.84		48.33
P7-3	07/24/08	76.17		27.33		48.84
P7-3	10/14/08	76.17		28.07		48.10
P7-3	02/10/09	76.17		27.31		48.86
PZ-3	04/20/09	76.17		27.94		48.23
PZ-3	07/16/09	76.17		28.97		47.20
PZ-3	04/08/10	76.17		28.40		47.77
PZ-3	04/12/10	76.17		28.14		48.03
PZ-3	01/08/11	76.17		28.85		47.32
PZ-3	04/08/11	76.17		27.63		48.54
PZ-3	07/08/11	76.17		27.85		48.32
PZ-3	10/07/11	76.17		28.46		47.71
PZ-3	04/12/12	76.17		29.48		46.69
PZ-3	04/19/12	76.17		29.30		46.87
PZ-3	01/11/13	76.17	30.20	33.08	2.88	NC
PZ-3	04/03/13	76.17	30.63	30.86	0.23	NC
PZ-3	04/08/13	76.17	30.56	30.99	0.43	NC
PZ-3	04/11/13	76.17	30.58	30.97	0.39	45.20
PZ-3	04/15/13	76.17	30.61	31.15	0.54	45.02
PZ-3	04/24/13	76.17	30.85	31.13	0.28	45.04
PZ-3	05/02/13	76.17	30.85	31.07	0.22	45.10
PZ-3	05/07/13	70.17	30.91	31.02	0.11	45.15
P7-3	05/13/13	76.17	30.04	30.9	0.00	45.27
PZ-3	05/23/13	70.17	30.81	31.11	0.20	40.00
P7-3	05/29/13	76.17	30.02	30.91	0.09	45.20
P7-3	06/18/13	76.17	30.04	30.93	0.09	40.24 11 RG
P7-3	06/28/13	76.17	30.06	31.01	0.51	44.96
P7-3	07/02/13	76.17		31.07		45 10
P7-3	07/09/13	76 17		31 14		45.03
PZ-3	07/16/13	76.17		31 14		45.03
PZ-3	07/22/13	76.17		31.21		44,96
PZ-3	07/31/13	76.17		31.25		44.92

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
PZ-3	08/07/13	76.17		31.29		44.88
PZ-3	08/13/13	76.17		31.31		44.86
PZ-3	08/23/13	76.17	31.30	31.73	0.43	44.44
PZ-3	08/27/13	76.17	31.33	31.87	0.54	44.30
PZ-3	09/04/13	76.17	31.40	31.66	0.26	44.51
PZ-3	09/10/13	76.17		31.51		44.66
PZ-3	09/17/13	76.17		31.48		44.69
PZ-3	09/24/13	76.17		31.50		44.67
PZ-3	10/02/13	76.17		31.45		44.72
PZ-3	10/09/13	76.17		31.37		44.80
PZ-3	10/15/13	76.17		31.36		44.81
PZ-3	10/22/13	76.17		31.45		44.72
PZ-3	10/29/13	76.17		31.56		44.61
PZ-3	11/04/13	76.17		31.55		44.62
PZ-3	11/12/13	76.17	31.57	31.64	0.07	44.53
PZ-3	11/19/13	76.17	31.55	31.65	0.10	44.52
PZ-3	11/25/13	76.17	31.61	31.77	0.16	44.40
PZ-3	12/02/13	76.17	31.52	31.66	0.14	44.51
PZ-3	12/10/13	76.17		31.59		44.58
PZ-3	12/17/13	76.17		31.63		44.54
PZ-3	12/24/13	76.17		31.67		44.50
PZ-3	12/31/13	76.17		31.75		44.42
PZ-3	01/07/14	76.17		31.77		44.40
PZ-3	01/14/14	76.17		31.8		44.37
PZ-3	01/21/14	76.17		31.83		44.34
PZ-3	01/27/14	76.17		31.89		44.28
PZ-3	02/03/14	76.17		31.97		44.20
PZ-3	02/12/14	76.17		32.03		44.14
PZ-3	02/21/14	76.17		32.13		44.04
PZ-3	02/26/14	76.17		32.18		43.99
PZ-3	03/03/14	76.17		32.18		43.99
PZ-3	03/11/14	76.17		32.2		43.97
PZ-3	03/17/14	76.17		32.16		44.01
PZ-3	03/26/14	76.17		32.22		43.95
PZ-3	03/31/14	76.17		32.22		43.95
TF-8	03/21/07	74.86		25.52		49.34
TF-8	04/30/07	74.86		25.54		49.32
	08/28/07	75.60		25.92		49.68
	11/12/07	74.86		26.12		48.74
	02/05/08	75.60		26.69		48.91
	04/11/08	74.86		25.78		49.08
	07/16/08	75.60		28.42		47.18
	07/24/08	/ 5.0U		27.05		48.55
	10/14/08 02/10/00	75.60		27.89		47.70
۱۲-٥ ۲۲ ٥	02/10/09	75.60		21.09		47.91
	04/08/10	75.00		20.30		47.30
	01/07/11	74.80		27.01		47.00
		71 96		21.90		40.90
	07/08/11	7/ 96		20.02		40.34
	10/07/11	74.00		20.00		40.20
	0//12/12	7/ 26		21.10 28.1/		41.00
	04/12/12	7/ 26		20.14		40.72
TF-8	01/11/13	74.86		29.30		45 51
TF-18	03/21/07	73.94	23 01	20.00	0.11	NC.
TF-18	04/30/07	73.94	24.30	24.35	0.05	NC.
TF-18	11/09/07	73.94		24.85		49.09
TF-18	02/05/08	73.94		25.49		48.45
TF-18	07/24/08	73.94		24.97		48.97

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
TF-18	10/14/08	73.94		25.62		48.32
TF-18	02/10/09	73.94		25.88		48.06
TF-18	07/16/09	73.94		26.42		47.52
TF-18	04/08/10	73.94	25.70	25.73	0.03	NC
TF-18	10/01/10	73.94		26.35		47.59
TF-18	01/08/11	73.94	26.65	26.86	0.21	NC
TF-18	04/07/11	73.94	24.95	25.11	0.16	NC
TF-18	07/08/11	73.94	25.30	25.40	0.10	NC
TF-18	10/06/11	73.94	25.95	25.97	0.02	NC
1F-18 TE 40	04/12/12	73.94		27.30		46.64
1F-18 TE 40	01/10/13	73.94	27.85	30.25	2.40	NC
1F-10 TE 10	04/03/13	73.94	20.04	20.00	0.76	14.07
TF-10 TF-18	04/11/13	73.94	27.65	29.07	2.02	44.07
TF-18	04/24/13	73.94	28.23	30.25	2.02	43.69
TF-18	04/29/13	73.94	28.08	30.05	1.97	43.89
TF-18	05/07/13	73.94	28.13	30.05	1.92	43.89
TF-18	05/13/13	73.94	28.14	29.93	1.79	44.01
TF-18	05/23/13	73.94	28.20	30.08	1.88	43.86
TF-18	05/28/13	73.94	28.01	29.27	1.26	44.67
TF-18	06/04/13	73.94	28.08	30.12	2.04	43.82
TF-18	06/12/13	73.94	28.29	30.04	1.75	43.90
TF-18	06/18/13	73.94	28.40	30.25	1.85	43.69
TF-18	06/28/13	73.94	28.41	30.01	1.60	43.93
TF-18	07/02/13	73.94	28.33	30.13	1.80	43.81
TF-18	07/08/13	73.94	28.46	30.09	1.63	43.85
IF-18	07/16/13	73.94	28.55	30.13	1.58	43.81
1F-18 TE 19	07/22/13	73.94	28.50	30.12	1.56	43.82
1F-18 TE 19	07/31/13	73.94	28.58	30.16	1.58	43.78
TF-10 TF-18	08/03/13	73.94	28.50	30.24	1.55	43.83
TF-18	08/19/13	73.94	28.69	30.30	1.01	43.64
TF-18	08/27/13	73.94	28.74	30.36	1.62	43.58
TF-18	09/03/13	73.94	28.70	30.37	1.67	43.57
TF-18	09/10/13	73.94	28.77	30.45	1.68	43.49
TF-18	09/16/13	73.94	28.07	30.41	2.34	43.53
TF-18	09/24/13	73.94	28.80	30.47	1.67	43.47
TF-18	09/30/13	73.94	28.68	29.47	0.79	44.47
TF-18	10/09/13	73.94	28.61	30.03	1.42	43.91
IF-18	10/15/13	73.94	28.65	30.26	1.61	43.68
1F-18 TE 40	10/22/13	73.94	31.24	32.00	0.76	41.94
1Γ-1δ ΤΕ 40	10/29/13	73.94	20.01	30.63	1.82	43.31
TF-10 TF-18	11/04/13	73.94	20.79	30.70	1.91	43.24
TF-18	11/18/13	73.94	28.90	30.48	1.73	43.46
TF-18	11/25/13	73.94	28.90	30.55	1.65	43.39
TF-18	12/02/13	73.94	28.84	30.34	1.50	43.60
TF-18	12/10/13	73.94	28.83	30.26	1.43	43.68
<u>TF-18</u>	12/16/13	73.94	28.85	30.51	1.66	43.43
TF-18	12/24/13	73.94	28.94	30.65	1.71	43.29
TF-18	12/30/13	73.94	29.00	30.69	1.69	43.25
TF-18	01/07/14	73.94	29.05	30.78	1.73	43.16
TF-18	01/14/14	73.94	29.04	30.74	1.70	43.20
	01/21/14	73.94	29.16	30.74	1.58	43.20
	01/27/14	/3.94	29.07	31.03	1.96	42.91
11-18 TE 40	02/03/14	73.94	29.27	31.05	1.78	42.89
11-10 TE-19	02/12/14	73.04	29.20	31.11		42.83
TF-18	02/10/14	73.94	29.29	31.20	1.31	42.74
TF-18	03/03/14	73.94	29.36	31.18	1.82	42.76

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
TF-18	03/11/14	73.94	29.35	31.20	1.85	42.74
TF-18	03/17/14	73.94	29.31	30.97	1.66	42.97
TF-18	03/26/14	73.94	29.43	31.13	1.70	42.81
TF-18	2/31/14	73.94	29.38	29.77	0.39	44.17
TF-21	03/21/07	75.60		25.51		50.09
TF-21	04/30/07	75.60		25.72		49.88
TF-21	08/28/07	75.60		26.17		49.43
TF-21	11/12/07	74.76		26.35		48.41
TF-21	02/05/08	75.60		27.25		48.35
TF-21	04/14/08	75.60		25.93		49.67
TF-21	07/24/08	74.96		26.51		48.45
TF-21	10/13/08	74.96		27.10		47.86
TF-21	02/10/09	75.60		26.72		48.88
TF-21	04/20/09	74.96		21.85		53.11
IF-21	07/17/09	75.60		27.31		48.29
1F-21 TF-01	10/19/09	74.96		29.84		45.12
1F-21 TE-04	04/08/10	75.60		27.30		48.30
1F-21 TE 04	04/12/10	74.96		27.00		47.96
1F-21 TE 04	10/01/10	74.96				NC 47.07
TE 21	01/08/11	74.90		27.09		47.07
TE-21	07/08/11	74.90		20.09		40.07
TF-21 TF-21	10/06/11	74.90		20.09		40.37
TF-21	04/12/12	74.90		27.23		47.73
TF-21	04/20/12	74.96		28.10		46.82
TF-21	01/11/13	74.96		29.63		45.33
TF-21	04/03/13	74.96		29.60		45.53
TF-21	04/08/13	74.96		29.90		45.06
TF-23	03/21/07	75.31		25.51		49.80
TF-23	04/30/07	75.31		25.67		49.64
TF-23	11/12/07	75.31		26.20		49.11
TF-23	02/05/08	75.31		26.75		48.56
TF-23	04/14/08	75.31		25.81		49.50
TF-23	07/24/08	75.31		26.45		48.86
TF-23	10/13/08	75.31		27.15		48.16
TF-23	02/10/09	75.31		26.46		48.85
TF-23	07/17/09	75.31		26.93		48.38
TF-23	04/08/10	75.31		27.20		48.11
TF-23	10/01/10	75.31		27.67		47.64
TF-23	01/08/11	75.31		27.88		47.43
11-23	04/08/11	75.31		26.43		48.88
1F-23	07/08/11	/5.31		26.76		48.55
1F-23	10/06/11	/5.31		27.34		47.97
1F-23 TE 00	04/12/12	75.31	28.38	28.41	0.03	
1F-23 TE 02	01/11/13	75.31		29.07		45.04
те 94	03/21/07	76.42	29.00	29.70	0.10	
TF-24	11/12/07	76.43	23.00	20.32	0.04	18.40
TF-24	Ω4/11/08	76.43		20.00		48.62
TF-24	07/24/08	76.43		28.10		48.33
TF-24	10/13/08	76.43		28.90		47.53
TF-24	02/09/09	76.43		29.90		46.53
TF-24	07/16/09	76.43		29.11		47.32
TF-24	04/07/10	76.43		29.20		47.23
TF-24	10/01/10	76.43		29.45		46.98
TF-24	01/08/11	76.43		29.45		46.98
TF-24	04/08/11	76.43		28.23		48.20
TF-24	07/07/11	76.43		28.47		47.96
TF-24	10/07/11	76.43		28.98		47.45
TF-24	04/12/12	76.43		29.98		46.45

Defense Fuel Support Point Norwalk, Norwalk California

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
TF-24	01/10/13	76.43		31.13		45.30
TF-24	04/02/13	76.43		31.11		45.32

Notes:

--- = not detected or applicable

feet btoc = feet below top of casing

feet msl = feet above mean sea level, based on Los Angeles County Datum, 1980

NM = not measured

NC = not calculated due to presence of product in well

FIGURES




APPENDIX A

Laboratory Analytical Reports



WORK ORDER NUMBER: 14-03-1603

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For Client: Parsons Government Services, Inc. Client Project Name: DFSP - Norwalk Attention: Mary Lucas 100 West Walnut Street Pasadena, CA 91124-0002

Ranjit K. F. Clarke

Approved for release on 03/31/2014 by: Ranjit Clarke Project Manager

ResultLink >

Email your PM >



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order: 14-03-1603

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 03/21/14. They were assigned to Work Order 14-03-1603.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

<i>Calscience</i> <i>nvironmental</i> <i>Laboratories, Inc.</i>		Sample Summary		
Client:	Parsons Government Services, Inc.	Work Order:	14-03-1603	
	100 West Walnut Street	Project Name:	DFSP - Norwalk	
	Pasadena, CA 91124-0002	PO Number:		
		Date/Time Received:	03/21/14 17:47	
		Number of Containers:	4	
A 44	Max I is a			

Attn: Mary Lucas

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
Effluent	14-03-1603-1	03/21/14 15:28	1	Air
After GAC-2	14-03-1603-2	03/21/14 15:26	1	Air
After GAC-1	14-03-1603-3	03/21/14 15:24	1	Air
Influent	14-03-1603-4	03/21/14 15:24	1	Air

alscience nvironmental aboratories, Inc.

|--|

Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA 8260B (M)
	Units:	ppb (v/v)
Project: DFSP - Norwalk		Page 1 of 5

Project: DFSP - Norwalk

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent	14-03-1603-1-A	03/21/14 15:28	Air	GC/MS KKK	N/A	03/22/14 19:28	140322L04
Parameter		Result	RI	<u> </u>	DF	Qualif	fiers
Benzene		ND	5.	0	1.00		
Toluene		ND	5.	0	1.00		
Ethylbenzene		ND	5.	0	1.00		
o-Xylene		ND	5.	0	1.00		
p/m-Xylene		ND	10)	1.00		
Methyl-t-Butyl Ether (MTBE)		ND	10)	1.00		
Tert-Butyl Alcohol (TBA)		ND	10)	1.00		
Diisopropyl Ether (DIPE)		ND	10)	1.00		
Ethyl-t-Butyl Ether (ETBE)		ND	10)	1.00		
Tert-Amyl-Methyl Ether (TAME)		ND	10)	1.00		
Ethanol		ND	50)	1.00		
1,1-Difluoroethane		ND	2.	0	1.00		
Isopropanol		ND	5.	0	1.00		
Surrogate		<u>Rec. (%)</u>	<u>Co</u>	ontrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		102	47	7-156			
1,2-Dichloroethane-d4		103	47	7-156			
Toluene-d8		100	47	7-156			



Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA 8260B (M)
	Units:	ppb (v/v)
Project: DFSP - Norwalk		Page 2 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
After GAC-2	14-03-1603-2-A	03/21/14 15:26	Air	GC/MS KKK	N/A	03/22/14 20:18	140322L04
Parameter	·	<u>Result</u>	<u>R</u> I	=	DF	Quali	fiers
Benzene		ND	5.	0	1.00		
Toluene		ND	5.	0	1.00		
Ethylbenzene		ND	5.	0	1.00		
o-Xylene		ND	5.	0	1.00		
p/m-Xylene		ND	10)	1.00		
Methyl-t-Butyl Ether (MTBE)		ND	10)	1.00		
Tert-Butyl Alcohol (TBA)		ND	10)	1.00		
Diisopropyl Ether (DIPE)		ND	10)	1.00		
Ethyl-t-Butyl Ether (ETBE)		ND	10)	1.00		
Tert-Amyl-Methyl Ether (TAME)		ND	10)	1.00		
Ethanol		ND	50)	1.00		
1,1-Difluoroethane		ND	2.	0	1.00		
Isopropanol		ND	5.	0	1.00		
Surrogate		<u>Rec. (%)</u>	<u>C</u>	ontrol Limits	Qualifiers		
1,4-Bromofluorobenzene		101	47	'-156			
1,2-Dichloroethane-d4		104	47	'-156			
Toluene-d8		102	47	'-156			

Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA 8260B (M)
	Units:	ppb (v/v)
Project: DFSP - Norwalk		Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
After GAC-1	14-03-1603-3-A	03/21/14 15:24	Air	GC/MS KKK	N/A	03/22/14 21:13	140322L04
Parameter		<u>Result</u>	RI	=	DF	Qualit	fiers
Benzene		ND	5.	D	1.00		
Toluene		ND	5.	D	1.00		
Ethylbenzene		ND	5.	D	1.00		
o-Xylene		ND	5.	D	1.00		
p/m-Xylene		ND	10)	1.00		
Methyl-t-Butyl Ether (MTBE)		ND	10)	1.00		
Tert-Butyl Alcohol (TBA)		ND	10)	1.00		
Diisopropyl Ether (DIPE)		ND	10)	1.00		
Ethyl-t-Butyl Ether (ETBE)		ND	10)	1.00		
Tert-Amyl-Methyl Ether (TAME)		ND	10)	1.00		
Ethanol		ND	50)	1.00		
1,1-Difluoroethane		ND	2.	D	1.00		
Isopropanol		ND	5.	0	1.00		
Surrogate		<u>Rec. (%)</u>	<u>Co</u>	ontrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		102	47	-156			
1,2-Dichloroethane-d4		104	47	-156			
Toluene-d8		99	47	-156			



Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA 8260B (M)
	Units:	ppb (v/v)
Project: DFSP - Norwalk		Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Influent	14-03-1603-4-A	03/21/14 15:24	Air	GC/MS KKK	N/A	03/22/14 22:12	140322L04
Parameter		Result	<u>R</u>	L	DF	Qualif	fiers
Benzene		ND	5.	0	1.00		
Toluene		ND	5.	0	1.00		
Ethylbenzene		ND	5.	0	1.00		
o-Xylene		ND	5.	0	1.00		
p/m-Xylene		ND	10)	1.00		
Methyl-t-Butyl Ether (MTBE)		ND	1()	1.00		
Tert-Butyl Alcohol (TBA)		ND	10)	1.00		
Diisopropyl Ether (DIPE)		ND	10)	1.00		
Ethyl-t-Butyl Ether (ETBE)		ND	10)	1.00		
Tert-Amyl-Methyl Ether (TAME)		ND	10)	1.00		
Ethanol		ND	50)	1.00		
1,1-Difluoroethane		ND	2.	0	1.00		
Isopropanol		ND	5.	0	1.00		
Surrogate		<u>Rec. (%)</u>	<u>C</u>	ontrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		107	47	7-156			
1,2-Dichloroethane-d4		104	47	7-156			
Toluene-d8		98	47	7-156			

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alscience nvironmental aboratories, Inc.

Analytical Report	Ana	lytical	Report
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Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA 8260B (M)
	Units:	ppb (v/v)
Project: DFSP - Norwalk		Page 5 of 5

Project: DFSP - Norwalk

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-116-243	N/A	Air	GC/MS KKK	N/A	03/22/14 15:03	140322L04
Parameter		<u>Result</u>	RI	=	DF	Qua	lifiers
Benzene		ND	5.0	D	1.00		
Toluene		ND	5.0	D	1.00		
Ethylbenzene		ND	5.0	D	1.00		
o-Xylene		ND	5.0	D	1.00		
p/m-Xylene		ND	10)	1.00		
Methyl-t-Butyl Ether (MTBE)		ND	10)	1.00		
Tert-Butyl Alcohol (TBA)		ND	10)	1.00		
Diisopropyl Ether (DIPE)		ND	10)	1.00		
Ethyl-t-Butyl Ether (ETBE)		ND	10)	1.00		
Tert-Amyl-Methyl Ether (TAME)		ND	10)	1.00		
Ethanol		ND	50)	1.00		
1,1-Difluoroethane		ND	2.0	D	1.00		
Isopropanol		ND	5.0	C	1.00		
Surrogate		<u>Rec. (%)</u>	<u>Cc</u>	ontrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		102	47	-156			
1,2-Dichloroethane-d4		102	47	-156			
Toluene-d8		100	47	-156			



Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA TO-15M
	Units:	ppb (v/v)
Project: DFSP - Norwalk		Page 1 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent	14-03-1603-1-A	03/21/14 15:28	Air	GC/MS KKK	N/A	03/22/14 19:28	140322L02
Parameter		Result	Ē	<u>۲L</u>	DF	Qualif	iers
Acetone		ND	5	50	1.00		
Benzyl Chloride		ND	1	.5	1.00		
Bromodichloromethane		ND	C).50	1.00		
Bromoform		ND	C).50	1.00		
Bromomethane		ND	C).50	1.00		
2-Butanone		3.1	1	.5	1.00		
Carbon Disulfide		ND	1	0	1.00		
Carbon Tetrachloride		ND	C	0.50	1.00		
Chlorobenzene		ND	C	0.50	1.00		
Chloroethane		ND	C	0.50	1.00		
Chloroform		ND	C	0.50	1.00		
Chloromethane		0.71	C	0.50	1.00		
Dibromochloromethane		ND	C	0.50	1.00		
Dichlorodifluoromethane		0.56	C	0.50	1.00		
1,1-Dichloroethane		ND	C	0.50	1.00		
1,1-Dichloroethene		ND	C).50	1.00		
1,2-Dibromoethane		ND	C	0.50	1.00		
Dichlorotetrafluoroethane		ND	2	2.0	1.00		
1,2-Dichlorobenzene		ND	C).50	1.00		
1,2-Dichloroethane		ND	C).50	1.00		
1,2-Dichloropropane		ND	C).50	1.00		
1,3-Dichlorobenzene		ND	C).50	1.00		
1,4-Dichlorobenzene		ND	C).50	1.00		
c-1,3-Dichloropropene		ND	C).50	1.00		
c-1,2-Dichloroethene		ND	C).50	1.00		
t-1,2-Dichloroethene		ND	C).50	1.00		
t-1,3-Dichloropropene		ND	1	.0	1.00		
4-Ethyltoluene		ND	C).50	1.00		
Hexachloro-1,3-Butadiene		ND	1	.5	1.00		
2-Hexanone		ND	1	.5	1.00		
Methylene Chloride		ND	5	5.0	1.00		
4-Methyl-2-Pentanone		ND	1	.5	1.00		
Styrene		ND	1	1.5	1.00		
Tetrachloroethene		ND	C).50	1.00		
Trichloroethene		ND	C).50	1.00		

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Calscience nvironmental Laboratories, Inc.

				22/24/44
Parsons Government Services, Inc.	e Received:		03/21/14	
100 West Walnut Street	Wo		14-03-1603	
Pasadena, CA 91124-0002	Pre	paration:		N/A
	Me	thod:		EPA TO-15M
	Uni	ts:		(v/v) daa
Project: DFSP - Norwalk	-			Page 2 of 10
Parameter	<u>Result</u>	<u>RL</u>	DF	Qualifiers
Trichlorofluoromethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
1,2,4-Trimethylbenzene	ND	1.5	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
Vinyl Acetate	ND	2.0	1.00	
Vinyl Chloride	ND	0.50	1.00	
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	102	57-129		
1,2-Dichloroethane-d4	103	47-137		
Toluene-d8	100	78-156		

Analytical Report



Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA TO-15M
	Units:	ppb (v/v)
Project: DFSP - Norwalk		Page 3 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
After GAC-2	14-03-1603-2-A	03/21/14 15:26	Air	GC/MS KKK	N/A	03/22/14 20:18	140322L02
Parameter		Result	<u>R</u>	<u>L</u>	DF	Qua	lifiers
Acetone		ND	50)	1.00		
Benzyl Chloride		ND	1.	5	1.00		
Bromodichloromethane		ND	0.	50	1.00		
Bromoform		ND	0.	50	1.00		
Bromomethane		ND	0.	50	1.00		
2-Butanone		ND	1.	5	1.00		
Carbon Disulfide		ND	1()	1.00		
Carbon Tetrachloride		ND	0.	50	1.00		
Chlorobenzene		ND	0.	50	1.00		
Chloroethane		ND	0.	50	1.00		
Chloroform		ND	0.	50	1.00		
Chloromethane		0.61	0.	50	1.00		
Dibromochloromethane		ND	0.	50	1.00		
Dichlorodifluoromethane		0.52	0.	50	1.00		
1,1-Dichloroethane		ND	0.	50	1.00		
1,1-Dichloroethene		ND	0.	50	1.00		
1,2-Dibromoethane		ND	0.	50	1.00		
Dichlorotetrafluoroethane		ND	2.	0	1.00		
1,2-Dichlorobenzene		ND	0.	50	1.00		
1,2-Dichloroethane		ND	0.	50	1.00		
1,2-Dichloropropane		ND	0.	50	1.00		
1,3-Dichlorobenzene		ND	0.	50	1.00		
1,4-Dichlorobenzene		ND	0.	50	1.00		
c-1,3-Dichloropropene		ND	0.	50	1.00		
c-1,2-Dichloroethene		ND	0.	50	1.00		
t-1,2-Dichloroethene		ND	0.	50	1.00		
t-1,3-Dichloropropene		ND	1.	0	1.00		
4-Ethyltoluene		ND	0.	50	1.00		
Hexachloro-1,3-Butadiene		ND	1.	5	1.00		
2-Hexanone		ND	1.	5	1.00		
Methylene Chloride		ND	5.	0	1.00		
4-Methyl-2-Pentanone		ND	1.	5	1.00		
Styrene		ND	1.	5	1.00		
Tetrachloroethene		ND	0.	50	1.00		
Trichloroethene		ND	0.	50	1.00		

Calscience nvironmental Laboratories, Inc.

Parsons Government Services, Inc. Date Received:				03/21/14	
100 West Walnut Street	Wo	Work Order:			
Pasadena, CA 91124-0002	Pre	paration:		N/A	
	Me	thod:		EPA TO-15M	
	Uni		(v/v) daa		
Project: DFSP - Norwalk	-			Page 4 of 10	
Parameter	<u>Result</u>	<u>RL</u>	DF	Qualifiers	
Trichlorofluoromethane	ND	1.0	1.00		
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	1.00		
1,1,1-Trichloroethane	ND	0.50	1.00		
1,1,2-Trichloroethane	ND	0.50	1.00		
1,3,5-Trimethylbenzene	ND	0.50	1.00		
1,1,2,2-Tetrachloroethane	ND	1.0	1.00		
1,2,4-Trimethylbenzene	ND	1.5	1.00		
1,2,4-Trichlorobenzene	ND	2.0	1.00		
Vinyl Acetate	ND	2.0	1.00		
Vinyl Chloride	ND	0.50	1.00		
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	101	57-129			
1,2-Dichloroethane-d4	104	47-137			
Toluene-d8	102	78-156			

Analytical Report



Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA TO-15M
	Units:	ppb (v/v)
Project: DFSP - Norwalk		Page 5 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
After GAC-1	14-03-1603-3-A	03/21/14 15:24	Air	GC/MS KKK	N/A	03/22/14 21:13	140322L02
Parameter		Result	Ē	<u>RL</u>	DF	Qual	ifiers
Acetone		ND	Ę	50	1.00		
Benzyl Chloride		ND	1	1.5	1.00		
Bromodichloromethane		ND	(0.50	1.00		
Bromoform		ND	(0.50	1.00		
Bromomethane		ND	(0.50	1.00		
2-Butanone		ND	1	1.5	1.00		
Carbon Disulfide		ND	1	10	1.00		
Carbon Tetrachloride		ND	(0.50	1.00		
Chlorobenzene		ND	(0.50	1.00		
Chloroethane		ND	(0.50	1.00		
Chloroform		ND	(0.50	1.00		
Chloromethane		0.82	(0.50	1.00		
Dibromochloromethane		ND	(0.50	1.00		
Dichlorodifluoromethane		0.59	(0.50	1.00		
1,1-Dichloroethane		ND	(0.50	1.00		
1,1-Dichloroethene		ND	(0.50	1.00		
1,2-Dibromoethane		ND	(0.50	1.00		
Dichlorotetrafluoroethane		ND	2	2.0	1.00		
1,2-Dichlorobenzene		ND	(0.50	1.00		
1,2-Dichloroethane		ND	(0.50	1.00		
1,2-Dichloropropane		ND	(0.50	1.00		
1,3-Dichlorobenzene		ND	(0.50	1.00		
1,4-Dichlorobenzene		ND	(0.50	1.00		
c-1,3-Dichloropropene		ND	(0.50	1.00		
c-1,2-Dichloroethene		ND	(0.50	1.00		
t-1,2-Dichloroethene		ND	(0.50	1.00		
t-1,3-Dichloropropene		ND	1	1.0	1.00		
4-Ethyltoluene		ND	(0.50	1.00		
Hexachloro-1,3-Butadiene		ND	1	1.5	1.00		
2-Hexanone		ND	1	1.5	1.00		
Methylene Chloride		ND	Ę	5.0	1.00		
4-Methyl-2-Pentanone		ND	1	1.5	1.00		
Styrene		ND	1	1.5	1.00		
Tetrachloroethene		ND	(0.50	1.00		
Trichloroethene		ND	(0.50	1.00		

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Calscience nvironmental Laboratories, Inc.

Parsons Government Services, Inc. Date Receiv				03/21/14	
100 West Walnut Street	Wo	Work Order:			
Pasadena, CA 91124-0002	Pre	paration:		N/A	
	Me	thod:		EPA TO-15M	
	Uni		ppb (v/v)		
Project: DFSP - Norwalk				Page 6 of 10	
Parameter	<u>Result</u>	<u>RL</u>	DF	Qualifiers	
Trichlorofluoromethane	ND	1.0	1.00		
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	1.00		
1,1,1-Trichloroethane	ND	0.50	1.00		
1,1,2-Trichloroethane	ND	0.50	1.00		
1,3,5-Trimethylbenzene	ND	0.50	1.00		
1,1,2,2-Tetrachloroethane	ND	1.0	1.00		
1,2,4-Trimethylbenzene	ND	1.5	1.00		
1,2,4-Trichlorobenzene	ND	2.0	1.00		
Vinyl Acetate	ND	2.0	1.00		
Vinyl Chloride	ND	0.50	1.00		
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	102	57-129			
1,2-Dichloroethane-d4	104	47-137			
Toluene-d8	99	78-156			

Analytical Report



Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA TO-15M
	Units:	ppb (v/v)
Project: DFSP - Norwalk		Page 7 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Influent	14-03-1603-4-A	03/21/14 15:24	Air	GC/MS KKK	N/A	03/22/14 22:12	140322L02
Parameter		Result	RL	=	DF	Qual	ifiers
Acetone		ND	50		1.00		
Benzyl Chloride		ND	1.5	5	1.00		
Bromodichloromethane		ND	0.5	50	1.00		
Bromoform		ND	0.5	50	1.00		
Bromomethane		ND	0.5	50	1.00		
2-Butanone		2.3	1.5	5	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	0.5	50	1.00		
Chloroethane		ND	0.5	50	1.00		
Chloroform		ND	0.5	50	1.00		
Chloromethane		0.77	0.5	50	1.00		
Dibromochloromethane		ND	0.5	50	1.00		
Dichlorodifluoromethane		0.57	0.5	50	1.00		
1,1-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	0.5	50	1.00		
1,2-Dibromoethane		ND	0.5	50	1.00		
Dichlorotetrafluoroethane		ND	2.0)	1.00		
1,2-Dichlorobenzene		ND	0.5	50	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,2-Dichloropropane		ND	0.5	50	1.00		
1,3-Dichlorobenzene		ND	0.5	50	1.00		
1,4-Dichlorobenzene		ND	0.5	50	1.00		
c-1,3-Dichloropropene		ND	0.5	50	1.00		
c-1,2-Dichloroethene		ND	0.5	50	1.00		
t-1,2-Dichloroethene		ND	0.5	50	1.00		
t-1,3-Dichloropropene		ND	1.0)	1.00		
4-Ethyltoluene		ND	0.5	50	1.00		
Hexachloro-1,3-Butadiene		ND	1.5	5	1.00		
2-Hexanone		ND	1.5	5	1.00		
Methylene Chloride		ND	5.0)	1.00		
4-Methyl-2-Pentanone		ND	1.5	5	1.00		
Styrene		ND	1.5	5	1.00		
Tetrachloroethene		ND	0.5	50	1.00		
Trichloroethene		ND	0.5	50	1.00		

Calscience nvironmental Laboratories, Inc.

Parsons Government Services, Inc.	Date Received:			03/21/14
100 West Walnut Street	Wo	rk Order:		14-03-1603
Pasadena, CA 91124-0002	Pre	paration:		N/A
	Me	thod:		EPA TO-15M
	Uni	ts:		(v/v) daa
Project: DFSP - Norwalk	-			Page 8 of 10
Parameter	<u>Result</u>	<u>RL</u>	DF	Qualifiers
Trichlorofluoromethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
1,2,4-Trimethylbenzene	ND	1.5	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
Vinyl Acetate	ND	2.0	1.00	
Vinyl Chloride	ND	0.50	1.00	
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	107	57-129		
1,2-Dichloroethane-d4	104	47-137		
Toluene-d8	98	78-156		

Analytical Report



Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA TO-15M
	Units:	ppb (v/v)
Project: DFSP - Norwalk		Page 9 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-981-4148	N/A	Air	GC/MS KKK	N/A	03/22/14 15:03	140322L02
Parameter		Result	<u>I</u>	RL	DF	Qual	ifiers
Acetone		ND	Ę	50	1.00		
Benzyl Chloride		ND		1.5	1.00		
Bromodichloromethane		ND	(0.50	1.00		
Bromoform		ND	(0.50	1.00		
Bromomethane		ND	(0.50	1.00		
2-Butanone		ND		1.5	1.00		
Carbon Disulfide		ND		10	1.00		
Carbon Tetrachloride		ND	(0.50	1.00		
Chlorobenzene		ND	(0.50	1.00		
Chloroethane		ND	(0.50	1.00		
Chloroform		ND	(0.50	1.00		
Chloromethane		ND	(0.50	1.00		
Dibromochloromethane		ND	(0.50	1.00		
Dichlorodifluoromethane		ND	(0.50	1.00		
1,1-Dichloroethane		ND	(0.50	1.00		
1,1-Dichloroethene		ND	(0.50	1.00		
1,2-Dibromoethane		ND	(0.50	1.00		
Dichlorotetrafluoroethane		ND	2	2.0	1.00		
1,2-Dichlorobenzene		ND	(0.50	1.00		
1,2-Dichloroethane		ND	(0.50	1.00		
1,2-Dichloropropane		ND	(0.50	1.00		
1,3-Dichlorobenzene		ND	(0.50	1.00		
1,4-Dichlorobenzene		ND	(0.50	1.00		
c-1,3-Dichloropropene		ND	(0.50	1.00		
c-1,2-Dichloroethene		ND	(0.50	1.00		
t-1,2-Dichloroethene		ND	(0.50	1.00		
t-1,3-Dichloropropene		ND		1.0	1.00		
4-Ethyltoluene		ND	(0.50	1.00		
Hexachloro-1,3-Butadiene		ND		1.5	1.00		
2-Hexanone		ND		1.5	1.00		
Methylene Chloride		ND	ţ	5.0	1.00		
4-Methyl-2-Pentanone		ND		1.5	1.00		
Styrene		ND		1.5	1.00		
Tetrachloroethene		ND	(0.50	1.00		
Trichloroethene		ND	(0.50	1.00		

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Calscience nvironmental Laboratories, Inc.

Parsons Government Services, Inc.	Date Received:			03/21/14
100 West Walnut Street	Wo	rk Order:		14-03-1603
Pasadena, CA 91124-0002	Pre	paration:		N/A
	Method:			EPA TO-15M
	Uni	ts:		(v/v) daa
Project: DFSP - Norwalk	-			Page 10 of 10
Parameter	<u>Result</u>	<u>RL</u>	DF	Qualifiers
Trichlorofluoromethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
1,2,4-Trimethylbenzene	ND	1.5	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
Vinyl Acetate	ND	2.0	1.00	
Vinyl Chloride	ND	0.50	1.00	
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	102	57-129		
1,2-Dichloroethane-d4	102	47-137		
Toluene-d8	100	78-156		

Analytical Report

Parsons Government Services, Inc.			Date Re	ceived:			03/21/14
100 West Walnut Street			Work Or	der:			14-03-1603
Pasadena, CA 91124-0002			Preparat	tion:			N/A
			Method:				EPA TO-3M
			Units:				ppm (v/v)
Project: DFSP - Norwalk						Pa	age 1 of 1
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrur	nent Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent	14-03-1603-1-A	03/21/14 15:28	Air	GC 13	N/A	03/22/14 10:43	140322L01
Parameter		Result		<u>RL</u>	DF	Qua	alifiers
VOCs >/= C3 As Hexane		ND		3.0	1.00		
After GAC-2	14-03-1603-2-A	03/21/14 15:26	Air	GC 13	N/A	03/22/14 10:52	140322L01
Parameter		Result		<u>RL</u>	DE	<u>Qualifiers</u>	
VOCs >/= C3 As Hexane		ND		3.0	1.00		
After GAC-1	14-03-1603-3-A	03/21/14 15:24	Air	GC 13	N/A	03/22/14 11:01	140322L01
Parameter		<u>Result</u>		<u>RL</u>	DF	Qua	alifiers
VOCs >/= C3 As Hexane		ND		3.0	1.00		
Influent	14-03-1603-4-A	03/21/14 15:24	Air	GC 13	N/A	03/22/14 11:16	140322L01
Parameter		Result		<u>RL</u>	DE	Qua	alifiers
VOCs >/= C3 As Hexane		ND		3.0	1.00		
Method Blank	099-12-713-1909	N/A	Air	GC 13	N/A	03/22/14 09:39	140322L01
Parameter		<u>Result</u>		<u>RL</u>	DF	Qua	alifiers
VOCs >/= C3 As Hexane		ND		3.0	1.00		

Analytical Report



Quality Control - Sample Duplicate

Parsons Government Servi	ces, Inc.		Date Received	:		03/21/14
100 West Walnut Street			Work Order:			14-03-1603
Pasadena, CA 91124-0002			Preparation:			N/A
			Method:			EPA TO-3M
Project: DFSP - Norwalk						Page 1 of 1
Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-03-1620-1	Sample	Air	GC 13	N/A	03/22/14 13:49	140322D01
14-03-1620-1	Sample Duplicate	Air	GC 13	N/A	03/22/14 13:58	140322D01
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers

250.7

1

0-20

248.0

Parameter VOCs >/= C3 As Hexane

Return to Contents

Quality Control - LCS/LCSD

alscience aboratories, Inc.

Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA 8260B (M)
Project: DFSP - Norwalk		Page 1 of 4

Project: DFSP - Norwalk

Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepa	red D	Date Analyzed	LCS/LCSD Ba	tch Number
099-16-116-243	LCS		Air		GC/MS KKK	N/A	0	3/22/14 12:30	140322L04	
099-16-116-243	LCSD		Air		GC/MS KKK	N/A	0	3/22/14 13:20	140322L04	
Parameter	<u>Spike</u> Added	<u>LCS</u> Conc.	<u>LCS</u> %Rec.	LCSD Conc.	<u>LCSD</u> <u>%Rec.</u>	<u>%Rec. CL</u>	<u>ME (</u>	<u>CL RPD</u>	RPD CL	<u>Qualifiers</u>
Benzene	25.00	25.57	102	25.38	102	60-156	44-1	72 1	0-40	
Toluene	25.00	24.68	99	24.62	98	56-146	41-10	61 0	0-43	
Ethylbenzene	25.00	24.25	97	24.16	97	52-154	35-1	71 0	0-38	
o-Xylene	25.00	23.85	95	23.63	95	52-148	36-1	64 1	0-38	
p/m-Xylene	50.00	49.14	98	48.71	97	42-156	23-1	75 1	0-41	
Methyl-t-Butyl Ether (MTBE)	25.00	25.65	103	25.40	102	45-147	28-10	64 1	0-25	
Tert-Butyl Alcohol (TBA)	50.00	47.77	96	46.34	93	60-140	47-1	53 3	0-35	
Diisopropyl Ether (DIPE)	25.00	24.41	98	23.73	95	60-140	47-1	53 3	0-35	
Ethyl-t-Butyl Ether (ETBE)	25.00	24.15	97	23.81	95	60-140	47-1	53 1	0-35	
Tert-Amyl-Methyl Ether (TAME)	25.00	23.44	94	23.25	93	60-140	47-1	53 1	0-35	
Ethanol	100.0	79.58	80	78.77	79	47-137	32-1	52 1	0-35	
1,1-Difluoroethane	25.00	25.97	104	25.65	103	78-156	65-1	69 1	0-35	
Isopropanol	25.00	27.50	110	26.86	107	78-156	65-1	69 2	0-35	

Total number of LCS compounds: 13

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

alscience nvironmental aboratories, Inc.

Quality Control - LCS/LCSD

Parsons Government Services, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Project: DFSP - Norwalk

03/21/14
14-03-1603
N/A
EPA TO-15M
Page 2 of 4

Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepa	red Dat	e Analyzed	LCS/LCSD Ba	atch Number
099-12-981-4148	LCS		Air		GC/MS KKK	N/A	03/2	22/14 12:30	140322L02	
099-12-981-4148	LCSD		Air		GC/MS KKK	N/A	03/2	22/14 13:20	140322L02	
Parameter	<u>Spike</u> Added	<u>LCS</u> Conc.	LCS %Rec.	LCSD Conc.	<u>LCSD</u> %Rec.	<u>%Rec. CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Acetone	25.00	29.10	116	28.66	115	50-150	33-167	2	0-35	
Benzyl Chloride	25.00	26.17	105	25.84	103	50-150	33-167	1	0-35	
Bromodichloromethane	25.00	26.42	106	26.16	105	50-150	33-167	1	0-35	
Bromoform	25.00	26.00	104	25.95	104	50-150	33-167	0	0-38	
Bromomethane	25.00	26.45	106	26.30	105	50-150	33-167	1	0-35	
2-Butanone	25.00	26.90	108	26.39	106	50-150	33-167	2	0-35	
Carbon Disulfide	25.00	26.99	108	26.39	106	50-150	33-167	2	0-35	
Carbon Tetrachloride	25.00	25.77	103	25.72	103	64-154	49-169	0	0-32	
Chlorobenzene	25.00	24.08	96	24.05	96	50-150	33-167	0	0-35	
Chloroethane	25.00	24.30	97	23.99	96	50-150	33-167	1	0-35	
Chloroform	25.00	25.64	103	25.43	102	50-150	33-167	1	0-35	
Chloromethane	25.00	28.65	115	31.58	126	50-150	33-167	10	0-35	
Dibromochloromethane	25.00	25.03	100	25.10	100	50-150	33-167	0	0-35	
Dichlorodifluoromethane	25.00	24.98	100	24.87	99	50-150	33-167	0	0-35	
1,1-Dichloroethane	25.00	25.83	103	25.60	102	50-150	33-167	1	0-35	
1,1-Dichloroethene	25.00	26.88	108	26.64	107	50-150	33-167	1	0-35	
1,2-Dibromoethane	25.00	24.62	98	24.53	98	54-144	39-159	0	0-36	
Dichlorotetrafluoroethane	25.00	20.97	84	23.49	94	50-150	33-167	11	0-35	
1,2-Dichlorobenzene	25.00	23.30	93	23.33	93	34-160	13-181	0	0-47	
1,2-Dichloroethane	25.00	25.74	103	25.46	102	69-153	55-167	1	0-35	
1,2-Dichloropropane	25.00	25.78	103	25.54	102	67-157	52-172	1	0-35	
1,3-Dichlorobenzene	25.00	23.68	95	23.61	94	50-150	33-167	0	0-35	
1,4-Dichlorobenzene	25.00	23.58	94	23.47	94	36-156	16-176	0	0-47	
c-1,3-Dichloropropene	25.00	26.33	105	25.99	104	61-157	45-173	1	0-35	
c-1,2-Dichloroethene	25.00	25.48	102	25.34	101	50-150	33-167	1	0-35	
t-1,2-Dichloroethene	25.00	24.71	99	24.51	98	50-150	33-167	1	0-35	
t-1,3-Dichloropropene	25.00	28.67	115	28.37	113	50-150	33-167	1	0-35	
4-Ethyltoluene	25.00	24.27	97	24.22	97	50-150	33-167	0	0-35	
Hexachloro-1,3-Butadiene	25.00	25.92	104	25.75	103	50-150	33-167	1	0-35	
2-Hexanone	25.00	25.27	101	25.00	100	50-150	33-167	1	0-35	
Methylene Chloride	25.00	25.66	103	25.12	100	50-150	33-167	2	0-35	
4-Methyl-2-Pentanone	25.00	26.11	104	25.65	103	50-150	33-167	2	0-35	
Styrene	25.00	23.08	92	22.94	92	50-150	33-167	1	0-35	
Tetrachloroethene	25.00	24.36	97	24.55	98	56-152	40-168	1	0-40	
Trichloroethene	25.00	25.37	101	25.15	101	63-159	47-175	1	0-34	
Trichlorofluoromethane	25.00	26.42	106	26.24	105	50-150	33-167	1	0-35	

Quality Control - LCS/LCSD

	<i>s, mc</i> .									
Parsons Government Se	rvices, Inc.			Da	ate Receiv	/ed:				03/21/14
100 West Walnut Street				W	ork Order	:			1	4-03-1603
Pasadena, CA 91124-00	02			Pr	eparation	:				N/A
,				M	ethod:				EP	A TO-15M
Project: DFSP - Norwalk									Page	3 of 4
Parameter	<u>Spike</u> Added	<u>LCS</u> Conc.	<u>LCS</u> <u>%Rec.</u>	LCSD Conc.	<u>LCSD</u> <u>%Rec.</u>	<u>%Rec. CL</u>	ME CL	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
1,1,2-Trichloro-1,2,2- Trifluoroethane	25.00	27.25	109	27.15	109	50-150	33-167	0	0-35	
1,1,1-Trichloroethane	25.00	24.68	99	24.56	98	50-150	33-167	0	0-35	
1,1,2-Trichloroethane	25.00	25.69	103	25.35	101	65-149	51-163	1	0-37	
1,3,5-Trimethylbenzene	25.00	23.67	95	23.61	94	50-150	33-167	0	0-35	
1,1,2,2-Tetrachloroethane	25.00	23.96	96	23.71	95	50-150	33-167	1	0-35	
1,2,4-Trimethylbenzene	25.00	24.59	98	24.57	98	50-150	33-167	0	0-35	
1,2,4-Trichlorobenzene	25.00	23.42	94	23.32	93	50-150	33-167	0	0-35	
Vinvl Acetate	25.00	24.21	97	23.76	95	50-150	33-167	2	0-35	

28.85

115

45-177

23-199

10

0-36

Total number of LCS compounds: 45 Total number of ME compounds: 0 Total number of ME compounds allowed: 2 LCS ME CL validation result: Pass

25.00

26.13

105

Vinyl Chloride



<i>Calscience</i> <i>nvironmental</i> <i>Laboratories, Inc.</i>	Quality Control - LCS	
Parsons Government Services, Inc.	Date Received:	03/21/14
100 West Walnut Street	Work Order:	14-03-1603
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	EPA TO-3M
Project: DFSP - Norwalk		Page 4 of 4
Quality Control Sample ID Type	Matrix Instrument Date Prenared Date	e Analyzed I CS Batch Number

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed LCS E	Batch Number
099-12-713-1909	LCS	Air	GC 13	N/A	03/22/14 09:29 14032	22L01
Parameter		Spike Added	Conc. Recove	red LCS %Red	<u>%Rec. CL</u>	<u>Qualifiers</u>
VOCs >/= C3 As Hexane		400.0	405.9	101	80-120	

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Work Order: 14-03-1603

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8260B (M)	N/A	858	GC/MS KKK	2
EPA TO-15M	N/A	858	GC/MS KKK	2
EPA TO-3M	N/A	884	GC 13	2
EPA TO-3M	N/A	888	GC 13	2

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Page 1 of 1

alscience nvironmental aboratories, Inc.

Work Order: 14-03-1603

ork Order:	14-03-1603	Page 1 of 1
Qualifiers	Definition	
*	See applicable analysis comment.	
<	Less than the indicated value.	
>	Greater than the indicated value.	
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data v clarification.	was reported without further
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surro in control and, therefore, the sample data was reported without further clarification.	gate spike compound was
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspect associated LCS recovery was in control.	ed matrix interference. The
4	The MS/MSD RPD was out of control due to suspected matrix interference.	
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix	interference.
6	Surrogate recovery below the acceptance limit.	
7	Surrogate recovery above the acceptance limit.	
В	Analyte was present in the associated method blank.	
BU	Sample analyzed after holding time expired.	
BV	Sample received after holding time expired.	
Е	Concentration exceeds the calibration range.	
ET	Sample was extracted past end of recommended max. holding time.	
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.	
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but were also present (or detected).	heavier hydrocarbons
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but also present (or detected).	lighter hydrocarbons were
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limi estimated.	t. Reported value is
JA	Analyte positively identified but quantitation is an estimate.	
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).	
ND	Parameter not detected at the indicated reporting limit.	
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exc concentration by a factor of four or greater.	eeding the spike
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.	
Х	% Recovery and/or RPD out-of-range.	

Glossary of Terms and Qualifiers

Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

> Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

> Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

	Calscience Env	/ironme	ental La	abora	ato	ries	s, In	1C.						-		aword .	(СНА	١N	OF	CU	ST	DY	' RE	COI	RD
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	For couri	er service / sam tot <u>sales@calsc</u>	nple drop off in <u>sience.com</u> or o	formatior call us.), 					14	-0	3 .	-16	60	3		^p age_				<u> </u>	<u>f_1</u>	****	****		
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/ E	ffluent	3-21-14	1528	Air	1	Į	ļ	ļ	ļ	ļ													X	X		
2 A	fter GAC-2		1526		1																		X	×		
3 A	fter GAC-1		1524		1																		X	X		
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Relinquis	shed by: (Signature)	2442444442845645865855555555555555555555			R	eceive	d by: (Signat	ure/A	ffiliatio	n)			CTICAL CALCULAR CALLON TALLAS	-		80.500 Marcalan		Date		14		Tim	<u>/ 7</u> e:		2
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DISTRIBUTION: White with final report, Green and Yellow to Client. Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

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Laiscience ·	W	ORK ORDER #	÷ 14-()3-[]	6 0
Laboratories, Inc.					- .
	SAMPLE REC	EIPTFOR	Ш с	ooler	_ of _/_
LIENT: <u>PARSON</u>			DATE:	03/2	/14
TEMPERATURE: Thermometer	er ID: SC1 (Criteria: 0.0 °C	c – 6.0 °C, not frozen	except se	diment/tissu	re)
Temperature 2.6°	C - 0.3 °C (CF) =	Z•3°C 2	Blank	□ Sampl	le
Sample(s) outside temperatu	re criteria (PM/APM contac	ted by:)			
Sample(s) outside temperatur	e criteria but received on i	ce/chilled on same da	y of sampli	ng.	
Received at ambient tempe	rature, placed on ice fo	or transport by Cou	irier.		
Ambient Temperature: Air	□ Filter			Checked b	ov: 821
					- , . <u></u>
CUSTODY SEALS INTACT:		/		n dag Tanan Tanan	
Cooler	_ □ No (Not Intact)	D Not Present	□ N/A	Checked b	ру: <u>«И</u>
□ Sample □	_ □ No (Not Intact)	☑ Not Present		Checked b	oy: <u>310</u>
		×	(<u>~</u> _	No	NI/A
Chain Of Custody (COC) docum	ent(s) received with san	nnles -	es		
COC document(s) received com	nlete				
□ Collection date/time, matrix, and/	or # of containers logged in ba	used on sample labels.			
□ No analysis requested. □ Not	relinquished.	me relinquished.			
Sampler's name indicated on CO	DC				
Sample container label(s) consis	stent with COC				
Sample container(s) intact and g	jood condition				
Proper containers and sufficient	volume for analyses req	uested			
Analyses received within holding	g time	······································	Ð		
Aqueous samples received w	ithin 15-minute holding	time			_
D pH D Residual Chlorine	Dissolved Sulfides 🛛 Disso	olved Oxygen			
Proper preservation noted on CO	OC or sample container.				Ľ
□ Unpreserved vials received for	r Volatiles analysis				
Volatile analysis container(s) fre	e of headspace				Ø
Tedlar bag(s) free of condensati CONTAINER TYPE:	on				
Solid: 40zCGJ 80zCGJ	□16ozCGJ □Sleeve (_) □EnCores [®]	[®] □Terra	$Cores^{\otimes} \Box_{_}$	
Aqueous: VOA VOAh VO	DA na₂ □125AGB □125/	AGBh □125AGBp [□1AGB □]1AGB na₂	□1AGB s
□500AGB □500AGJ □500AG	GJ s □250AGB □250	CGB □250CGB s	□1PB [1PBna	3500PB
□250PB □250PBn □125PB	□125PB znna □100PJ	□100PJ na₂ □			
Air: DTedlar [®] Canister Othe Container: C: Clear A: Amber P: Plastic C Preservative: h: HCL n: HNO ₃ na ₂ :Na ₂ S ₂ O ₃	r: □ Trip Blanl 5: Glass J: Jar B: Bottle Z: Ziplo na: NaOH p: H₃PO4 s: H₂SO4 u: U	k Lot#: c/Resealable Bag E: Enve Jitra-pure znna: ZnAc ₂ +NaO	Labeled/ elope R H f: Filtered	Checked by eviewed by Scanned by	1: 300 : 836 y: 380

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WORK ORDER NUMBER: 14-02-0466

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For Client: Parsons Government Services, Inc. Client Project Name: DFSP - Norwalk Attention: Mary Lucas 100 West Walnut Street Pasadena, CA 91124-0002

allov-2 For

Approved for release on 02/13/2014 by: Ranjit Clarke Project Manager

ResultLink ▶

Email your PM >



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Client Project Name: DFSP - Norwalk Work Order Number: 14-02-0466

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Work Order: 14-02-0466

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 02/07/14. They were assigned to Work Order 14-02-0466.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Parsons Government Services, Inc.			Date Rec	eived:			02/07/14
100 West Walnut Street		,	Work Ord	er:			14-02-0466
Pasadena, CA 91124-0002			Preparatio	on:			EPA 3510C
			Method:			E	PA 8015B (M)
			Units:				ua/L
Project: DFSP - Norwalk						Pa	ge 1 of 1
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
After MX-21	14-02-0466-1-D	02/07/14 09:17	Aqueou	s GC 48	02/11/14	02/12/14 02:56	140211B05
Parameter		Result	Ē	RL	DF	Qua	lifiers
TPH as Diesel		1500	1	00	1	HD	
Surrogate		<u>Rec. (%)</u>	<u>(</u>		Qualifiers		
n-Octacosane		123	Ċ	8-140			
Parameter		Result	<u>F</u>	<u>RL</u>	DF	Qua	lifiers
TPH as Diesel		2500	1	00	1	HD	
Curre state				Deveteel Lineite	Qualifiana		
<u>Sunogate</u>		<u>Rec. (%)</u> 124	<u>(</u>		Quaimers		
II-Octacosane		124	(08-140			
Parameter		Result	<u> </u>	<u>۲L</u>	DE	Qua	lifiers
TPH as Diesel		1500	1	00	1	HD	
Surrogate		<u>Rec. (%)</u>	<u>(</u>	Control Limits	<u>Qualifiers</u>		
n-Octacosane		109	6	58-140			
Parameter		<u>Result</u>	E	<u> </u>	DF	Qua	lifiers
TPH as Diesel		ND	1	00	1		
Surrogate		Rec (%)	ſ	Control Limits	Qualifiers		
n-Octacosane		92	<u>-</u>	68-140	<u>Quanters</u>		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Parsons Government Services, Inc.			Date Rec	eived:			02/07/14
100 West Walnut Street		,	Work Ord	er:			14-02-0466
Pasadena. CA 91124-0002			Preparatio	on:			EPA 5030C
			Method:			E	PA 8015B (M)
			Units:				ug/L
Project: DFSP - Norwalk						Pa	age 1 of 1
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
After MX-21	14-02-0466-1-A	02/07/14 09:17	Aqueous	GC 4	02/07/14	02/07/14 20:52	140207B02
Parameter		Result	Ē	<u>RL</u>	DF	Qua	alifiers
TPH as Gasoline		2100	1	00	1		
Surrogate		<u>Rec. (%)</u>	<u>(</u>	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		88	3	38-134			
Parameter		Result	Ē	<u>RL</u>	DF	Qua	alifiers
TPH as Gasoline		2300	1	00	1		
Surrogate		<u>Rec. (%)</u>	<u>(</u>	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		92	3	88-134			
Parameter		Result	<u>F</u>	<u>RL</u>	DF	Qua	alifiers
TPH as Gasoline		2300	1	00	1		
Surrogate		<u>Rec. (%)</u>	<u>(</u>	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		92	3	88-134			
Parameter		Result	Ē	<u>RL</u>	DF	Qua	alifiers
TPH as Gasoline		ND	1	00	1		
Surrogate		<u>Rec. (%)</u>	<u>(</u>	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		70	3	8-134			

0-18

2



TPH as Gasoline

2098

2000

4016

Quality Control - Spike/Spike Duplicate

Parsons Government Service	es, Inc.			Date	Received:				02/07/14
100 West Walnut Street				Work	Order:			14	4-02-0466
Pasadena, CA 91124-0002				Prepa	aration:			E	PA 5030C
				Meth	od:			EPA 8	3015B (M)
Project: DFSP - Norwalk								Page 1	of 1
Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Analyzed	MS/MSD Ba	tch Number
Quality Control Sample ID After MX-21	Type Sample		Matrix Aqueous	lns G(strument C 4	Date Prepared	Date Analyzed 02/07/14 20:52	MS/MSD Ba	tch Number
Quality Control Sample ID After MX-21 After MX-21	Type Sample Matrix Spike		Matrix Aqueous Aqueous	lns G(G(strument C 4 C 4	Date Prepared 02/07/14 02/07/14	Date Analyzed 02/07/14 20:52 02/07/14 21:25	MS/MSD Ba 140207S02 140207S02	tch Number
Quality Control Sample ID After MX-21 After MX-21 After MX-21	Type Sample Matrix Spike Matrix Spike	Duplicate	Matrix Aqueous Aqueous Aqueous	Ins GC GC GC	strument C 4 C 4 C 4	Date Prepared 02/07/14 02/07/14 02/07/14	Date Analyzed 02/07/14 20:52 02/07/14 21:25 02/07/14 21:57	MS/MSD Ba 140207S02 140207S02 140207S02	tch Number

96

3956

93

68-122
Quality Control - LCS/LCSD

Parsons Government Service	es, Inc.		Date Receiv	ved:		02/07/14
100 West Walnut Street			Work Order:			14-02-0466
Pasadena, CA 91124-0002			Preparation:			EPA 3510C
			Method:			EPA 8015B (M)
Project: DFSP - Norwalk						Page 1 of 2
Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number

099-15-282-167	LCS		Aqueous	GC 48	02/11/14	4 02	/12/14 01:53	140211B05	
099-15-282-167	LCSD		Aqueous	GC 48	02/11/14	4 02	/12/14 02:09	140211B05	
Parameter	<u>Spike</u> Added	<u>LCS</u> Conc.	<u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	<u>Qualifiers</u>
TPH as Diesel	4000	3614	90	3749	94	75-117	4	0-13	

RPD: Relative Percent Difference. CL: Control Limits

<i>E alscience</i> <i>nvironmental</i> <i>aboratories, Inc.</i>	Quality Control - LCS	
Parsons Government Services, Inc.	Date Received:	02/07/14
100 West Walnut Street	Work Order:	14-02-0466
Pasadena, CA 91124-0002	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: DFSP - Norwalk		Page 2 of 2

Quality Control Sample ID	Гуре	Matrix	Instrument	Date Prepared	Date Analyzed LCS Bate	ch Number
099-15-704-652	LCS	Aqueous	GC 4	02/07/14	02/07/14 19:14 140207E	302
Parameter		Spike Added	Conc. Recover	red LCS %Rec	<u>. %Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		2000	1845	92	78-120	

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Page 1 of 1



Sample Analysis Summary Report

Work Order: 14-02-0466

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8015B (M)	EPA 3510C	847	GC 48	1
EPA 8015B (M)	EPA 5030C	834	GC 4	2

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alscience nvironmental aboratories, Inc.

Work Order: 14-02-0466

Page 1 of 1 Qualifiers Definition * See applicable analysis comment. Less than the indicated value. < Greater than the indicated value. > Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further 1 clarification. 2 Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. 3 Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control. Δ The MS/MSD RPD was out of control due to suspected matrix interference. The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference. 5 6 Surrogate recovery below the acceptance limit. 7 Surrogate recovery above the acceptance limit. В Analyte was present in the associated method blank. ΒU Sample analyzed after holding time expired. ΒV Sample received after holding time expired. Е Concentration exceeds the calibration range. FT Sample was extracted past end of recommended max. holding time. HD The chromatographic pattern was inconsistent with the profile of the reference fuel standard.

Glossary of Terms and Qualifiers

HDH The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).

HDL The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).

Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is J estimated.

JA Analyte positively identified but quantitation is an estimate.

LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean). ME

ND Parameter not detected at the indicated reporting limit.

Q Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.

SG The sample extract was subjected to Silica Gel treatment prior to analysis.

Х % Recovery and/or RPD out-of-range.

Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

> Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

> Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

> A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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2	Alter NAV. 7	<u> </u>	0920	4.0	4	1	2		×	X																
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DISTRIBUTION: White with final report, Green and Yellow to Client. Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

				Page 1	2 of 12
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Laboratories, Inc.					
SAM	IPLE REC	EIPT FOR	C C	ooler 🦯	of
CLIENT: PARSON'S			DATE:	02/7/	/ 14
TEMPERATURE: Thermometer ID: S	C1 (Criteria: 0.0 °C	– 6.0 °C, not frozen	except sec	liment/tissue	e)
Temperature°C - 0.3	B°C (CF) =	<u>2.4</u> ℃ Æ	Blank	□ Sample	ļ.
□ Sample(s) outside temperature criter	ia (PM/APM contac	ted by:)			
☐ Sample(s) outside temperature criter	ia but received on i	ce/chilled on same da	ay of samplir	ng.	
□ Received at ambient temperature.	placed on ice fo	r transport by Co	urier.		
Ambient Temperature:	Filter			Checked by	, 678
CUSTODY SEALS INTACT:					
□ Cooler □ □	No (Not Intact)	Not Present	□ N/A	Checked by	.678
□ Sample □ □	No (Not Intact)	Ø Not Present		Checked by	:802
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SAMPLE CONDITION:		Ň	Yes	No	N/A
Chain-Of-Custody (COC) document(s)	received with san	nples			
COC document(s) received complete			Ø		
□ Collection date/time, matrix, and/or # of co	ontainers logged in ba	ised on sample labels.			
□ No analysis requested. □ Not relinquis	shed. 🗆 No date/ti	me relinquisned.	-7	m	
Sampler's name indicated on COC		· · · · · · · · · · · · · · · · · · ·	Ч И		
Sample container label(s) consistent w			р d		
Sample container(s) intact and good co		waatad			
Proper containers and sufficient volume	e for analyses req	uested	Д		
Analyses received within holding time.			<u>у</u>		
Aqueous samples received within 1	5-minute holding	lime			-
□ pH □ Residual Chlorine □ Dissolve	ed Sulfides LI Disso	lved Oxygen			
Proper preservation noted on COC or s	sample container.				
Volatile analysis container(s) free of he				П	
Tedlar had(s) free of condensation		•••••••	П		
CONTAINER TYPE:					, <u> </u>
Solid: □4ozCGJ □8ozCGJ □16oz	CGJ □Sleeve () □EnCores	s® ⊡Terra0	Cores [®] □	
Aqueous: □VOA ☑ ♥OAh □VOAna₂	□125AGB □125/	AGB h □125AGB p	□1AGB □	l1AGB na₂ ⊑]1AGB s
□500AGB Ø500AGJ □500AGJs □]250AGB □250	CGB □250CGBs]1PB na □	500PB
□250PB □250PBn □125PB □125F	PB znna □100PJ	□100PJ na ₂ □		□	
Air: □Tedlar [®] □Canister Other: □ Container: C: Clear A: Amber P: Plastic G: Glass 、 Preservative: h: HCL n: HNO ₃ na ₂ :Na ₂ S ₂ O ₃ na: NaO	Trip Blanl J: Jar B: Bottle Z: Ziplo H p: H ₃ PO4 s: H ₂ SO4 u: U U	c Lot#: c/Resealable Bag E: Env Jltra-pure znna : ZnAc ₂ +NaC	_ Labeled/ velope R DH f: Filtered	Checked by: eviewed by: Scanned by:	862 802 802

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