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August 15, 2013

Information Technology Unit California Regional Water Quality Control Board, Los Angeles Region 320 W. 4<sup>th</sup> Street, Suite 200 Los Angeles, California 90013

# Subject: Second Quarter 2013 Groundwater Discharge Monitoring Report NPDES No. CAG994004; Compliance File No. CI-7585 DFSP Norwalk Facility, 15306 Norwalk Boulevard, Norwalk, California

In compliance with the subject NPDES Permit, Parsons is submitting this quarterly Discharge Monitoring Report (DMR) on behalf of the Defense Logistics Agency (DLA) Energy for the subject reporting period. The system is installed at the Defense Fuel Support Point Norwalk, at 15306 Norwalk Boulevard, Norwalk, California. This report describes NPDES monitoring activities during the period of April 1 through June 30, 2013.

# SUMMARY OF REMEDIATION PROGRESS AND DISCHARGE VOLUMES

Parsons, on behalf of DLA Energy currently operates remediation systems consisting of soil vapor extraction (SVE), groundwater extraction (GWE), and treatment of extracted soil vapors and groundwater to address the entire former tank farm, the former water tank, former truck fueling, and pump house areas.

The GWE systems consists of five vertical extraction wells of which four are 6-inch diameter wells and one is a 4-inch; three bag filter vessels; two MYCELX vessels; two ion exchange vessels; and three granular activated carbon (GAC) vessels. Four wells; GW-2, GW-13, GW-15, and GW-16; were in operation during this reporting period. The treated groundwater is discharged in accordance with the NPDES permit No. CAG994004, CI No. 7585. Overall, the GWE system operated 32.5 percent of the time for the reporting period

and taking into account the planned shutdowns, the GWE system operated 43.2 percent of the time during the second quarter 2013.

The GWE system discharge volumes and field notes are summarized in Table 1. Periodic site visits were conducted to assess and optimize system operation and record operational data. During the second quarter 2013; 673,397 gallons of groundwater were processed and discharged. Total hydrocarbons removed via groundwater treatment during the subject reporting period is 0.0036 gallons (0.0255 pounds). Other than discharge of treated groundwater to the permitted NPDES outfall, no groundwater was managed off-site as an investigation-derived waste.

There were no changes in the operation of the facility that have or would change the character, location, or volume of the groundwater discharge. A summary of the operational periods with dates and groundwater volumes processed is provided in Table 1.

# **OPERATION, MAINTENANCE, AND MONITORING**

Tasks performed for OM&M of the GWE and SVE remediation systems during the reporting period included:

- Weekly maintenance and monitoring of the GWE wells and treatment systems;
- Collecting and analyzing system influent vapor and groundwater samples;
- Changing out MYCELX (MX-7) and bag filters (No. 1, 2, and 3); and
- Groundwater compliance samples from the GWE system were collected on April 15, 22, and 29; June 11 and 26;
- Vapor compliance samples from SVE system were collected on April 22;
- Comprehensive characterization of current groundwater influent including detailed analysis of throughput capacity;
- Installation of a second bed (15 cubic feet capacity) of arsenic ion removal resin;
- GAC in the GWE system was replaced with acid-washed coal-based carbon (formerly GAC used was regenerated virgin coconut carbon). Selection of this alternative carbon source is intended to marginally lower pH in the groundwater process stream increasing effectiveness of the arsenic ion exchange resin.

In addition, system vapor and effluent water samples were collected and analyzed for compliance with the SCAQMD and NPDES permits. Results for the NPDES effluent

monitoring will be provided in a subsequent section.

Remediation system inspections were performed on a weekly basis. The GWE and SVE systems operated during the second quarter with the following exceptions:

- GWE system was off from:
  - February 14 through April 11 due to high arsenic results reported by laboratory. A comprehensive characterization of current influent composition was performed. Based on results of the characterization, a detailed analysis of throughput capacity was completed and selective ion resin options were re-evaluated. Elevated interfering elements and an increase in pH in the influent were found to be responsible for the reduced efficiency of the arsenic ion exchange resin.
  - May 1 through June 3 due to high arsenic results reported by the laboratory. Resin efficiency has been further reduced. A second ion exchange vessel was installed.
  - > June 3 through June 10 pending activated carbon change out.
  - June 18 through June 26 to assess surge tank level sensor failure and make repairs.
- SVE system was off from:
  - SVE shut down May 15 due to a ruptured hose between GAC-2 and GAC-3. SVE remained off for the remainder for the duration of the reporting period.

As a result of the GWE system arsenic discharge permit exceedance, a comprehensive evaluation of changes in influent characterization was completed to assess reasons for reduced efficiency of the ion exchange resin. It was determined the appropriate resin is in use; however, increases in pH and competing ions, since initial resin selection in 2009, are diminishing the capacity of the resin for arsenic removal. A second arsenic resin vessel was installed on June 3 to further protect against the possibility of exceeding the permit limits and maintain permit compliance. Field testing is in use at increased intervals to evaluate process efficiency and detect early break-through. Routine sampling of GWE discharge will continue at intervals as required by permit.

# SUMMARY OF COMPLIANCE RESULTS

Representative samples of treated groundwater were collected from the system effluent and analyzed for compounds as required by the Monitoring and Reporting Program (MRP).

The sample dates and summary of test results are provided in Table 2. A complete set of laboratory reports are provided in Attachment B. Representative sample results indicate concentrations were below detection limits or did not exceed permit required discharge levels with the exception of arsenic. Arsenic was reportedly detected in the effluent sample collected on April 29 (0.0239 mg/L). Mr. Gensen Kai of RWQCB was notified by telephone on May 1, 2013 of the arsenic discharge exceedance in the effluent samples. A Groundwater Discharge Monitoring Exceedance Report was submitted to Gensen Kai on May 20 detailing actions planned to correct the cause of high arsenic in the representative sample of the GWE treatment system discharge. Field test kits were procured and will be used to assist with early detection of arsenic break-through and understanding process efficiency of the arsenic exchange resin.

Following installation of a second resin vessel and change-out of the activated carbon, the GWE system was restarted on June 10, and as required by permit, representative discharge samples of arsenic were collected on an accelerated sampling schedule (weekly) until four consecutive weekly sample results for arsenic re-established system compliance. Permit compliance was re-established on July 12. Analytical data obtained in July will be included in the next quarterly DMR.

# VISUAL OBSERVATIONS

Based on the periodic inspections as documented in Attachment C and referenced in Table 1, the effluent stream was consistently clear and did not contain oil sheen, debris, or other particulate material. No odor has been detected in the effluent sample. Copies of the GWE System Monitoring Logs are provided in Attachment C.

# SUMMARY OF NON-COMPLIANCE

As indicated previously, arsenic concentrations in representative samples exceeded the NPDES permit, No. CAG994004, daily maximum discharge limit (0.01 mg/L). The GWE system was shut down May 1 to install a second ion exchange vessel and replace the activated carbon. On June 10, following installation of a second ion exchange vessel and GAC change out, the GWE was restarted. As required by permit, representative discharge samples for arsenic were collected on an accelerated sampling schedule (weekly) until four consecutive weekly sample results for arsenic re-established system compliance.

### LABORATORY CERTIFICATION

All analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or approved by the Executive Officer and in accordance with current USEPA procedures or as specified in this Monitoring Program. The laboratory's quality control data is attached. A copy of the laboratory certification is provided in Attachment B.

# **REPORT CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

Executed on the 15<sup>th</sup> day of August 2013, at Pasadena, California.

Sincerely,

ugh R. Watts

Joseph R. Walters, P.E. Senior Engineer

Edouer

Redwan Hassan, P.G. Project Manager

PARSONS as a duty authorized representative of the Defense Logistics Agency (DLA) Energy.

#### Attachments

Attachment A	Table 1         Groundwater Treatment System Operational Data
	Table 2 Analytical Results of Effluent Water Samples
Attachment B	Analytical Laboratory Reports and Electronic Submittal Confirmation
Attachment C	Groundwater Extraction Treatment System Monitoring Logs

# ATTACHMENT A

**Tables** 

# Table 1Groundwater Treatment System Operation DataDFSP Norwalk15306 Norwalk Boulevard, Norwalk, CA

	Outlet Totalizer	Monthly	
Date	(gals)	Flow (gals)	Comments
04/11/13 04/15/13 04/16/13 04/19/13 04/22/13	65,300,650 65,384,950 65,412,660 65,476,520 65,542,644	10,569 84,300 27,710 63,860 66,124	Changed arsenic resin, replaced bag and MX-7 filters.System restarted. GWTS operating normally. GWTS operating normally. Sampled effluent for arsenic. GWTS operating normally. GWTS operating normally. GWTS operating normally. Monthly NPDES compliance sample collected.
04/24/13	65,591,360		GWTS operating normally.
04/26/13 04/29/13 04/30/13	65,635,888 65,702,740 65,729,595	66,852	GWTS operating normally. GWTS operating normally. Sampled effluent for arsenic. GWTS operating normally.
Apr-13	439,514	439,514	
05/01/13	65,747,842	18,247	System operating normally. Shut down system after high arsenic detected in effluent.
May-13	18,247	18,247	
06/03/13	65,749,190	1,348	System restarted after installing second ion exchange bed to system. System operating normally. System restarted after changing activated carbon beds. System
06/10/13	65,752,075	2,885	operating normally.
06/11/13	65,773,820	21,745	GWTS operating normally. Quarterly NPDES compliance sample collected.
06/12/13	65,800,546		GWTS operating normally.
06/14/13 06/17/13	65,841,768 65,902,185	41,222 60,417	Changed MX-7 and bag filters. System operating normally. GWTS operating normally.
06/18/13	65,911,543		System off to repair level sensor malfunction.
06/26/13	65,922,465	10,922	System restarted. Sampled effluent for arsenic.
06/28/13	65,963,478		GWTS operating normally.
Jun-13	215,636	215,636	
Total	673,397	673,397	8633 gpd Average Flow Rate for Quarter

#### Table 2 Analytical Results of Effluent Water Samples DFSP Norwalk 15306 Norwalk Boulevard, Norwalk, California

Sampling Fr	requency							Мо	nthly								Quarterly				A	nnually
Analytical	Method	SM4500 H+B	Field	8015B mod.	EI	PA8260B		SM5520B		EPA	A 6010B/EPA (	6020		SM2130B	SM4500S2-D	SM4500- CL F	SM2540D	SM2540F	SM5540 C	EPA 420.1	EPA 405.1	EPA821F 02012
Date	Sample Loc.	рН	Temp. °C	TPH μg/L	Benzene μg/L	MTBE μg/L	TBA μg/L	Oil & Grease mg/L	Copper mg/L	Arsenic mg/L	Lead mg/L	Zinc mg/L	Selenium mg/L	Turbidity NTU	Sulfide mg/L	Residual Chlorine mg/L	Total Suspende d Solids mg/L	Settleable Solid mL/L/hr	MBAS mg/L	Phenols mg/L	BOD5 20°C mg/L	96 hr Fathead Minnow Survival %
GWTS was sh	nut down Fe	ebruary 12	th followi	ng an arse	nic exceeda	ance. GW	TS was	restarted A	pril 11th after o	comprehensive	e characterizat	ion of current	groundwater in	fluent and re	eplacing the ior	n exchange	resin.					
04/15/13	Effluent									0.00118												
04/22/13	Effluent	7.04	25.1	ND<100	ND<0.50	ND<0.50	ND<10	ND <1.0	0.00139	0.00619	ND <0.00100	0.00543	ND <0.00100	9.1	ND <0.050	ND <0.10	1.4	ND <0.10	ND <0.10	ND <0.10		
04/29/13	Effluent									0.0239												
GWTS was sh	nut down M	ay 1st follo	owing an	arsenic ex	ceedance.	GWTS wa	as restar	ted June 10	th after Install	atioin of a 2nd	ion exchange	vessel and GA	C change-out.									
06/11/13	Effluent	7.09	25.2	ND<100	ND<0.50	ND<0.50	ND<10	ND <1.0	0.0049	ND <0.00100	ND <0.00100	0.00774	ND <0.00100	0.09								
06/21/13	Effluent									ND <0.00100												
06/26/13	Effluent									ND <0.00100												
RL		0.01		100	0.50	0.50	10	1.0	0.00100	0.00100	0.00100	0.00500	0.00100	1.0	0.050	0.10	1.0	0.10	0.10	0.10	1.0	
MDI	_				0.14	0.31	4.6															
Daily Max	kimum	within 6.5-8.5	100°F (38°C)	100	1	5	12	15	0.02	0.01	0.106	0.158	0.008	150	1	0.1	150	0.3	0.5	1	30	minimum 90%
Monthly A	verage							10	0.01		0.053	0.079	0.004	50			50	0.1			20	

Notes: Analytical method for metals analysis changed from EPA 6010B to EPA 6020 to obtain lower reporting limit.

\* TPH as Diesel result, TPH as Gasoline not detected (reporting limit 100 ug/L)

Bold = Exceedance of standard

-- = not analyzed/not applicable

mg/L = milligram per liter

 $\mu g/L = microgram per liter$ 

NTU = nephelometric turbidity units

TPH = total petroleum hydrocarbon

MTBE = methyl-tert-butyl ether

MBAS = methyl blue active substances (sufactants)

MDL = Method detection limit (or Reporting Limit if MDL not provided)

ML= Minimum Reporting Limit (µg/L)

# ATTACHMENT B

Analytical Laboratory Reports



# WORK ORDER NUMBER: 13-04-1064

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 F. F. Clarke

Approved for release on 04/22/2013 by: Ranjit Clarke Project Manager



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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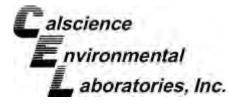
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**Work Order Narrative** 



# Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 04/15/2013. They were assigned to Work Order 13-04-1064.

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 an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

# 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:

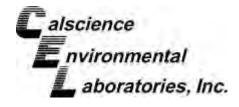
Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

# Subcontract Information:

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

 NELAP ID: 03220CA · DoD-ELAP ID: L10-41 · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830

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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:

# 04/15/13 13-04-1064 EPA 3020A Total EPA 6020

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Project: DFSP - Norwalk

								3
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent		13-04-1064-1-A	04/15/13 12:20	Aqueous	ICP/MS 03	04/18/13	04/18/13 21:32	130418L04
Parameter	Result	<u>RL</u>	DF	Qual	<u>Units</u>			
Arsenic	0.00118	0.00100	1		mg/L			
Surge Tank		13-04-1064-2-A	04/15/13 12:25	Aqueous	ICP/MS 03	04/18/13	04/18/13 21:35	130418L04
Parameter	Result	<u>RL</u>	DF	Qual	Units			
Arsenic	0.0577	0.00100	1		mg/L			
Method Blank		096-06-003-4,085	N/A	Aqueous	ICP/MS 03	04/18/13	04/18/13 17:21	130418L04
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Arsenic	ND	0.00100	1		mg/L			

 $\label{eq:RL-Reporting Limit} RL - Reporting Limit \ , \qquad DF - Dilution Factor \ , \qquad Qual - Qualifiers$ 

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Parsons Government Services, Inc.	Date Received:	04/15/13
100 West Walnut Street	Work Order No:	13-04-1064
Pasadena, CA 91124-0002	Preparation:	EPA 3020A Total
	Method:	EPA 6020

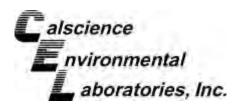
### Project DFSP - Norwalk

Quality Control Sample ID			Matrix	Ir	nstrument		Date epared	Date Analyzed		ISD Batch umber
13-04-1067-1			Aqueou	s IC	CP/MS 03	04/	18/13	04/18/13	130	418S04
Parameter	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> ADDED	<u>MS</u> CONC	<u>MS</u> %REC	<u>MSD</u> CONC	<u>MSD</u> <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Arsenic	0.004321	0.1000	0.1052	101	0.1050	101	80-120	0	0-20	

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RPD - Relative Percent Difference, CL - Control Limit

hM



# **Quality Control - PDS / PDSD**



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

Date Received Work Order No: Preparation: Method:

04/15/13 13-04-1064 EPA 3020A Total EPA 6020

# Project DFSP - Norwalk

Quality Control Sample ID	Matrix	c Instrun	nent	Date Prepared	Date Analyzed F	PDS/PDSD Batch Number
13-04-1067-1	Aqueo	ous ICP/M	IS 03	04/18/13	04/18/13	130418S04
Parameter	SAMPLE_CONC	SPIKE_ADDED	PDS_CONC	PDS %REC	<u>%REC CL</u>	<u>Qualifiers</u>
Arsenic	0.004321	0.1000	0.1007	96	75-125	

RPD - Relative Percent Difference, CL - Control Limit

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N ACCORD

# alscience nvironmental Quality Control - Laboratory Control Sample aboratories, Inc.

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

Date Received: Work Order No: Preparation: Method:



N/A 13-04-1064 EPA 3020A Total EPA 6020

# Project: DFSP - Norwalk

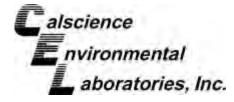
Quality Control Sample ID Matrix		Instrument	Date Analyzed	Date Analyzed Lab File		LCS Batch Number
096-06-003-4,085	Aqueous	ICP/MS 03	04/18/13	130418-L-04133.icp		130418L04
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec Cl</u>	Qualifiers
Arsenic		0.1000	0.09631	96	80-120	

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RPD - Relative Percent Difference, CL - Control Limit

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# Sample Analysis Summary Report



# WORK ORDER #: <u>13-04-1064</u>

Lab Sample Number	Client Sample ID	Method	Extraction	Date/Time Analyzed	Chemist ID	Instrument	Analytical Location
1-A	Effluent	EPA 6020	EPA 3020A T	04/18/2013 21:32	598	ICP/MS 03	1
2-A	Surge Tank	EPA 6020	EPA 3020A T	04/18/2013 21:35	598	ICP/MS 03	1

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	Return to Contents

Location	Description
1	7440 Lincoln Way, Garden Grove, CA 92841



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# **Glossary of Terms and Qualifiers**



### Work Order Number: 13-04-1064

Qualifier	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 was reported without further 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 matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
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.
E	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 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).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
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.
Z	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.
	For any applying identified as a "field" test with a holding time ( $\mu$ T) $z/-15$ minutes where the sample is

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

Ć	Calscience E	nvironme				ries	s, Ir	IC.									СН							RECO	RD
	SoCal Laboratory 7440 Lincoln Way Garden Grove, CA (714) 895-5494		NorCal Se 5063 Con Concord, (925) 689	nmercial CA 9452	Circle,		4		WO					64			Date Page				<u> </u>	5 <b>-/</b> 3			
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TEL:		Mary, Lucas	a farr				- 1			,			F	REG	QÚE	ST	ED		NAI	_YS	;ES	;	<u>,</u>		
TURN		<i>i</i>									Î														
	AME DAY 24 HR GLOBAL ID COELT EDF	48 HR 72 H		TANDAR		LOG	CODE			- (C6-C44)					35)							(0			
SPEC	CIAL INSTRUCTIONS:					Unpreserved	rved	Field Filtered	[PH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)		BTEX / MTBE (8260) or (	(8260)	Oxygenates (8260)	Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]	Arsenic	
LAB USE ONLY	SAMPLE ID	SAMPI DATE	-ING TIME	MATRIX	NO. OF CONT.	Unpre	Preserved	Field F	TPH (g	TPH (d	_) НЧТ	втех	VOCs (8260)	Oxyge	En Col	SVOC	Pestici	PCBs	PNAs	T22 M	Cr(VI)	Air - V	Air - T	Ars	
1	Effluent	4-15-13	1220	cw	1		×																	X	
V	Effluent Surge Tank	11	1225	GW	1		×																	×	
				_																					
	· · · · · · · · · · · · · · · · · · ·					T																			
Relinquished by: (Signature)       Received by: (Signature)         Relinquished by: (Signature)       Received by: (Signature)         Relinquished by: (Signature)       Received by: (Signature)         Relinquished by: (Signature)       Received by: (Signature)				ture//	ffiliati	$C^{O(n)}$	51							Date		-13	3	Tim	36						
				MNnyte ch					Date: Time: <u> <u> </u> </u>			20													
Keli	nquished by: (Signature)	<i>u ~ [V</i>					,y. (	(gna			,														

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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 not Yellow copies respectively.

				Page 7	11 of 11
Laiscience Environmental	WORł	ORDER #:	13-04	4-17 0	64
Laboratorles, Inc. SAMPLE	REC		SW 0	Cooler	) of
A A B ALL B	INEO				
CLIENT: <u>P/F/S(IN) S</u>			DATE:	04 / [	5/13
TEMPERATURE: Thermometer ID: SC1 (Criteria			/	diment/tiss	ue)
Temperature °C - 0.2 °C (CF)	=	<u>_•_(</u> °C 🛛	Blank	🗌 Samp	le
Sample(s) outside temperature criteria (PM/APM)	√ contacted	l by:).			
Sample(s) outside temperature criteria but receiv	ved on ice/	chilled on same da	ay of sampl	ing.	
□ Received at ambient temperature, placed o	n ice for t	ransport by Co	urier.		<i>A</i> <b>A</b>
Ambient Temperature: 🛛 Air 🛛 Filter				Initia	al: <u>///</u>
		/			
CUSTODY SEALS INTACT:	(ntact)	D Not Present	□ N/A	Inifi	al: <u>BN</u>
		Z Not Present			al: <u># H</u>
□ Sample □ □ No (Not I					
SAMPLE CONDITION:		٦	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received v	with samp	les	Ĺ		
COC document(s) received complete					
□ Collection date/time, matrix, and/or # of containers log	gged in base	ed on sample labels.			
🗋 No analysis requested. 🛛 🛛 Not relinquished. 🛛	] No date/tim	e relinquished.	×		
Sampler's name indicated on COC			Ø		
Sample container label(s) consistent with COC			Ø		
Sample container(s) intact and good condition			2		
Proper containers and sufficient volume for analy					
Analyses received within holding time			Ø		
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen			/		Ø
Proper preservation noted on COC or sample co	ontainer		ď		
Unpreserved vials received for Volatiles analysis	3				
Volatile analysis container(s) free of headspace			. 🗆		
Tedlar bag(s) free of condensation	,				đ
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □S	Sleeve (	) □EnCore	s® ⊡⊤erra	aCores® [	]
Water: □VOA □VOAh □VOAna₂ □125AGB					
□500AGB □500AGJ □500AGJs □250AGB	□250C	GB □250CGBs	□1PB	□1PB <b>na</b>	□500PB
□250PB Ø250PBn □125PB □125PBznna □	3100PJ [	]100PJ <b>na₂</b> □	0		]
Air: □Tedlar <sup>®</sup> □Canister Other: □1	Trip Blanl	< Lot#:	Labeled	/Checked b	y: <u>HH</u>
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s:	e Z: Ziploc/R	esealable Bag E: En	velope	Reviewed k	$\mathbf{y}: \underline{\mathbf{h}} \underbrace{\mathbf{h}}_{\mathbf{h}}$



# WORK ORDER NUMBER: 13-04-1558

The difference is service



AIR SOIL WATER MARINE CHEMISTRY

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

Ranjit K. F. Clarke

Approved for release on 04/30/2013 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.



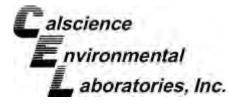
10 Lincoln Way, Garden Grove, CA 92841-1432 🔹 TEL: (714) 895-5494 🔹 FAX: (714) 894-7501 🔹 www.calscience.com

**Contents** 



Client Project Name: DFSP Norwalk - Quarterly Work Order Number: 13-04-1558

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3	Quality Control Sample Data       3.1 MS/MSD and/or Duplicate         3.2 LCS/LCSD       3.2 LCS/LCSD	7 7 10
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5	Glossary of Terms and Qualifiers	18
6	Chain of Custody/Sample Receipt Form	19



**Work Order Narrative** 



# Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 04/22/2013. They were assigned to Work Order 13-04-1558.

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 an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

# Quality Control:

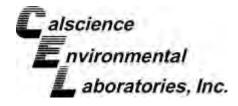
All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

# Additional Comments:

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.

# Subcontract Information:

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



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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:

# 04/22/13 13-04-1558 EPA 3510C EPA 8015B (M)

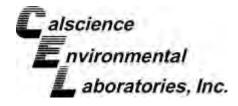
Page 1 of 1

Project: DFSP Norwalk - Quarterly

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent		13-04-1558-1-N	04/22/13 12:15	Aqueous	GC 45	04/24/13	04/25/13 04:33	130424B05
Parameter	Result	RL	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Diesel	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
n-Octacosane	93	68-140						
Method Blank		099-15-282-94	N/A	Aqueous	GC 45	04/24/13	04/25/13 03:41	130424B05
Parameter	Result	<u>RL</u>	DF	Qual	<u>Units</u>			
TPH as Diesel	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
n-Octacosane	97	68-140						

hM

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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:

# 04/22/13 13-04-1558 EPA 5030C EPA 8015B (M)

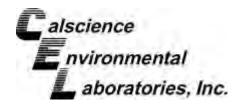
Page 1 of 1

Page 5 of 20

Project: DFSP Norwalk - Quarterly

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent		13-04-1558-1-E	04/22/13 12:15	Aqueous	GC 25	04/24/13	04/24/13 21:28	130424B01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	81	38-134						
Method Blank		099-15-704-351	N/A	Aqueous	GC 25	04/24/13	04/24/13 10:47	130424B01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	81	38-134						

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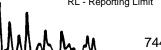
**0**4/22/13

Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No:

Page 1 of 1

# Project: DFSP Norwalk - Quarterly

Client Sample Number		L	ab Sample	Number	Date Collected	Matrix		
Effluent			13-04-155	8-1	04/22/13	Aqueous		
Parameter	<u>Results</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> Analyzed	Method
Phenolics, Total	ND	0.10	1		mg/L	04/25/13	04/25/13	EPA 420.1
Turbidity	9.1	0.10	1		NTU	N/A	04/22/13	SM 2130 B
Solids, Total Suspended	1.4	1.0	1		mg/L	04/24/13	04/24/13	SM 2540 D
Solids, Settleable	ND	0.10	1		mL/L/hr	N/A	04/23/13	SM 2540 F
рН	7.04	0.01	1		pH units	N/A	04/22/13	SM 4500 H+ B
Sulfide, Total	ND	0.050	1		mg/L	04/24/13	04/24/13	SM 4500 S2 - D
Chlorine, Total Residual	ND	0.10	1		mg/L	N/A	04/22/13	SM 4500-CI F
Oil and Grease	ND	1.0	1		mg/L	04/26/13	04/26/13	SM 5520 B
MBAS	ND	0.10	1		mg/L	04/23/13	04/23/13	SM 5540C
Method Blank					N/A	Aqueous		
Parameter	<u>Results</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> Analyzed	Method
Phenolics, Total	ND	0.10	1		mg/L	04/25/13	04/25/13	EPA 420.1
Solids, Total Suspended	ND	1.0	1		mg/L	04/24/13	04/24/13	SM 2540 D
Sulfide, Total	ND	0.050	1		mg/L	04/24/13	04/24/13	SM 4500 S2 - D
Chlorine, Total Residual	ND	0.10	1		mg/L	N/A	04/22/13	SM 4500-CI F
Oil and Grease	ND	1.0	1		mg/L	04/26/13	04/26/13	SM 5520 B
MBAS	ND	0.10	1		mg/L	04/23/13	04/23/13	SM 5540C



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Parsons Government Services, Inc.	Date Received:	04/22/13
100 West Walnut Street	Work Order No:	13-04-1558
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	SM 5540C

# Project DFSP Norwalk - Quarterly

Quality Control Sample ID			Matrix	Ir	nstrument		Date epared	Date Analyzed		ISD Batch umber
Effluent			Aqueou	us U	V 8	04/2	23/13	04/23/13	D042	23SURS1
Parameter	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> ADDED	<u>MS</u> CONC	<u>MS</u> <u>%REC</u>	MSD CONC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
MBAS	ND	1.0	0.96	96	0.98	98	70-130	2	0-25	



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N ACCORD

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Parsons Government Services, Inc.	Date Received:	04/22/13
100 West Walnut Street	Work Order No:	13-04-1558
Pasadena, CA 91124-0002	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)

# Project DFSP Norwalk - Quarterly

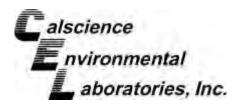
Quality Control Sample ID			Matrix	l	nstrument		Date epared	Date Analyzed		ISD Batch umber
13-04-1420-1			Aqueou	us C	GC 25	04/2	24/13	04/24/13	130	424S01
Parameter	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> ADDED	<u>MS</u> CONC	<u>MS</u> %REC	MSD CONC	<u>MSD</u> <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	ND	2000	1884	94	1921	96	68-122	2	0-18	



RPD - Relative Percent Difference, CL - Control Limit

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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: N/A 13-04-1558

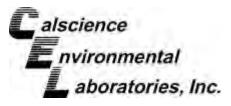
Project: DFSP Norwalk - Quarterly

Matrix: Aqueous or Solid								
Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Chlorine, Total Residual	SM 4500-CI F	Effluent	04/22/13	ND	ND	NA	0-25	
Turbidity	SM 2130 B	13-04-1521-1	04/22/13	0.62	0.63	2	0-25	
рН	SM 4500 H+ B	13-04-1521-1	04/22/13	7.24	7.27	0	0-25	
Sulfide, Total	SM 4500 S2 - D	13-04-1428-3	04/24/13	ND	ND	NA	0-25	
Solids, Settleable	SM 2540 F	13-04-1631-1	04/23/13	ND	ND	NA	0-25	
Solids, Total Suspended	SM 2540 D	13-04-1454-2	04/24/13	77	75	2	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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

Date Received:	N/A
Work Order No:	13-04-1558
Preparation:	N/A
Method:	EPA 420.1

# Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix		Instrument		ate pared	Date Analyzed	b	LCS/LCSD Batch Number	
099-05-085-2,642	Aqueous		UV 8	04/2	25/13	04/25/13		D0425PHEL1	
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Phenolics, Total	0.50	0.45	90	0.42	84	80-120	7	0-20	



RPD - Relative Percent Difference, CL - Control Limit

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IN ACCORDANC

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N/A

13-04-1558

SM 5540C



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

Date Received:	
Work Order No:	
Preparation:	
Method:	

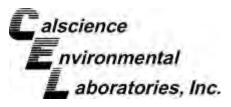
# Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix	Instrument Date Analyzed		Lab File ID	LCS Batch Number
099-05-093-2,491	Aqueous	UV 8	UV 8 04/23/13		D0423SURL1
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec CL</u> Qualifiers
MBAS		1.0	0.97	97	80-120

RPD - Relative Percent Difference, CL - Control Limit

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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:

N/A 13-04-1558 N/A SM 4500 S2 - D

# Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix	I	nstrument		ate pared	Date Analyzed	1	LCS/LCSD Batch Number	
099-15-853-35	Aqueous		N/A	04/2	24/13	04/24/13		D0424SL1	
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Sulfide, Total	1.0	0.80	80	0.80	80	80-120	0	0-20	

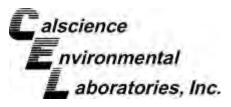
RPD - Relative Percent Difference, CL - Control Limit

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N/A

N/A





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

Date Received: Work Order No: 13-04-1558 Preparation: Method: SM 5520 B

# Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix		Instrument		ate pared	Date Analyzed	ł	LCS/LCSD Batch Number	
099-05-081-2,901	Aqueous		N/A	04/2	26/13	04/26/13		D0426OGL1	
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Oil and Grease	40.0	39.2	98	38.0	95	80-120	3	0-20	



RPD - Relative Percent Difference, CL - Control Limit

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

Date Received: Work Order No: Preparation: Method:



N/A
13-04-1558
N/A
SM 2540 D

# Project: DFSP Norwalk - Quarterly

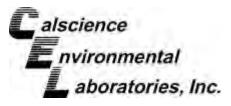
Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number	
099-09-010-6,263	Aqueous	N/A	04/24/13	NONE	D0424TSSL1	
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec CL</u> Qualifiers	
Solids, Total Suspended		100	92	92	80-120	

RPD - Relative Percent Difference, CL - Control Limit

MM

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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method: N/A 13-04-1558 EPA 3510C EPA 8015B (M)

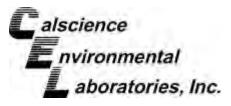
# Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix		Instrument	Date Prepared		Date Analyzed		LCS/LCSD Batch Number	
099-15-282-94	Aqueous		GC 45	04/2	24/13	04/25/13		130424B05	
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
TPH as Diesel	4000	4082	102	3899	97	75-117	5	0-13	

RPD - Relative Percent Difference, CL - Control Limit

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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method: N/A 13-04-1558 EPA 5030C EPA 8015B (M)

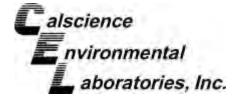
# Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix		Instrument	Date Prepared		Date Analyzed		LCS/LCSD Batch Number	
099-15-704-351	Aqueous		GC 25	04/2	24/13	04/24/13		130424B01	
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	2000	1954	98	1925	96	78-120	2	0-10	

RPD - Relative Percent Difference, CL - Control Limit

hM

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



# Sample Analysis Summary Report



#### WORK ORDER #: <u>13-04-1558</u>

Lab Sample Number	Client Sample ID	Method	Extraction	Date/Time Analyzed	Chemist ID	Instrument	Analytical Location
1-I	Effluent	SM 4500-CI F	N/A	04/22/2013 19:23	688	BUR16	1
1-L	Effluent	SM 5520 B	N/A	04/26/2013 20:00	691	N/A	1
1-M	Effluent	EPA 420.1	N/A	04/25/2013 17:54	686	UV 8	1
1-K	Effluent	SM 2540 F	N/A	04/23/2013 14:00	691	N/A	1
1-l	Effluent	SM 5540C	N/A	04/23/2013 15:23	686	UV 8	1
1-J	Effluent	SM 2540 D	N/A	04/24/2013 15:30	722	N/A	1
1-l	Effluent	SM 2130 B	N/A	04/22/2013 19:26	688	TUR 3	1
1-E	Effluent	EPA 8015B (M)	EPA 5030C	04/24/2013 21:28	797	GC 25	2
1-l	Effluent	SM 4500 H+ B	N/A	04/22/2013 19:01	688	PH 1	1
1-N	Effluent	EPA 8015B (M)	EPA 3510C	04/25/2013 4:33	682	GC 45	1
1-G	Effluent	SM 4500 S2 - D	N/A	04/24/2013 19:06	735	N/A	1

Location	Description
1	7440 Lincoln Way, Garden Grove, CA 92841
2	7445 Lampson Avenue, Garden Grove, CA 92841



MM

# **Glossary of Terms and Qualifiers**



#### Work Order Number: 13-04-1558

Qualifier	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 was reported without further 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 matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
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.
E	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 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).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
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.
Z	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.
	For any applying identified as a "field" test with a helding time (LT) -( _15 minutes where the sample is

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

	ATORY CLIENT: sons, Inc. W. Walnut Street sadena, CA 91124 - 440-6032 ROUND TIME AME DAY 24 HR	7440 LINCOLN WAY GARDEN GROVE, CA 924 TEL: (714) 895-5494 . FAX	X: (714) 894-	E-MAIL MA	ary.Lu ms.Co 5 DA		DF PRO.	FSP	OJECT Nor CONTA MY L SY (SIG	wall	( - Q	uart	nd	, Z sh		D/ P/ <ev< th=""><th>ATE:</th><th></th><th>1 OF P.O. NO.: <b>747572</b> QUOTE NO.:</th><th>1</th><th></th></ev<>	ATE:		1 OF P.O. NO.: <b>747572</b> QUOTE NO.:	1	
LAB USE	AL REQUIREMENTS (ADDITIONA <u>RWQCB REPORTING</u> AL INSTRUCTIONS SAMPLE ID			/ PLING TIME	// MAT- RIX	NO. OF CONT.	Turbidity (SM 2130B)	Oil & Grease (SM 5520B)	pH (SM 4500 H+B)	TPH-Diesel/Gas (EPA 8015B(M))	<del>VOCs + Oxys(EPA 8260B) →</del>	Metals (EPA 6020: As,Cu,Se,Pb,Zn) -	Total Suspended Solids (SM 2540D)	Settleable Solids (SM 2540F)	Total Sulfides (SM 4500 S-2)	Phenolics (EPA 420.1)	Residual Chlorine (SM 4500 CI F)	MBAS (SM 5540C)		<u>~</u>	
	Effluent		4-22-13	JZ.15	W	,		x			*	×	м на	x	1 X	X	X	×		ments	
Relino	uished by: (Signature) uished by: (Signature) uished by: (Signature)	mænde Rudyn			Receiv	red by: (: red by: (: red by: (:	Signati	ure)		Par		- gl		C	n				Date: 4-22-/3 Date: 4/22/13 Date:	Time: <i>1</i> 718 Time: 18:05 Time:	

P

Revised: 08/28/08



			F	Page 20 of 20
Calscience Environmental	WORK OR	RDER #: <b>13-</b>	04-[/	BIJB
Aboratorles, Inc. SAMPLE	RECEIP	T FORM	Coole	er Í of Í
CLIENT: PARSONS				4 /22/13
TEMPERATURE: Thermometer ID: SC1 (Criteria	a: 0.0 °C – 6.0 °C,	, not frozen excep	t sedimen	t/tissue)
Temperature $2 \cdot 2^{\circ}C - 0.2^{\circ}C$ (CF)	= 2.0	_°C 🗹 Blan	k 🗆 S	ample
Sample(s) outside temperature criteria (PM/APM)	I contacted by:	).		
Sample(s) outside temperature criteria but receiv	ved on ice/chilled	on same day of sa	mpling.	
□ Received at ambient temperature, placed o	n ice for transp	ort by Courier.		
Ambient Temperature: 🗆 Air 🛛 🗆 Filter				Initial: <u>RM</u>
				1
CUSTODY SEALS INTACT:				111
□ Cooler □ □ No (Not Ir		t Present	N/A	Initial: <u>6/1</u>
□ Sample □ □ No (Not I	ntact) 🔏 No	t Present		Initial:
SAMPLE CONDITION:		Yes	No	N/A
Chain-Of-Custody (COC) document(s) received v	vith samples			
COC document(s) received complete		/ ·		
□ Collection date/time, matrix, and/or # of containers log				
□ No analysis requested. □ Not relinquished. □	No date/time reling	uished.		
Sampler's name indicated on COC				
Sample container label(s) consistent with COC		······		
Sample container(s) intact and good condition				
Proper containers and sufficient volume for analy	ses requested			
Analyses received within holding time				
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen		-		
Proper preservation noted on COC or sample cor	ntainer			
Unpreserved vials received for Volatiles analysis				
Volatile analysis container(s) free of headspace				
Tedlar bag(s) free of condensation				
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □S				
Water: □VOA □VOAn □VOAna <sub>2</sub> □125AGB			[7]	
□500AGB Ø500AGJ Ø500AGJs □250AGB				na □500PB
□250PB 2250PBnu□125PB 2125PBznna □				
Air: □Tedlar <sup>®</sup> □Canister Other: □ T Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s:	Z: Ziploc/Resealable	e Bag E: Envelope	Review	/ed by:

SOP T100\_090 (11/20/12)

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# WORK ORDER NUMBER: 13-04-1572

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 F. F. Clarke

Approved for release on 04/29/2013 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.



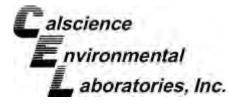
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**Contents** 



Client Project Name:DFSP NorwalkWork Order Number:13-04-1572

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**Work Order Narrative** 



# Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 04/22/2013. They were assigned to Work Order 13-04-1572.

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 an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

### Quality Control:

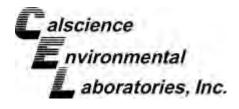
All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### Additional Comments:

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.

#### Subcontract Information:

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



**Analytical Report** 

Date Received:

Work Order No:



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04/22/13

13-04-1572

Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91

							Jidei No.					4-157	
Pasadena, CA 91124-0	002					Prepar	ation:				EPA	50300	С
						Method	1:				EPA	8260	В
						Units:						ug/	
Project: DFSP Norwalk	K					ornio.					Page	e 1 of :	
Client Sample Number			Lab Sa Num			Date/Time Collected	Matrix	Instrument	Date Prepa		ate/Time nalyzed	QC Bat	ch ID
Effluent			13-04-	1572-1-	A	04/22/13 12:15	Aqueous	GC/MS OC	04/23/	13 0	4/23/13 16:27	130423	3L01
Comment(s): -Results were	evaluated to t	he MDL (D		entration	s >= to	the MDL (DI	) but < RL (I	OQ) if found	d are qual	ified with	a ".l" fla	n	
Parameter	Result	<u>RL</u>	MDL	DF	Qual	Parameter	-) 201 +112 (1			<u>RL</u>	MDL	DF	Qual
Acetone	ND	20	10	1			oropropene		ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichl			ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenze	• •		ND	0.50	0.20	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanon			ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbe			ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropy			ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene			ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-			ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthaler			ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbe			ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	120110		ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1			rachloroethai	ne	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1			rachloroetha		ND	1.0	0.40	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloro			ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene			ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1			lorobenzene		ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1			lorobenzene		ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trich			ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1				ifluoroethane		10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trich			ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroet			ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1			oromethane		ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1			loropropane		ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1			ethylbenzene		ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1			ethylbenzene		ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Aceta			ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chlor			ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene			ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene			ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1			utyl Ether (M	FBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1			Alcohol (TBA	,	8.9	10	4.6	1	J
t-1,2-Dichloroethene	ND	1.0	0.37	1			Ether (DIPE		ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1			/I Ether (ETE	,	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1			Methyl Ether	,	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol		. /	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1									
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qua	al		Surrogates	<u>:</u>		<u>REC (%)</u>	<u>Contro</u> Limits	<u>l C</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	98	80-120				Dibromoflu	oromethane		95	80-126	5		
1,2-Dichloroethane-d4	99	80-134				Toluene-d8			99	80-120			
1,2-DIGHIOI DEUIAHE-04		00-104					,		50	00-120	,		

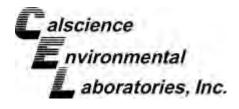
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RL - Reporting Limit , MM

DF - Dilution Factor ,

Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



**Analytical Report** 

Date Received:



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04/22/13

Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 911

100 West Walnut Stree Pasadena, CA 91124-0	002					Work C Prepara Method Units:					EPA EPA	4-157 50300 82601 ug/	C 3 L
Project: DFSP Norwalk	(		Lab S	Sample		Date/Time			Date	e D	Page ate/Time	e 2 of 2	
Client Sample Number			Nu	nber		Collected	Matrix	Instrument	Prepa		nalyzed	QC Bat	ch ID
Method Blank			099-1	4-001-1	0,745	N/A	Aqueous	GC/MS OO	04/23/	13 0	4/23/13 13:19	130423	L01
Comment(s): -Results were	evaluated to t	he MDL (D	L), conc	entration	ns >= to	the MDL (DL	_) but < RL (I	_OQ), if found	d, are qual	ified with	n a "J" flag	-	
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	DF	<u>Qual</u>	Parameter			Result	<u>RL</u>	MDL	DF	<u>Qual</u>
Acetone	ND	20	10	1		c-1,3-Dichl	oropropene		ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichlo	propropene		ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenze	ne		ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanon	e		ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbe	enzene		ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyl	toluene		ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene	Chloride		ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-	Pentanone		ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthaler	e		ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbe	nzene		ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene			ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tet	rachloroetha	ne	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tet	rachloroetha	ne	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloro	ethene		ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene			ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trich	lorobenzene		ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trich	lorobenzene		ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trich	loroethane		ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trich	loro-1,2,2-Tr	ifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trich			ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroet	nene		ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichloroflu	oromethane		ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trich	loropropane		ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1			ethylbenzene		ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1			ethylbenzene		ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Aceta			ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chlor	de		ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene			ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene			ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Bu	ityl Ether (M	ΓBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1			Alcohol (TBA		ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl	Ether (DIPE	)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1			/I Ether (ETE		ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1			Methyl Ether	,	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	-		ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1									
Surrogates:	<u>REC (%)</u>	) <u>Control</u> Limits	<u>Qı</u>	ual		Surrogates	<u>.</u>		<u>REC (%)</u>	Contro Limits		Qual	
1,4-Bromofluorobenzene	99	80-120				Dibromoflu	oromethane		95	80-12	6		
1,2-Dichloroethane-d4	98	80-134				Toluene-d8			100	80-12			

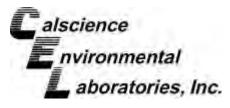
**Return to Contents** 

RL - Reporting Limit , MM

DF - Dilution Factor ,

Qual - Qualifiers

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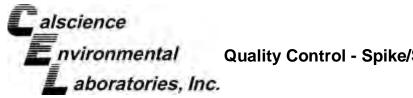


**Analytical Report** 



	Parsons Government Services, Inc. 100 West Walnut Street				Date R Work (	04/22/13 13-04-1572				
Pasadena, C	A 91124-0002				Prepar	EPA 3020A Total				
					Method	d:			EP	A 6020
					Units:					mg/L
Project: DFS	SP Norwalk								Page	e 1 of 1
Client Sample Nun	nber		Lab San Numb		Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent			13-04-1	572-1-D	04/22/13 12:15	Aqueous	ICP/MS 03	04/24/13	04/24/13 18:34	130424L02
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter		Result	<u>RL</u>	DF	<u>Qual</u>
Arsenic	0.00619	0.00100	1		Selenium		ND	0.00		
Copper	0.00139	0.00100	1		Zinc		0.00543	0.00	500 1	
Lead	ND	0.00100	1							
Method Blank			096-06-	003-4,094	N/A	Aqueous	ICP/MS 03	04/24/13	04/24/13 17:26	130424L02
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter		<u>Result</u>	<u>RL</u>	DF	Qual
Arsenic	ND	0.00100	1		Selenium		ND	0.00		
Copper	ND	0.00100	1		Zinc		ND	0.00	500 1	
Lead	ND	0.00100	1							

MM





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

Date Received: Work Order No: Preparation: Method:

04/22/13 13-04-1572 EPA 3020A Total EPA 6020

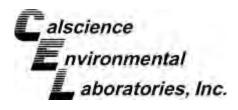
# Project DFSP Norwalk

Quality Control Sample ID			Matrix	Ir	nstrument		Date epared	Date Analyzed		ISD Batch umber
13-04-1640-2			Aqueou	s IC	CP/MS 03	04/2	23/13	04/24/13	130	424S02
Parameter	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> ADDED	<u>MS</u> CONC	<u>MS</u> <u>%REC</u>	MSD CONC	<u>MSD</u> <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Arsenic	4.750	0.1000	4.656	4X	4.572	4X	73-127	4X	0-11	Q
Copper	0.001197	0.1000	0.1008	100	0.1005	99	72-108	0	0-10	
Lead	ND	0.1000	0.1092	109	0.1078	108	79-121	1	0-10	
Selenium	ND	0.1000	0.08959	90	0.08701	87	59-125	3	0-12	
Zinc	ND	0.1000	0.09515	95	0.08890	89	43-145	7	0-39	

RPD - Relative Percent Difference, CL - Control Limit

hM

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# **Quality Control - PDS / PDSD**



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

Date Received Work Order No: Preparation: Method:

# 04/22/13 13-04-1572 EPA 3020A Total EPA 6020

#### Project DFSP Norwalk

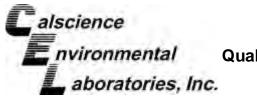
Quality Control Sample ID	Matrix	Instrur	nent	Date Prepared	Date Analyzed	PDS/PDSD Batch Number	
13-04-1640-2	Aqueo	us ICP/N	IS 03	04/23/13	04/24/13	130424S02	
Parameter	SAMPLE_CONC	SPIKE_ADDED	PDS_CONC	PDS %REC	<u>%REC CL</u>	Qualifiers	
Arsenic	4.750	0.1000	4.705	4X	75-125	Q	
Copper	0.001197	0.1000	0.1004	99	75-125		
Lead	ND	0.1000	0.1065	107	75-125		
Selenium	ND	0.1000	0.08912	89	75-125		
Zinc	ND	0.1000	0.09177	92	75-125		



RPD - Relative Percent Difference, CL - Control Limit

h.M

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Return to Contents

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

Date Received:	04/22/13
Work Order No:	13-04-1572
Preparation:	EPA 5030C
Method:	EPA 8260B

### Project DFSP Norwalk

Quality Control Sample ID			Matrix		nstrument		Date epared	Date Analyzed		ISD Batch umber
13-04-1260-1			Aqueou	is (	GC/MS OO	04/2	04/23/13 04/		130	423S02
Parameter	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> ADDED	MS CONC	<u>MS</u> <u>%REC</u>	<u>MSD</u> CONC	<u>MSD</u> <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	ND	50.00	45.87	92	55.15	110	78-120	18	0-20	
Carbon Tetrachloride	ND	50.00	49.85	100	59.00	118	67-139	17	0-20	
Chlorobenzene	ND	50.00	48.67	97	57.62	115	80-120	17	0-20	
1,2-Dibromoethane	ND	50.00	45.70	91	54.83	110	80-123	18	0-20	
1,2-Dichlorobenzene	ND	50.00	48.15	96	57.25	115	76-120	17	0-20	
1,2-Dichloroethane	ND	50.00	46.28	93	55.66	111	76-130	18	0-20	
1,1-Dichloroethene	ND	50.00	48.16	96	56.09	112	70-130	15	0-27	
Ethylbenzene	ND	50.00	46.80	94	55.20	110	73-127	16	0-20	
Toluene	ND	50.00	47.85	96	57.12	114	72-126	18	0-20	
Trichloroethene	ND	50.00	46.54	93	54.98	110	74-122	17	0-20	
Vinyl Chloride	ND	50.00	42.42	85	50.90	102	65-131	18	0-24	
p/m-Xylene	ND	100.0	91.65	92	109.3	109	70-130	18	0-30	
o-Xylene	ND	50.00	47.44	95	56.38	113	70-130	17	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	41.55	83	48.99	98	69-123	16	0-20	
Tert-Butyl Alcohol (TBA)	ND	250.0	261.8	105	304.0	122	65-131	15	0-22	
Diisopropyl Ether (DIPE)	1.804	50.00	45.68	88	53.59	104	68-128	16	0-22	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	41.52	83	48.27	97	69-123	15	0-21	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	41.55	83	50.19	100	70-124	19	0-20	
Ethanol	ND	500.0	661.2	132	723.0	145	41-155	9	0-35	

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# Calscience Environmental Quality Control - Laboratory Control Sample Laboratories, Inc.

Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:



N/A 13-04-1572 EPA 3020A Total EPA 6020

# Project: DFSP Norwalk

Quality Control Sample ID Matrix		Instrument	Date Analyzed	Lab File	D LO	LCS Batch Number			
096-06-003-4,094	Aqueous	ICP/MS 03	3 04/24/13	130424-L-02_	_092.icp	130424L02			
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec CL</u>	Qualifiers			
Arsenic		0.1000	0.1040	104	80-120				
Copper		0.1000	0.1101	110	80-120				
Lead		0.1000	0.1015	101	80-120				
Selenium		0.1000	0.09767	98	80-120				
Zinc		0.1000	0.1079	108	80-120				

RPD - Relative Percent Difference, CL - Control Limit

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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received:N/AWork Order No:13-04-1572Preparation:EPA 5030CMethod:EPA 8260B

#### Project: DFSP Norwalk

Quality Control Sample ID	Matrix Inst		Matrix Instrument				ate Iyzed	LCS	I	
099-14-001-10,745	Aque	Aqueous		)	04/23/13	04/2:	3/13	1		
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS <u>%REC</u>	LCSD CONC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Benzene	50.00	46.05	92	52.50	105	80-120	73-127	13	0-20	
Carbon Tetrachloride	50.00	49.17	98	56.57	113	66-138	54-150	14	0-20	
Chlorobenzene	50.00	48.22	96	54.77	110	80-120	73-127	13	0-20	
1,2-Dibromoethane	50.00	46.69	93	52.84	106	80-120	73-127	12	0-20	
1,2-Dichlorobenzene	50.00	47.60	95	54.74	109	80-120	73-127	14	0-20	
1,2-Dichloroethane	50.00	47.96	96	53.37	107	80-129	72-137	11	0-20	
1,1-Dichloroethene	50.00	47.04	94	53.88	108	71-131	61-141	14	0-20	
Ethylbenzene	50.00	45.77	92	52.77	106	80-123	73-130	14	0-20	
Toluene	50.00	47.52	95	55.38	111	79-121	72-128	15	0-20	
Trichloroethene	50.00	45.55	91	53.54	107	80-120	73-127	16	0-20	
Vinyl Chloride	50.00	42.54	85	48.63	97	70-136	59-147	13	0-20	
p/m-Xylene	100.0	90.80	91	103.8	104	75-125	67-133	13	0-25	
o-Xylene	50.00	46.47	93	52.79	106	75-125	67-133	13	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	41.86	84	46.78	94	72-126	63-135	11	0-22	
Tert-Butyl Alcohol (TBA)	250.0	226.7	91	265.2	106	71-125	62-134	16	0-25	
Diisopropyl Ether (DIPE)	50.00	43.64	87	49.82	100	69-129	59-139	13	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	41.12	82	46.37	93	69-129	59-139	12	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	42.54	85	47.57	95	67-133	56-144	11	0-20	
Ethanol	500.0	556.5	111	688.3	138	47-155	29-173	21	0-36	

Total number of LCS compounds : 19

Total number of ME compounds : 0

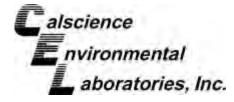
Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference, CL - Control Limit

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# Sample Analysis Summary Report



### WORK ORDER #: 13-04-1572

Lab Sample Number	Client Sample ID	Method	Extraction	Date/Time Analyzed	Chemist ID	Instrument	Analytical Location		
1-D	Effluent	EPA 6020	EPA 3020A T	04/24/2013 18:34	598	ICP/MS 03	1		
1-A	Effluent	EPA 8260B	EPA 5030C	04/23/2013 16:27	486	GC/MS OO	2		

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Location	Description
1	7440 Lincoln Way, Garden Grove, CA 92841
2	7445 Lampson Avenue, Garden Grove, CA 92841



MM

# **Glossary of Terms and Qualifiers**



#### Work Order Number: 13-04-1572

Qualifier	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 was reported without further 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 matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
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.
E	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 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).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
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.
Z	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.
	For any applying identified as a "field" test with a helding time (HT) / 15 minutes where the sample is

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

Calscience Environmental Laboratories, Inc.																CH	IAIP		FC	UST	ГОС	)Y F	REC	ORE	)	
Ē	SoCal Laboratory 7440 Lincoln Way								WO # / LAB USE ONLY								Date	9		4-22-13						-
Garden Grove, CA 92841-1427 Concord, CA 94520-8577 (714) 895-5494 (925) 689-9022								<b>13-04-1572</b>							Pag	e		/ of /								
BOR	ATORY CLIENT: Parsons								8					IUMBE						P.O. NO.:						
DDRE				P.(116)						DFS	P-	Nor	ind	lk						74 SAME	75	76		5000	<u> </u>	
ITY	<u>100 W. W</u>		STATE				ZIP		••••	0201	1	ACT.	1	· ·	,	-7.										
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AB		SAMPL	.ing		NO. OF	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) (	TPH (	BTEX / MTBE (8260) or	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196	Air - VOCs (TO-14A)	Air - TPH (g) [TO-3]	Metro		
SE NLY	SAMPLE ID	DATE	TIME		CONT.	5	Pr	Ĕ	d L	<u> </u>	ይ	BT	X	ð	Ē	ŝ	a B	8	£	12	රි	Air	Air	Ĕ		neerospida
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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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Calscience Environmental	WORK ORDER #:	13-04	- [] [	172
Aaboratories, Inc.	<b>IPLE RECEIPT FOR</b>	RM c	ooler	of
CLIENT: PARSONG			04 / 2	·
TEMPERATURE: Thermometer ID: SC         Temperature       2.3       °C - 0.2         Sample(s) outside temperature criteria	°C (CF) = <u></u> °C			
☐ Sample(s) outside temperature criteria	a but received on ice/chilled on same da	y of samplir	ıg.	
□ Received at ambient temperature,	placed on ice for transport by Co	urier.		11.
Ambient Temperature:  Air  F	ilter		Initia	1: <u> </u>
	No (Not Intact)	□ N/A	lnitia Initia	al: <u>A//</u> al: <u>A</u>
SAMPLE CONDITION:		ſes	No	N/A
Chain-Of-Custody (COC) document(s)	received with samples			
COC document(s) received complete	ontainers logged in based on sample labels.	¥ 4/224/13	X	- 1
🗌 No analysis requested. 🛛 Not relinquis	shed. 🔲 No date/time relinquished.			ntents
Sampler's name indicated on COC	· · · · · · · · · · · · · · · · · · ·			
Sample container label(s) consistent wi				
Sample container(s) intact and good co	ndition	×		
Proper containers and sufficient volume	e for analyses requested			
Analyses received within holding time		Z		
pH / Res. Chlorine / Diss. Sulfide / Diss	. Oxygen received within 24 hours			
Proper preservation noted on COC or s	ample container			
Unpreserved vials received for Volatile	s analysis			
Volatile analysis container(s) free of he	adspace			
Tedlar bag(s) free of condensation CONTAINER TYPE:				Z
Solid: □4ozCGJ □8ozCGJ □16oz	CGJ □Sleeve () □EnCores	s <sup>®</sup> □Terra(	$Cores^{\otimes}$	
Water: □VOA ☑VOAh □VOAna₂ □	125AGB □125AGBh □125AGBp		]1AGB <b>na</b> ₂	□1AGB <b>s</b>
□500AGB □500AGJ □500AGJs □	250AGB 250CGB 250CGBs	□1PB [	]1PBna [	□500PB
□250PB 250PBn □125PB □125F	Bznna □100PJ □100PJna <sub>2</sub> □			
Air: □Tedlar <sup>®</sup> □Canister Other: □_ Container: C: Clear A: Amber P: Plastic G: Glass J Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaO	: Jar B: Bottle Z: Ziploc/Resealable Bag E: Env	velope R	leviewed by	1: <u>P.C</u>

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# WORK ORDER NUMBER: 13-04-2011

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 04/30/2013 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.



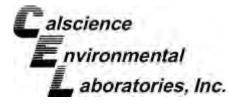
0 Lincoln Way, Garden Grove, CA 92841-1432 🔹 TEL: (714) 895-5494 🔹 FAX: (714) 894-7501 🔹 www.calscience.com

**Contents** 



Client Project Name:DFSP NorwalkWork Order Number:13-04-2011

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2	Client Sample Data	4 4
3	Quality Control Sample Data    3.1 MS/MSD and/or Duplicate      3.2 LCS/LCSD    3.2 LCS/LCSD	5 5 7
4	Sample Analysis Summary	8
5	Glossary of Terms and Qualifiers	9
6	Chain of Custody/Sample Receipt Form	10



**Work Order Narrative** 



# Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 04/29/2013. They were assigned to Work Order 13-04-2011.

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 an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

### Quality Control:

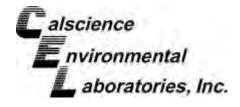
All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

### Additional Comments:

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.

### Subcontract Information:

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



Parsons Government Services, Inc.

Date Received:



04/29/13

100 West Walnut Street Pasadena, CA 91124-0002	Work Ore Preparat Method:				13-04-2011 EPA 3020A Total EPA 6020					
Project: DFSP Norwalk							Pa	ige 1 of 1		
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
Effluent		13-04-2011-1-A	04/29/13 10:45	Aqueous	ICP/MS 03	04/29/13	04/29/13 20:27	130429L04A		
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>					
Arsenic	0.0239	0.00100	1		mg/L					
Method Blank		096-06-003-4,099	N/A	Aqueous	ICP/MS 03	04/29/13	04/29/13 19:35	130429L04A		
Parameter	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>					
Arsenic	ND	0.00100	1		mg/L					

 $\label{eq:RL-Reporting Limit} RL - Reporting Limit \ , \qquad DF - Dilution Factor \ , \qquad Qual - Qualifiers$ 

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Parsons Government Services, Inc.	Date Received:	04/29/13
100 West Walnut Street	Work Order No:	13-04-2011
Pasadena, CA 91124-0002	Preparation:	EPA 3020A Total
	Method:	EPA 6020

#### Project DFSP Norwalk

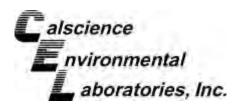
Quality Control Sample ID			Matrix	Ir	nstrument		Date epared	Date Analyzed		ISD Batch umber
13-04-1872-1		Aqueous ICP/MS (		CP/MS 03	04/2	29/13	04/29/13	130	429S04	
Parameter	SAMPLE CONC	<u>SPIKE</u> ADDED	<u>MS</u> CONC	<u>MS</u> <u>%REC</u>	MSD CONC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Arsenic	0.001575	0.1000	0.1073	106	0.1069	105	73-127	0	0-11	

Return to Contents

RPD - Relative Percent Difference, CL - Control Limit

MM

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 · FAX: (714) 894-7501



# **Quality Control - PDS / PDSD**



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

Date Received Work Order No: Preparation: Method: 04/29/13 13-04-2011 EPA 3020A Total EPA 6020

#### Project DFSP Norwalk

Quality Control Sample ID	Matrix	Instrum	ent	Date Prepared	Date Analyzed F	PDS/PDSD Batch Number		
13-04-1872-1	Aqueo	us ICP/M	S 03	04/29/13	04/29/13	130429S04		
Parameter	SAMPLE_CONC	SPIKE_ADDED	PDS_CONC	PDS %REC	<u>%REC CL</u>	<u>Qualifiers</u>		
Arsenic	0.001575	0.1000	0.1005	99	75-125			

RPD - Relative Percent Difference, CL - Control Limit

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# Calscience Environmental Quality Control - Laboratory Control Sample Laboratories, Inc.

Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:



N/A 13-04-2011 EPA 3020A Total EPA 6020

# Project: DFSP Norwalk

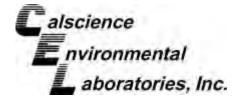
Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File	e ID	LCS Batch Number
096-06-003-4,099	Aqueous	ICP/MS 03	04/29/13	130429-L-04_	_128.icp	130429L04A
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec Cl</u>	Qualifiers
Arsenic		0.1000	0.09993	100	80-120	

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RPD - Relative Percent Difference, CL - Control Limit

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7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501



# Sample Analysis Summary Report



### WORK ORDER #: <u>13-04-2011</u>

Lab Sample Number	Client Sample ID	Method	Extraction	Date/Time Analyzed	Chemist ID	Instrument	Analytical Location
1-A	Effluent	EPA 6020	EPA 3020A T	04/29/2013 20:27	598	ICP/MS 03	1

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Return t

Location	Description
1	7440 Lincoln Way, Garden Grove, CA 92841



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# **Glossary of Terms and Qualifiers**



#### Work Order Number: 13-04-2011

Qualifier	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 was reported without further 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 matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
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 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).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
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.
Z	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.
	For any analysis identified as a "field" test with a holding time (HT) $z/z$ 15 minutes where the sample is

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

	Calscience Environmental Laboratories, Inc.							1C.									(	СНА	AIN	OF	CU	ST(	DY	RE	COP	۶D
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		1		1	NO.	serv	paved	Filter	H(g)	(p)H	п С6.		/ MT	(826	enate	5035	s (82	ides	(808	0 8270	letals	□ 7196	sen	010		
LAB USE ONLY	SAMPLE ID	DATE		MATRIX	OF CONT.	Unpreserved	Preserved	Field Filtered	(g)HdT 🗆	П ТРН(d) П DRO	TPH [	ТРН_	BTEX / MTBE	VOCs (8260)	Oxygenates (8260)	Prep (5035) 🗆 En	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs	T22 Metals	Cr(VI)	Ac	Ĭ		
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	Effluent Surge Tank	4-29-13	1045	GW			×		<u> </u>														×			
2	Surge Tank		1050	GW			×						[ 											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.

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Calscience Environmental	WORK ORDER #:	13-04	-20	77
Laboratories, Inc.			. /	- 1
SAMPLE	RECEIPT FOR		ooler	of
CLIENT: PARSONS	_	DATE:	04/29	/13
TEMPERATURE: Thermometer ID: SC1 (Criteria	a: 0.0 °C – 6.0 °C. not frozen	except sed	iment/tissue)	
Temperature°C - 0.2°C (CF)			Sample	
□ Sample(s) outside temperature criteria (PM/APM				
<ul> <li>Sample(s) outside temperature criteria but receiv</li> </ul>		av of samplin	n	
Received at ambient temperature, placed or			·9•	
	The for transport by Co	uner.	Initial: _(	An
Ambient Temperature:  Air  Filter				
CUSTODY SEALS INTACT:				
□ Cooler □ □ No (Not I	ntact) DNot Present	□ N/A	Initial:	An
□ Sample □ □ No (Not I			Initial:	<u>p.C</u>
	· · · · · · · · · · · · · · · · · · ·			
SAMPLE CONDITION:		Yes	No	N/A
Chain-Of-Custody (COC) document(s) received v		•		
COC document(s) received complete		$\square$		
Collection date/time, matrix, and/or # of containers log	ged in based on sample labels.			
□ No analysis requested. □ Not relinquished. □		•		
Sampler's name indicated on COC				
Sample container label(s) consistent with COC				
Sample container(s) intact and good condition		1		
Proper containers and sufficient volume for analy				
Analyses received within holding time	·····	Ø		
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen		1		Ø
Proper preservation noted on COC or sample co	ntainer			□ ·
Unpreserved vials received for Volatiles analysis			•	
Volatile analysis container(s) free of headspace				
Tedlar bag(s) free of condensation				Ø
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □S				
Water: □VOA □VOAh □VOAna <sub>2</sub> □125AGB	□125AGBh □125AGBp	□1AGB □	]1AGB <b>na₂</b> □1	IAGB <b>s</b>
□500AGB □500AGJ □500AGJs □250AGB	□250CGB □250CGBs	□1PB □	]1PB <b>na</b> □50	DOPB
□250PB 🗹 250PBn □125PB □125PBznna □				1
Air: Tedlar <sup>®</sup> Canister Other: Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s:	Z: Ziploc/Resealable Bag E: Env	velope R	Checked by: eviewed by: Scanned by: _	122

SOP T100\_090 (11/20/12)

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# WORK ORDER NUMBER: 13-06-0658

The difference is service



AIR SOIL WATER MARINE CHEMISTRY

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

Ranjit K. F. Clarke

Approved for release on 06/19/2013 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.



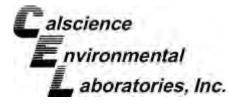
0 Lincoln Way, Garden Grove, CA 92841-1432 🔹 TEL: (714) 895-5494 🔹 FAX: (714) 894-7501 🔹 www.calscience.com

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**Work Order Narrative** 



# Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/11/2013. They were assigned to Work Order 13-06-0658.

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 an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

#### Quality Control:

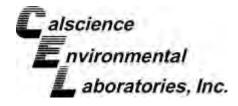
All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### Additional Comments:

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.

#### Subcontract Information:

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



Sonebac H

Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:

# 06/11/13 13-06-0658 EPA 3510C EPA 8015B (M)

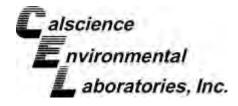
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Project: DFSP Norwalk - Quarterly

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFFLUENT		13-06-0658-1-I	06/11/13 08:30	Aqueous	GC 47	06/12/13	06/12/13 20:51	130612B11
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
TPH as Diesel	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
n-Octacosane	83	68-140						
Method Blank		099-15-282-105	N/A	Aqueous	GC 47	06/12/13	06/12/13 19:18	130612B11
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
TPH as Diesel	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
n-Octacosane	78	68-140						

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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:

# 06/11/13 13-06-0658 EPA 5030C EPA 8015B (M)

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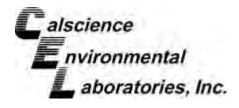
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Project: DFSP Norwalk - Quarterly

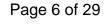
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFFLUENT		13-06-0658-1-E	06/11/13 08:30	Aqueous	GC 25	06/12/13	06/12/13 17:46	130612B02
Parameter	Result	<u>RL</u>	DF	Qual	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	85	38-134						
Method Blank		099-15-704-416	N/A	Aqueous	GC 25	06/12/13	06/12/13 11:03	130612B02
Parameter	Result	<u>RL</u>	DF	Qual	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	86	38-134						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Date Received:



06/11/13

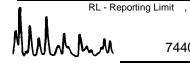


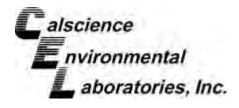
Parsons Government Services, Inc. 100 West V 1/01 101 Pasadena

100 West Walnut Street					Work Order No:					13-06-0658				
Pasadena, CA 91124-0002						Prepara	ation:				EPA	50300	2	
				Method:								EPA 8260B		
					Units:	•				<b>_</b> .,	ug/			
					Units.					_	-			
Project: DFSP Norwalk	< - Quarte	rly									Page	e 1 of :	2	
Client Sample Number				Sample		Date/Time Collected	Matrix	Instrument	Dat Prepa		ate/Time nalyzed	QC Bat	ch ID	
			Number				00/110 00		•	6/13/13	400040	1.00		
EFFLUENT			13-06-0658-1-B			06/11/13 Aqueous 08:30		GC/MS QU	C/MS QQ 06/12/		04:07		130612L03	
Comment(s): -Results were	evaluated to t	he MDL (D	L), conc	entratio	ns >= to	the MDL (DL	) but < RL (I	_OQ), if foun	d, are qual	ified with	a "J" flag	g.		
Parameter	<u>Result</u>	<u>RL</u>	<u>MDL</u>	DF	Qual	Parameter			<u>Result</u>	<u>RL</u>	MDL	DF	<u>Qual</u>	
Acetone	ND	20	10	1		c-1,3-Dichl	propropene		ND	0.50	0.25	1		
Benzene	ND	0.50	0.14	1		t-1,3-Dichlo	ropropene		ND	0.50	0.25	1		
Bromobenzene	ND	1.0	0.30	1		Ethylbenze	ne		ND	0.50	0.14	1		
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone			ND	10	2.1	1		
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbe	nzene		ND	1.0	0.58	1		
Bromoform	ND	1.0	0.50	1		p-Isopropyl	oluene		ND	1.0	0.16	1		
Bromomethane	ND	5.0	3.9	1		Methylene (	Chloride		ND	5.0	0.64	1		
2-Butanone	ND	10	2.2	1		4-Methyl-2-	Pentanone		ND	10	4.4	1		
n-Butylbenzene	ND	1.0	0.23	1		Naphthalen	е		ND	10	2.5	1		
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylber	nzene		ND	1.0	0.17	1		
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1				
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tet	ND	1.0	0.40	1				
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tet	ND	1.0	0.41	1				
Chlorobenzene	ND	1.0	0.17	1		Tetrachloro	ND	1.0	0.39	1				
Chloroethane	ND	5.0	2.3	1					ND	0.50	0.24	1		
Chloroform	ND	1.0	0.46	1					ND	1.0	0.51	1		
Chloromethane	ND	5.0	1.8	1					ND	1.0	0.50	1		
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trich			ND	1.0	0.30	1		
4-Chlorotoluene	ND	1.0	0.13	1				ifluoroethane		10	0.78	1		
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trich			ND	1.0	0.38	1		
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroeth			ND	1.0	0.37	1		
1,2-Dibromoethane	ND	1.0	0.36	1			oromethane		ND	10	1.7	1		
Dibromomethane	ND	1.0	0.46	1			oropropane		ND	5.0	0.64	1		
1.2-Dichlorobenzene	ND	1.0	0.46	1			thylbenzene		ND	1.0	0.36	1		
1,3-Dichlorobenzene	ND	1.0	0.40	1			thylbenzene		ND	1.0	0.30	1		
1,4-Dichlorobenzene	ND	1.0	0.40	1		Vinyl Aceta			ND	1.0	2.8	1		
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chlori			ND	0.50	0.30	1		
1,1-Dichloroethane	ND	1.0	0.40	1		p/m-Xylene	uc		ND	0.50	0.30	1		
1,2-Dichloroethane	ND	0.50	0.28	1		o-Xylene			ND	0.50	0.24	1		
1,1-Dichloroethene	ND	1.0	0.24	1		•	tyl Ether (M		ND	0.50	0.23			
	ND	1.0	0.43	1		-			ND	10	4.6	1		
c-1,2-Dichloroethene						•	Icohol (TBA	·				1		
t-1,2-Dichloroethene	ND	1.0	0.37	1			Ether (DIPE	,	ND	2.0	0.33	1		
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE) Tert-Amyl-Methyl Ether (TAME)			ND	2.0	0.44	1		
1,3-Dichloropropane	ND	1.0	0.30	1		-	vietnyi Ether	(TANE)	ND	2.0	0.22	1		
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol			ND	100	50	1		
1,1-Dichloropropene	ND	1.0	0.46	1						-				
Surrogates:	<u>REC (%)</u>	Control Limits	<u>Qı</u>	<u>ial</u>		Surrogates:			<u>REC (%)</u>	<u>Contro</u> Limits	<u>i C</u>	Qual		
1,4-Bromofluorobenzene	87	80-120				Dibromoflu	oromethane		107	80-126	6			
1,2-Dichloroethane-d4	117	80-134				Toluene-d8			106	80-120				
1,2-DIGHOIDEUIdHE-04		00-104				1 Uluelle-08			100	00-120	,			

DF - Dilution Factor

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Date Received:



06/11/13

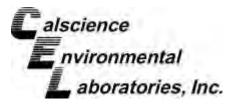


Parsons Government Services, Inc. 100 West Wal 101 Pasadena,

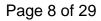
100 West Walnut Stree	et					Work C	order No:				13-0	6-0658	8
Pasadena, CA 91124-0	002					Prepara	ation.					50300	
	002					•							
						Method					EPA	8260E	
						Units:						ug/l	
Project: DFSP Norwalk	<ul> <li>Quarte</li> </ul>	erly									Page	e 2 of 2	2
-			Lab S	Sample		Date/Time			Date	e Da	te/Time		
Client Sample Number				mber		Collected	Matrix	Instrument	Prepa		nalyzed	QC Bat	ch ID
Method Blank			099-1	4-001-1	1,196	N/A	Aqueous	GC/MS QQ	06/12/		6/12/13 22:27	130612	L03
Comment(s): -Results were	evaluated to	the MDL (D	L), conc	entratio	ns >= to	the MDL (DL	.) but < RL (I	_OQ), if found	d, are qual	ified with	a "J" flaç	j.	
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	Qual	Parameter			Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>
Acetone	ND	20	10	1		c-1,3-Dichl	oropropene		ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichlo	propropene		ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenze	ne		ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanon	Э		ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbe	enzene		ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyl	toluene		ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene			ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-	Pentanone		ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthaler	е		ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbe	nzene		ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene			ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tet	rachloroetha	ne	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tet	rachloroetha	ne	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloro	ethene		ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene			ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trich	lorobenzene		ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trich	lorobenzene		ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trich	loroethane		ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trich	loro-1,2,2-Tr	ifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trich			ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroet	nene		ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichloroflu	oromethane		ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1.2.3-Trich	loropropane		ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1			thylbenzene		ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1			thylbenzene		ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Aceta	te		ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chlor			ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene			ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene			ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		•	ityl Ether (M	FBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1			Alcohol (TBA		ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		•	Ether (DIPE	·	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1			I Ether (ETE	,	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1			Methyl Ether	,	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	,	. /	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1								-	
Surrogates:	<u>REC (%</u>	) <u>Control</u> Limits	<u>Qı</u>	ual		Surrogates	<u>.</u>		<u>REC (%)</u>	<u>Control</u> Limits	<u> </u>	<u>)ual</u>	
1.4 Dromofluorobaras	87					Dibranat			108				
1,4-Bromofluorobenzene		80-120					oromethane			80-126			
1,2-Dichloroethane-d4	113	80-134				Toluene-d8			105	80-120			



DF - Dilution Factor RL - Reporting Limit ,



**Analytical Report** 

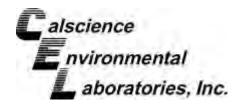


Soute IN ACCORDANCE

Parsons Gover 100 West Walr Pasadena, CA	nut Street			Date R Work 0 Prepar Method	06/11/13 13-06-0658 EPA 3020A Total EPA 6020					
Project: DFSP	Norwalk - Qu	uarterly			Units:				Page	mg/L e 1 of 1
Client Sample Numbe	r		Lab Sam Numbe	•	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFFLUENT			13-06-06	658-1-J	06/11/13 08:30	Aqueous	ICP/MS 03	06/12/13	06/13/13 14:12	130612L03
<u>Parameter</u> Arsenic Copper Lead	<u>Result</u> ND 0.00490 ND	<u>RL</u> 0.00100 0.00100 0.00100	<u>DF</u> 1 1 1	Qual	<u>Parameter</u> Selenium Zinc		<u>Result</u> ND 0.00774	<u>RL</u> 0.00 0.00		Qual
Method Blank			096-06-0	003-4,128	N/A	Aqueous	ICP/MS 03	06/12/13	06/13/13 13:31	130612L03
<u>Parameter</u> Arsenic Copper Lead	<u>Result</u> ND ND ND	<u>RL</u> 0.00100 0.00100 0.00100	<u>DF</u> 1 1 1	Qual	<u>Parameter</u> Selenium Zinc		<u>Result</u> ND ND	<u>RL</u> 0.00 0.00	•	Qual

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Page 9 of 29

Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No:

Page 1 of 1

### Project: DFSP Norwalk - Quarterly

Lab Sample Number Date Client Sample Number Collected Matrix								
EFFLUENT			13-06-065	8-1	06/11/13	Aqueous		
Parameter	<u>Results</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> Analyzed	Method
Phenolics, Total	ND	0.10	1		mg/L	06/19/13	06/19/13	EPA 420.1
Turbidity	0.090	0.050	1		NTU	N/A	06/11/13	SM 2130 B
Solids, Total Suspended	ND	1.0	1		mg/L	06/12/13	06/12/13	SM 2540 D
Solids, Settleable	ND	0.10	1		mL/L/hr	N/A	06/12/13	SM 2540 F
рН	7.09	0.01	1		pH units	N/A	06/11/13	SM 4500 H+ B
Sulfide, Total	ND	0.050	1		mg/L	06/11/13	06/11/13	SM 4500 S2 - D
Chlorine, Total Residual	ND	0.10	1		mg/L	N/A	06/11/13	SM 4500-CI F
Oil and Grease	ND	1.0	1		mg/L	06/12/13	06/12/13	SM 5520 B
MBAS	ND	0.10	1		mg/L	06/12/13	06/12/13	SM 5540C
Method Blank					N/A	Aqueous		
Parameter	<u>Results</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> Analyzed	Method
Phenolics, Total	ND	0.10	1		mg/L	06/19/13	06/19/13	EPA 420.1
Solids, Total Suspended	ND	1.0	1		mg/L	06/12/13	06/12/13	SM 2540 D
Sulfide, Total	ND	0.050	1		mg/L	06/11/13	06/11/13	SM 4500 S2 - D
Chlorine, Total Residual	ND	0.10	1		mg/L	N/A	06/11/13	SM 4500-CI F
Oil and Grease	ND	1.0	1		mg/L	06/12/13	06/12/13	SM 5520 B
MBAS	ND	0.10	1		mg/L	06/12/13	06/12/13	SM 5540C

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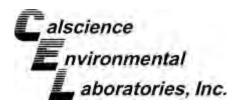
Parsons Government Services, Inc.	Date Received:	06/11/13
100 West Walnut Street	Work Order No:	13-06-0658
Pasadena, CA 91124-0002	Preparation:	EPA 3020A Total
	Method:	EPA 6020

### Project DFSP Norwalk - Quarterly

Quality Control Sample ID		Matrix	rix Instrument		Date Prepared		Date Analyzed	MS/MSD Batch Number		
EFFLUENT	r		Aqueous ICP/MS 03		CP/MS 03	06/12/13		06/13/13	130612S03	
Parameter	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> ADDED	<u>MS</u> <u>CONC</u>	<u>MS</u> %REC	MSD CONC	<u>MSD</u> <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Arsenic	ND	0.1000	0.1044	104	0.1046	105	73-127	0	0-11	
Copper	0.004897	0.1000	0.09884	94	0.09998	95	72-108	1	0-10	
Lead	ND	0.1000	0.1128	113	0.1135	113	79-121	1	0-10	
Selenium	ND	0.1000	0.09197	92	0.09099	91	59-125	1	0-12	
Zinc	0.007744	0.1000	0.09021	82	0.08838	81	43-145	2	0-39	

RPD - Relative Percent Difference, CL - Control Limit

MM



### **Quality Control - PDS / PDSD**



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

Date Received Work Order No: Preparation: Method: 06/11/13 13-06-0658 EPA 3020A Total EPA 6020

### Project DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix	k Instrur	nent	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
EFFLUENT	Aqueo	ous ICP/N	IS 03	06/12/13	06/13/13	130612S03
Parameter_	SAMPLE_CONC	SPIKE_ADDED	PDS_CONC	PDS %REC	%REC CL	Qualifiers
Arsenic	ND	0.1000	0.1035	103	75-125	
Copper	0.004897	0.1000	0.09984	95	75-125	
Lead	ND	0.1000	0.1071	107	75-125	
Selenium	ND	0.1000	0.08670	87	75-125	
Zinc	0.007744	0.1000	0.09200	84	75-125	



RPD - Relative Percent Difference, CL - Control Limit

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ACCAE



Parsons Government Services, Inc.	Date Received:	06/11/13
100 West Walnut Street	Work Order No:	13-06-0658
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	SM 5540C

### Project DFSP Norwalk - Quarterly

Quality Control Sample ID		Matrix Instrument		Date Prepared		Date Analyzed	MS/MSD Batch Number			
13-06-0717-1			Aqueous UV 8		06/12/13		06/12/13	D0612SURS1		
Parameter	SAMPLE CONC	<u>SPIKE</u> ADDED	<u>MS</u> CONC	<u>MS</u> <u>%REC</u>	MSD CONC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
MBAS	ND	1.0	0.95	95	0.94	94	70-130	1	0-25	



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ACCAE



Persona Covernment Convision Inc.	Data Dassiwadi	00/11/12
Parsons Government Services, Inc.	Date Received:	06/11/13
100 West Walnut Street	Work Order No:	13-06-0658
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	SM 5520 B

### Project DFSP Norwalk - Quarterly

Quality Control Sample ID		Matrix Instrument		Date Prepared		Date Analyzed	MS/MSD Batch Number			
13-06-0480-1			Aqueous N/A		06/12/13		06/12/13	D0612OGS1		
Parameter	SAMPLE CONC	<u>SPIKE</u> ADDED	<u>MS</u> CONC	<u>MS</u> <u>%REC</u>	MSD CONC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Oil and Grease	31.7	40.0	70.3	96	71.3	99	80-120	1	0-25	



RPD - Relative Percent Difference, CL - Control Limit

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N ACCORD

4

ACCAE



Parsons Government Services, Inc.	Date Received:	06/11/13
100 West Walnut Street	Work Order No:	13-06-0658
Pasadena, CA 91124-0002	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)

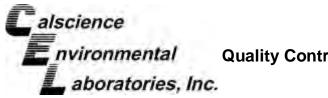
### Project DFSP Norwalk - Quarterly

Quality Control Sample ID			Matrix	I	nstrument		Date epared	Date Analyzed		ISD Batch Jumber
13-06-0657-1			Aqueou	us C	GC 25	06/	12/13	06/12/13	130	612S01
Parameter	SAMPLE CONC	<u>SPIKE</u> ADDED	MS CONC	<u>MS</u> <u>%REC</u>	<u>MSD</u> CONC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	ND	2000	1989	99	1936	97	68-122	3	0-18	



RPD - Relative Percent Difference, CL - Control Limit

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

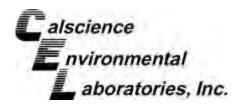
Date Received:	06/11/13
Work Order No:	13-06-0658
Preparation:	EPA 5030C
Method:	EPA 8260B

### Project DFSP Norwalk - Quarterly

Quality Control Sample ID			Matrix	I	nstrument		Date epared	Date Analyzed		ISD Batch umber
13-06-0605-5			Aqueou	is (	GC/MS QQ	06/	12/13	06/12/13	130	612S03
Parameter	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> ADDED	MS CONC	<u>MS</u> %REC	MSD CONC	<u>MSD</u> <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	ND	50.00	51.72	103	54.25	109	78-120	5	0-20	
Carbon Tetrachloride	ND	50.00	57.92	116	61.51	123	67-139	6	0-20	
Chlorobenzene	ND	50.00	50.84	102	51.39	103	80-120	1	0-20	
1,2-Dibromoethane	ND	50.00	56.82	114	59.92	120	80-123	5	0-20	
1,2-Dichlorobenzene	ND	50.00	49.20	98	51.61	103	76-120	5	0-20	
1,2-Dichloroethane	ND	50.00	53.67	107	56.40	113	76-130	5	0-20	
1,1-Dichloroethene	ND	50.00	57.38	115	63.26	127	70-130	10	0-27	
Ethylbenzene	ND	50.00	52.37	105	52.35	105	73-127	0	0-20	
Toluene	ND	50.00	49.67	99	47.51	95	72-126	4	0-20	
Trichloroethene	ND	50.00	51.18	102	53.30	107	74-122	4	0-20	
Vinyl Chloride	ND	50.00	55.97	112	59.01	118	65-131	5	0-24	
p/m-Xylene	ND	100.0	105.8	106	109.1	109	70-130	3	0-30	
o-Xylene	ND	50.00	53.31	107	55.87	112	70-130	5	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	56.43	113	61.00	122	69-123	8	0-20	
Tert-Butyl Alcohol (TBA)	ND	250.0	252.7	101	264.9	106	65-131	5	0-22	
Diisopropyl Ether (DIPE)	ND	50.00	59.01	118	62.08	124	68-128	5	0-22	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	54.51	109	58.25	117	69-123	7	0-21	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	49.05	98	51.35	103	70-124	5	0-20	
Ethanol	ND	500.0	570.7	114	560.3	112	41-155	2	0-35	

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7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 · FAX: (714) 894-7501





Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: N/A 13-06-0658

Project: DFSP Norwalk - Quarterly

Matrix: Aqueous or Solic	i							
Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Chlorine, Total Residual	SM 4500-CI F	EFFLUENT	06/11/13	ND	ND	NA	0-25	
Turbidity	SM 2130 B	EFFLUENT	06/11/13	0.090	0.090	0	0-25	
рН	SM 4500 H+ B	EFFLUENT	06/11/13	7.09	7.11	0	0-25	
Sulfide, Total	SM 4500 S2 - D	13-06-0698-5	06/11/13	ND	ND	NA	0-25	
Solids, Total Suspended	SM 2540 D	13-06-0674-1	06/12/13	138	134	3	0-20	

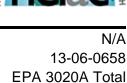
RPD - Relative Percent Difference, CL - Control Limit

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## Calscience Environmental Quality Control - Laboratory Control Sample Laboratories, Inc.

Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:



EPA 6020

### Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File	e ID LO	LCS Batch Number	
096-06-003-4,128	Aqueous	ICP/MS 03	06/13/13	130312-L-03_	_053.icp	130612L03	
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec CL</u>	Qualifiers	
Arsenic		0.1000	0.09709	97	80-120		
Copper		0.1000	0.1007	101	80-120		
Lead		0.1000	0.09526	95	80-120		
Selenium		0.1000	0.09486	95	80-120		
Zinc		0.1000	0.1016	102	80-120		

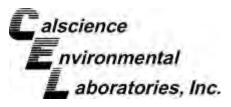


RPD - Relative Percent Difference, CL - Control Limit

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N/A

N/A





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

Date Received: Work Order No: 13-06-0658 Preparation: Method: EPA 420.1

### Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix		Instrument		ate pared	Date Analyzed	ł	LCS/LCSD Batch Number	
099-05-085-2,659	Aqueous		UV 9	06/	19/13	06/19/13		D0619PHEL1	
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Phenolics, Total	0.50	0.44	88	0.41	82	80-120	7	0-20	



RPD - Relative Percent Difference, CL - Control Limit

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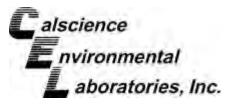
Parsons Government Services, Inc.	Date Received:	N/A
100 West Walnut Street	Work Order No:	13-06-0658
Pasadena, CA 91124-0002	Preparation:	N/A
	Method:	SM 5540C

### Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-05-093-2,521	Aqueous	UV 8	06/12/13	NONE	D0612SURL1
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec CL</u> Qualifiers
MBAS		1.0	0.95	95	80-120

RPD - Relative Percent Difference, CL - Control Limit

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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:

N/A 13-06-0658 N/A SM 4500 S2 - D

### Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix	I	nstrument		ate pared	Date Analyzed	1	LCS/LCSD Batch Number	
099-15-853-61	Aqueous		N/A	06/ <sup>,</sup>	11/13	06/11/13		D0611SL2	
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Sulfide, Total	1.0	0.85	85	0.85	85	80-120	0	0-20	

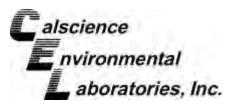
Return to Contents

RPD - Relative Percent Difference, CL - Control Limit

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N/A

N/A





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

Date Received: Work Order No: 13-06-0658 Preparation: Method: SM 5520 B

### Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix		Instrument		ate pared	Date Analyzed	ł	LCS/LCSD Batch Number	
099-05-081-2,909	Aqueous		N/A	06/ <sup>.</sup>	12/13	06/12/13		D0612OGL1	
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Oil and Grease	40.0	38.4	96	39.1	98	80-120	2	0-20	

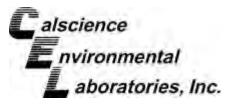


RPD - Relative Percent Difference, CL - Control Limit

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N/A

N/A





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

Date Received: Work Order No: 13-06-0658 Preparation: Method: SM 2540 D

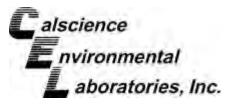
### Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix		Instrument		ate pared	Date Analyzed	Ł	LCS/LCSD Batch Number	
099-09-010-6,323 Aqueou			N/A	06/ <sup>.</sup>	12/13	06/12/13		D0612TSSL1	
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Solids, Total Suspended	100	93	93	90	90	80-120	3	0-20	



RPD - Relative Percent Difference, CL - Control Limit

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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method: N/A 13-06-0658 EPA 3510C EPA 8015B (M)

### Project: DFSP Norwalk - Quarterly

Quality Control Sample ID	Matrix		Instrument		ate pared	Date Analyzed	Ł	LCS/LCSD Batch Number	
099-15-282-105	Aqueous	Aqueous		06/ <sup>.</sup>	12/13	06/12/13		130612B11	
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
TPH as Diesel	4000	3994	100	3929	98	75-117	2	0-13	

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

Date Received: Work Order No: Preparation: Method:



N/A 13-06-0658 EPA 5030C EPA 8015B (M)

### Project: DFSP Norwalk - Quarterly

Quality Control Sample ID Matrix		Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-15-704-416	Aqueous	GC 25	06/12/13	13061204	130612B02
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec CL</u> Qualifiers
TPH as Gasoline		2000	1944	97	78-120

RPD - Relative Percent Difference, CL - Control Limit

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IN ACCORDA



Parsons Government Services, Inc.	Date Received:	N/A
100 West Walnut Street	Work Order No:	13-06-0658
Pasadena, CA 91124-0002	Preparation:	EPA 5030C
	Method:	EPA 8260B

### Project: DFSP Norwalk - Quarterly

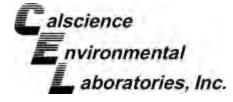
Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab	File ID	LCS Batch Number		
099-14-001-11,196	Aqueous	GC/MS QQ	06/12/13	12JUN	028.rr	130612L03		
Parameter	Conc Added	Conc Recovered	LCS %Rec	<u>%Rec CL</u>	ME CL	Qualifiers		
Benzene	50.00	50.50	101	80-120	73-127			
Carbon Tetrachloride	50.00	56.39	113	66-138	54-150			
Chlorobenzene	50.00	48.10	96	80-120	73-127			
1,2-Dibromoethane	50.00	56.38	113	80-120	73-127			
1,2-Dichlorobenzene	50.00	50.45	101	80-120	73-127			
1,2-Dichloroethane	50.00	52.06	104	80-129	72-137			
1,1-Dichloroethene	50.00	58.29	117	71-131	61-141			
Ethylbenzene	50.00	50.59	101	80-123	73-130			
Toluene	50.00	46.91	94	79-121	72-128			
Trichloroethene	50.00	49.41	99	80-120	73-127			
Vinyl Chloride	50.00	57.34	115	70-136	59-147			
p/m-Xylene	100.0	103.3	103	75-125	67-133			
o-Xylene	50.00	52.39	105	75-125	67-133			
Methyl-t-Butyl Ether (MTBE)	50.00	56.66	113	72-126	63-135			
Tert-Butyl Alcohol (TBA)	250.0	228.5	91	71-125	62-134			
Diisopropyl Ether (DIPE)	50.00	57.06	114	69-129	59-139			
Ethyl-t-Butyl Ether (ETBE)	50.00	53.40	107	69-129	59-139			
Tert-Amyl-Methyl Ether (TAME)	50.00	47.66	95	67-133	56-144			
Ethanol	500.0	547.0	109	47-155	29-173			
Total number of LCS compounds	s: 19							

Total number of ME compounds: 0 Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference, CL - Control Limit

hin



### Sample Analysis Summary Report



### WORK ORDER #: <u>13-06-0658</u>

Lab Sample Number			Extraction	Date/Time Analyzed	Chemist ID	Instrument	Analytical Location	
1-G	EFFLUENT	SM 4500-CI F	N/A	06/11/2013 17:05	688	BUR16	1	
1-H	EFFLUENT	SM 5520 B	N/A	06/12/2013 18:00	691	N/A	1	
1-N	EFFLUENT	EPA 420.1	N/A	06/19/2013 15:10	686	UV 9	1	
1-L	EFFLUENT	SM 2540 F	N/A	06/12/2013 19:20	691	N/A	1	
1-G	EFFLUENT	SM 5540C	N/A	06/12/2013 15:03	687	UV 8	1	
1-K	EFFLUENT	SM 2540 D	N/A	06/12/2013 13:40	722	N/A	1	
1-G	EFFLUENT	SM 2130 B	N/A	06/11/2013 20:18	650	TUR 3	1	
1-J	EFFLUENT	EPA 6020	EPA 3020A T	06/13/2013 14:12	598	ICP/MS 03	1	
1-B	EFFLUENT	EPA 8260B	EPA 5030C	06/13/2013 4:07	510	GC/MS QQ	2	
1-E	EFFLUENT	EPA 8015B (M)	EPA 5030C	06/12/2013 17:46	797	GC 25	2	
1-G	EFFLUENT	SM 4500 H+ B	N/A	06/11/2013 19:12	688	PH 1	1	
1-I	EFFLUENT	EPA 8015B (M)	EPA 3510C	06/12/2013 20:51	682	GC 47	1	
1-M	EFFLUENT	SM 4500 S2 - D	N/A	06/11/2013 20:00	687	N/A	1	

Location	Description
1	7440 Lincoln Way, Garden Grove, CA 92841
2	7445 Lampson Avenue, Garden Grove, CA 92841



### **Glossary of Terms and Qualifiers**



### Work Order Number: 13-06-0658

Qualifier	Definition
Qualifier *	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 was reported without further 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 matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
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 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).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
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.
Z	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.
	For any analysis identified as a "field" test with a holding time (HT) = 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample</td

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.

analysis does not meet Calscience's internal HT, results will be appropriately qualified.

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		TEL: (714) 895-5494 . FA)	(: (714) 894	-7501										(41.07.11)		P7	AGE:				
	TORY CLIENT:																		P.O. NO.:		
	************	<u></u>						FSP			( - Q	uart	erly						QUOTE NO.:		
CITY:	W. Walnut Street							MA	ARV	11	UC.	۶۶									
	sadena, CA 91124			E-MAIL			SAM	PLER(	S): (SIC	SNATU	RE)	AL	m)	٢	91	٨	A	0			
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										8015B(M))	_	Se,F	2540				а F)				
											8260B)	,Cu,	(SM	40F)	S-2)	(	500 (				
							(80B)	520B)		TPH-Diesel/Gas (EPA	A 82	): As	Total Suspended Solids (SM 2540D)	Settleable Solids (SM 2540F)	Total Sulfides (SM 4500 S-2)	Phenolics (EPA 420.1)	Residual Chlorine (SM 4500 Cl F)	10			
						NO. OF	Turbidity (SM 2130B)	SM 55	-B)	as (	Oxys(EPA	6020:	ed S(	ds (S	7 WS)	PA 4	'ine (	MBAS (SM 5540C)			
			SAM	PLING		CONT.	(SN	se (	H 00	sel/G	0xys	ΕPA	pend	Soli	ides	s (E	Chloi	SM 5			
LAB	SAMPLE ID	LOCATION/ DESCRIPTION	DATE	TIME	MAT- RIX		idity	Grea	M 45	Die	+	l) sli	Sus	eable	Sulf	nolic	dual	NS (S			
USE				TIME			d n b	Oil & Grease (SM 5520B)	pH (SM 4500 H+B)	TPH	vocs	Metals (EPA	Total	Settle	Total	Phei	Resi	MB/	Com	nments	
ONLY	EFFLUENT	GUTS	6.11.13	0830	w	14	x	x	x	x	х	Х	x	х	Х	х	х	х			
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Revie	sed: 08/28/08																				

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Calscience	
	ORK ORDER #: <b>13-06-</b> 0658
SAMPLE RE	CEIPT FORM Cooler <u>/</u> of /
CLIENT: PARSON'S	DATE: 06 / 1/ / 13
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.	
Temperature • • •C - 0.2 °C (CF) =	<u> </u>
□ Sample(s) outside temperature criteria (PM/APM cor	
☐ Sample(s) outside temperature criteria but received o	on ice/chilled on same day of sampling.
☐ Received at ambient temperature, placed on ice	e for transport by Courier.
Ambient Temperature:	Initial: Ay
CUSTODY SEALS INTACT:	
□ Cooler □ □ No (Not Intac	t) 🖉 Not Present 🗆 N/A Initial: _ 🦟
□ Sample □ □ No (Not Intac	t) Not Present Initial:
SAMPLE CONDITION:	Yes No N/A
Chain-Of-Custody (COC) document(s) received with	
COC document(s) received complete	
Collection date/time, matrix, and/or # of containers logged	
□ No analysis requested. □ Not relinquished. □ No d	and the second
Sampler's name indicated on COC	• /
Sample container label(s) consistent with COC	
Sample container(s) intact and good condition	
Proper containers and sufficient volume for analyses	• /
Analyses received within holding time	
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen rece Proper preservation noted on COC or sample contain	
<ul> <li>Unpreserved vials received for Volatiles analysis</li> <li>Volatile analysis container(s) free of headspace</li> </ul>	
Tedlar bag(s) free of condensation	
CONTAINER TYPE:	
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleev	
	25AGBh □125AGBp □1AGB □1AGBna₂ ☑1AGBs
□500AGB Ø500AGJ Ø500AGJs □250AGB □2	
□250PB 🖉 250PBnu□125PB 🗹 125PBznna □100	PJ 🗆 100 PJ na <sub>2</sub> 🗆 🗆 🗆
Air: Tedlar <sup>®</sup> Canister Other: Trip Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Z Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s: H <sub>2</sub> SO <sub>4</sub>	

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# WORK ORDER NUMBER: 13-06-1486

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 06/28/2013 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.



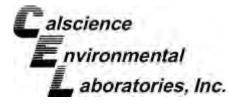
0 Lincoln Way, Garden Grove, CA 92841-1432 🔹 TEL: (714) 895-5494 🔹 FAX: (714) 894-7501 🔹 www.calscience.com

**Contents** 



Client Project Name: DFSP - Norwalk Work Order Number: 13-06-1486

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2	Client Sample Data	4 4
3	Quality Control Sample Data       3.1 MS/MSD and/or Duplicate         3.1 MS/MSD and/or Duplicate       3.2 LCS/LCSD	5 5 7
4	Sample Analysis Summary	8
5	Glossary of Terms and Qualifiers	9
6	Chain of Custody/Sample Receipt Form	10



**Work Order Narrative** 



### Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/21/2013. They were assigned to Work Order 13-06-1486.

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 an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

### Quality Control:

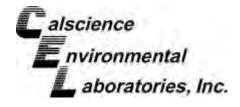
All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

### Additional Comments:

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.

### Subcontract Information:

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



Page 4 of 11



Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method:

### 06/21/13 13-06-1486 EPA 3020A Total EPA 6020

Page 1 of 1

Project:	DFSP -	Norwalk
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-								
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent		13-06-1486-1-A	06/21/13 11:40	Aqueous	ICP/MS 03	06/25/13	06/25/13 20:03	130625L04A
Parameter	Result	<u>RL</u>	DF	Qual	<u>Units</u>			
Arsenic	ND	0.00100	1		mg/L			
Method Blank		096-06-003-4,135	N/A	Aqueous	ICP/MS 03	06/25/13	06/25/13 19:19	130625L04A
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Arsenic	ND	0.00100	1		mg/L			

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Parsons Government Services, Inc. 100 West Walnut Street	Date Received: Work Order No:	06/21/13 13-06-1486
Pasadena, CA 91124-0002	Preparation:	EPA 3020A Total
	Method:	EPA 6020

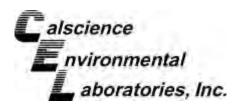
### Project DFSP - Norwalk

Quality Control Sample ID			Matrix	Ir	nstrument		Date epared	Date Analyzed		ISD Batch umber
13-06-1388-2			Aqueous	s IC	CP/MS 03	06/2	25/13	06/25/13	130	625S04
Parameter	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> ADDED	MS CONC	<u>MS</u> <u>%REC</u>	MSD CONC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Arsenic	0.004394	0.1000	0.1116	107	0.1116	107	73-127	0	0-11	

Return to Contents

RPD - Relative Percent Difference, CL - Control Limit

hM



### **Quality Control - PDS / PDSD**



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

Date Received Work Order No: Preparation: Method:

### 06/21/13 13-06-1486 EPA 3020A Total EPA 6020

### Project DFSP - Norwalk

Quality Control Sample ID	Matrix	Instrum	lent	Date I Prepared	Date Analyzed F	PDS/PDSD Batch Number
13-06-1388-2	Aqueo	us ICP/M	S 03	06/25/13	06/25/13	130625S04
Parameter	SAMPLE CONC	SPIKE_ADDED	PDS_CONC	PDS %REC	<u>%REC CL</u>	Qualifiers
Arsenic	0.004394	0.1000	0.1057	101	75-125	

RPD - Relative Percent Difference, CL - Control Limit

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## alscience nvironmental Quality Control - Laboratory Control Sample aboratories, Inc.

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

Date Received: Work Order No: Preparation: Method:



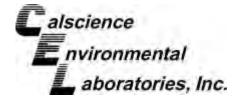
13-06-1486 EPA 3020A Total EPA 6020

### Project: DFSP - Norwalk

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File	e ID	LCS Batch Number
096-06-003-4,135	Aqueous	ICP/MS 03	06/25/13	130625-L-04_	_139.icp	130625L04A
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec Cl</u>	Qualifiers
Arsenic		0.1000	0.1025	103	80-120	

RPD - Relative Percent Difference, CL - Control Limit

hM



### Sample Analysis Summary Report



### WORK ORDER #: <u>13-06-1486</u>

Lab Sample Number	Client Sample ID	Method	Extraction	Date/Time Analyzed	Chemist ID	Instrument	Analytical Location
1-A	Effluent	EPA 6020	EPA 3020A T	06/25/2013 20:03	598	ICP/MS 03	1

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	tett

Location	Description
1	7440 Lincoln Way, Garden Grove, CA 92841



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### **Glossary of Terms and Qualifiers**



### Work Order Number: 13-06-1486

Qualifier	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 was reported without further 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 matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
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 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).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
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.
Z	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.
	For any analysis identified as a "field" test with a holding time (HT) = 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not most Calabianae's internal HT, results will be appropriately gualified.</td

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.

analysis does not meet Calscience's internal HT, results will be appropriately qualified.

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 ·

**Return to Contents** 

FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.											CHAIN OF CUSTODY RECORD															
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								WO # / LAB USE ONLY <b>13-06</b> - <b>1486</b> CLIENT PROJECT NAME / NUMBER:						P.O. NO.:					**********	1						
(714) 895-5494 (925) 689-9022 LABORATORY CLIENT: ADDRESS:								DFSP- Norwalk PROJECT CONTACT: Mary Lucas / Cindy Zick						747577-05000												
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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.

06/01/10 Revision

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Sample container label(s) consiste Sample container(s) intact and goo Proper containers and sufficient vo	ent with COC	íơ ơ	
Analyses received within holding to pH / Res. Chlorine / Diss. Sulfide / Proper preservation noted on COC	Diss. Oxygen received w	∕ithin 24 hours… □	
□ Unpreserved vials received for V Volatile analysis container(s) free			
Tedlar bag(s) free of condensation	۱		
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# WORK ORDER NUMBER: 13-06-1762

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 07/2/2013 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.



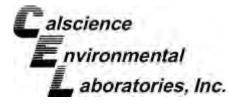
10 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com

**Contents** 



Client Project Name: DFSP - Norwalk Work Order Number: 13-06-1762

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3	Quality Control Sample Data       3.1 MS/MSD and/or Duplicate         3.1 MS/MSD and/or Duplicate       3.2 LCS/LCSD	5 5 7
4	Sample Analysis Summary	8
5	Glossary of Terms and Qualifiers	9
6	Chain of Custody/Sample Receipt Form	10



**Work Order Narrative** 



## Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/26/2013. They were assigned to Work Order 13-06-1762.

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 an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

## 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:

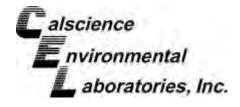
Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Subcontract Information:

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

 NELAP ID: 03220CA · DoD-ELAP ID: L10-41 · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830

 ▲
 7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



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Parsons Government Services, Inc. 100 West Walnut Street Pasadena, CA 91124-0002 Date Received: Work Order No: Preparation: Method: 06/26/13 13-06-1762 EPA 3005A Total EPA 6020

Page 1 of 1

Project: DFSP - Norwalk	Project:	DFSP -	Norwalk
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Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent		13-06-1762-1-A	06/26/13 12:45	Aqueous	ICP/MS 03	06/28/13	06/28/13 19:01	130628L02
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Arsenic	ND	0.00100	1		mg/L			
Method Blank		096-06-003-4,136	N/A	Aqueous	ICP/MS 03	06/28/13	06/28/13 18:37	130628L02
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Arsenic	ND	0.00100	1		mg/L			

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Parsons Government Services, Inc. 100 West Walnut Street	Date Received: Work Order No:	06/26/13 13-06-1762
Pasadena, CA 91124-0002	Preparation:	EPA 3005A Total
	Method:	EPA 6020

#### Project DFSP - Norwalk

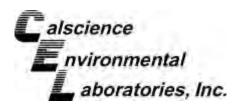
Quality Control Sample ID			Matrix	Ir	nstrument		Date epared	Date Analyzed		ISD Batch umber
13-06-1699-1			Aqueous	s IC	CP/MS 03	06/2	28/13	06/28/13	130	628S02
Parameter	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> ADDED	MS CONC	<u>MS</u> <u>%REC</u>	MSD CONC	<u>MSD</u> <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Arsenic	0.01044	0.1000	0.1170	107	0.1179	107	80-120	1	0-20	

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RPD - Relative Percent Difference, CL - Control Limit

hM

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## **Quality Control - PDS / PDSD**



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

Date Received Work Order No: Preparation: Method: 06/26/13 13-06-1762 EPA 3005A Total EPA 6020

## Project DFSP - Norwalk

Quality Control Sample ID	Matrix	c Instru	ment	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
13-06-1699-1	Aqueo	ous ICP/I	MS 03	06/28/13	06/28/13	130628S02
Parameter	SAMPLE CONC	SPIKE_ADDED	PDS_CONC	DDS %REC	%REC CL	<u>Qualifiers</u>
Arsenic	0.01044	0.1000	0.1078	97	75-125	

RPD - Relative Percent Difference, CL - Control Limit

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## alscience nvironmental Quality Control - Laboratory Control Sample aboratories, Inc.

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

Date Received: Work Order No: Preparation: Method:



N/A 13-06-1762 EPA 3005A Total EPA 6020

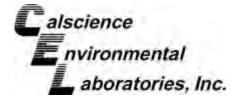
## Project: DFSP - Norwalk

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File	e ID	LCS Batch Number
096-06-003-4,136	Aqueous	ICP/MS 03	06/28/13	130628-L-02_	_075.icp	130628L02
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec Cl</u>	Qualifiers
Arsenic		0.1000	0.09917	99	80-120	

RPD - Relative Percent Difference, CL - Control Limit

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## Sample Analysis Summary Report



## WORK ORDER #: 13-06-1762

Lab Sample Number	Client Sample ID	Method	Extraction	Date/Time Analyzed	Chemist ID	Instrument	Analytical Location
1-A	Effluent	EPA 6020	EPA 3005A T	06/28/2013 19:01	598	ICP/MS 03	1

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Location	Description
1	7440 Lincoln Way, Garden Grove, CA 92841



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## **Glossary of Terms and Qualifiers**



#### Work Order Number: 13-06-1762

Qualifier	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 was reported without further 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 matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
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.
E	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 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).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
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.
Z	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.
	For any analysis identified as a "field" test with a holding time (HT) = 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample</td

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.

analysis does not meet Calscience's internal HT, results will be appropriately qualified.

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	100 W. WA	Inut St.		conternational multi-separate		-			PRC	JECT	CONT	FACT:		alk	<b>A</b>	9880000000000000000000			1	SAMP	LER(S	5): (PR	INT)			
CITY:	100 W. Wa Pasadena E-MAIL		C	STATE:			ZIP:		M	٩٧	Lu	دم	/c	ind	12	ick	er.			Gle	nn /	4na	(rosp	co		
TEL:	6-440-6032 E-MAIL	ry. Lucas	Parse	the task						/		4		REČ	ົ່ງບເ	EST	ED		IAV	_YS	ES	)	(rosk		*******	
TURN	IAROUND TIME:	•									PI	ease	chec	k box	or fi	ll in b	lank	as n	eede	d.						
∐ s,	AME DAY 24 HR 48 GLOBAL ID	HR 72	HR 🕅 S	TANDAR	D		CODE									ຍ					747X					
C	OELTEDF		2				CODE									a Core					6020/747X	œ.				
SPEC	CIAL INSTRUCTIONS:										7					] Terra				Σ		218				
											C6-C44		00			ore 🗆				VIS 02	6010/747X	7199 🗆	6020			
									GRO				82(		260)	En C		(1)		0 8270	6010					
						Ved	o.	ered			🗆 C6-C36		TBE	60)	es (8	<u>ا</u> 1	3270)	\$ (80	82)	3270	s 	7196	rsenic			
LAB		SAMF	PLING	ſ	NO.	Unpreserved	Preserved	Field Filtered	TPH(g)	(b)HqT	0 D		BTEX / MTBE 🗆 8260	VOCs (8260)	Oxygenates (8260)	Prep (5035) 🗆 En Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs 🗆 8270	T22 Metals	cr(VI) 🗆	r Sei			
USE ONLY	SAMPLE ID	DATE	TIME	MATRIX	OF CONT.	dun	Pres	Це Ц			ТРН	HdT	BTE	Ş	ő	Prep	svo	Pest	РСВ	PAH	T22	S S	4			
Ī	Effluent	6-26-13	1245	Gen	1		X																X			
											1															
					8				1		1															
			1	1			1	<u> </u>	<b> </b>																	
				-		<u> </u>	<u> </u>				<u> </u>												<b>†</b>			
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<u> </u>			<b></b>			<u> </u>	<u> </u>		<b> </b>				<b> </b>										┝──┨			
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		<u> </u>		]	<u> </u>	l						l														
Relir	nquished by: (Signature)	newsen				eceive		/	' II .	_ / .		1	12	2					Date	:: -26:	_/1		Time 14	*: 45		
Relir	nquished by: (Signature)	newsin			R	eceive	d by: (	Signat	Balling.			1	e e e e e e e e e e e e e e e e e e e		 L	inistrianiai inistianiai			Date	<u> </u>	.//	17	Time	Э.	7.	
Dalla	nguished by: (Signature)	ing				eceive	d by: /	Signat		· 1	nl	A	Ľ.	(~ (	56				Ç Date		up	1>	Time	16:	0	
Reilf	iquisited by, (Signature)	/				eceive	u by. (	Jugitat	u e/Al	minerite	in l	/							Date					•.		-
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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.

11/01/12 Revision

		Page 11 of 11
Calscience · WORK ORDER	# 13-06-	7762
SAMPLE RECEIPT F	ORM Coc	oler of
CLIENT: PARSON'S	DATE:	6 / 26/13
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not fr	ozen except sedim	ıent/tissue)
Temperature $2 \cdot 6 \circ C - 0.2 \circ C (CF) = 7 \cdot 4 \circ C$		∃ Sample
□ Sample(s) outside temperature criteria (PM/APM contacted by:		
□ Sample(s) outside temperature criteria but received on ice/chilled on sar		
□ Received at ambient temperature, placed on ice for transport by		
	r courier.	Initial: Ay
Ambient Temperature:  Air  Filter		
CUSTODY SEALS INTACT:		
	ent □ N/A	Initial: An
□ Sample □ □ No (Not Intact) □ Not Pres	ent	Initial:
SAMPLE CONDITION:	Yes	No N/A
Chain-Of-Custody (COC) document(s) received with samples		
COC document(s) received complete	A	
□ Collection date/time, matrix, and/or # of containers logged in based on sample la	ibels.	
$\Box$ No analysis requested. $\Box$ Not relinquished. $\Box$ No date/time relinquished.		
Sampler's name indicated on COC	<u>_</u>	
Sample container label(s) consistent with COC	Ł	
Sample container(s) intact and good condition		
Proper containers and sufficient volume for analyses requested	/	
Analyses received within holding time		
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hou		
Proper preservation noted on COC or sample container	🗹	
Unpreserved vials received for Volatiles analysis		
Volatile analysis container(s) free of headspace		
Tedlar bag(s) free of condensation CONTAINER TYPE:		
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnC	ores <sup>®</sup> □TerraCor	res® □
Water: DVOA DVOAh DVOAna <sub>2</sub> D125AGB D125AGBh D125AG	Bp □1AGB □1/	AGB <b>na₂</b> □1AGB <b>s</b>
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250C	GB <b>s</b> □1PB □1	PB <b>na</b> □500PB
□250PB ☑250PBn □125PB □125PBznna □100PJ □100PJna <sub>2</sub> □	〕 □	
Air: □Tedlar <sup>®</sup> □Canister Other: □ Trip Blank Lot#: Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag I Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s: H <sub>2</sub> SO <sub>4</sub> u: Ultra-pure znna: ZnA	E: Envelope Rev	iewed by: <u>P</u>

SOP T100\_090 (11/20/12)

Return to Contents

# ATTACHMENT C

Groundwater Extraction Treatment System

Monitoring Logs

GWTS Environmental	Compliance /	Operation	Maintenance	Worksheets
	11 11 12			

PARSONS	DAILY	INSPECTION
MAINTE	NANC	E LOGSHEET

EQUIPMENT	Inle	et Pressure (psig)	Ou	tlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	COMMENTS
3F1 (East)	P2	37	P3	23	P2-P3	0		
3F2 (Center)	P4	36	P5	35	P4-P5	0		
BF3 (West)	P6	39	P7	39	P6-P7	0		
MYCELX							If > 15 psig; change filter	
IX-7 (small)	P8	15	P9	37	P8-P9	0		
IX-21 (large)	P9	37	P10	5	P9-P10	0		
AC FILTERS							If > 10 psig; notify.	
AC - 1	P10	5	P11	28	P10-P11	0		
AC - 2	P11	28	P12	24	P11-P12	0		
AC - 3	P12	24	P13	23	P12-P13	0		
n Exchange	P13	23	P14	11	P13-P14	0		
	Inst	antaneous Flow		otalizer Reading	Last To	tallaas Deedlas		
LOW METERS		(GPM)		(GAL)		talizer Reading (GAL)	Flow Volume (GAL)	
Vells: GW-2	!	5.6	10	9149.5	1015	302.		
/ells: GW-13		4.3	67	7065.5		146.0	· ·	
/ells: GW-2/13	9	1,5	12	507474.0	1250	0924.3		
/ells: GW-15	3	3.9	55	6522.5	5549	72.0		
/ells: GW-16	8	2.6	47	35667.4	4733	5104.1		
/ells: GW-15/16	14	40		22365	1467	66.5		
PDES Discharge	3	57	1	3006050	6529			
PDES Sample Collecti	on (circle o	one): MONTHLY, QUA	RTERLY,	ANNUAL, OTHER (speci	fy)	[If collecting N	PDES samples today, record effluent terr	perature (deg, C) and pH]
EMP	(degrees,	С) рН	Data c	ollection instrument use	d (check one	): 🗆 Horiba U-10 d	or Other (please specify)	
DTES / DAILY TASK	C SI IMANA A	PV.						
				A /				
filters.	l sys	stem @ 1	50	after arse	nic re	sin change	out. Replaced n	1x-7 BF-1,2+3

DATE: M 4-15-13 TIME: 1015 WEATHE	ER: Cloudy	650

QUIPMENT	Inle	et Pressure (psig)	0	utlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS	
AG FILTERS (BF)							If > 25 psig; change filter		
F1 (East)	P2	38	P3	14 37	P2-P3	0			
F2 (Center)	P4	38	P5	37	P4-P5	0			
F3 (West)	P6	42	P7	42	P6-P7	0			
YCELX							If > 15 psig; change filter		
X-7 (small)	P8	27 38	P9	37	P8-P9	0			
X-21 (large)	P9	37	P10	1532	P9-P10	0			
AC FILTERS							If > 10 psig; notify.		
AC - 1	P10	1532	P11	30	P10-P11	0			
AC - 2	P11	30	P12	27	P11-P12	0			
AC - 3	P12	27	P13	26	P12-P13	0			
n Exchange	P13	26	P14	ID	P13-P14	0			
	Inst	tantaneous Flow	-	Totalizer Reading	Last To	talizer Reading	Flow Volume		
OW METERS		(GPM)	-	(GAL)		(GAL)	(GAL)		
/ells: GW-2	5.8		10:	50104.0	1019	1.49.5			
/elis: GW-13	4.2		701142.8		677065.5				
elis: GW-2/13		9.4	1255 8930.8		12507474.0		-		
ells: GW-15		3.6	576115.1		556	522.5	-		
ells: GW-16	4	1.3	47	59115.8	4738	5667.4			
/ells: GW-15/16	8	3.3	15	19588.0	147	2236.5			
PDES Discharge	3	8	65	384950	6530	00650			
			-						
DES Sample Collect	ion (circle	one): MONTHLY, QUA	RTERLY	, ANNUAL, OTHER (spec	ify)	[If collecting N	PDES samples today, record effluent ter	mperature (deg, C) and pH]	
EMP	(degrees,	C) pH	Data	collection instrument us	ed (check one	e): 🗆 Horiba U-10 (	or Other (please specify)		
TES / DAILY TASI	K SUMMA	RY							
change P.	3 P.	8 + P-10	ane se	UN QQUCAL					
Semplail	0 601	uent and		and to K	-	enic			
compress	CIPI	vini und	D pressure gauges. nd surge tank for arsenic. : level c surge tank ~ 40ppb.						

GWTS Environmental Compliance / Operation Maintenance Worksheets

DATE: T 4-10	0.13 T	IME: 1515	_	WEATHER	a:Su	may 740		
OPERATOR NAME		S. Androsku			REV'D BY:			
EQUIPMENT	Inle	t Pressure (psig)	Out	et Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF	)						If > 25 psig; change filter	
BF1 (East)	P2	37	P3	34	P2-P3	0		
BF2 (Center)	P4	37	P5	36	P4-P5	0		
BF3 (West)	P6	40	P7	40	P6-P7	0		
MYCELX					/	1	If > 15 psig; change filter	
MX-7 (small)	P8	37	P9	35	P8-P9_	0		
MX-21 (large)	P9	35	P10	32	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	32	P11	28	P10-P11	0		
GAC - 2	P11	28	P12	25	P11-P12	0		
GAC - 3	P12	25	P13	24	P12-P13	0		
Ion Exchange	P13	24	P14	10	P13-P14	0		

FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2	5.9	1660360.0	1050104.0		
Wells: GW-13	4.1	708417.0	701142.8		
Wells: GW-2/13	9.6	12575500.8	12558930.8		
Wells: GW-15	3.2	582178.5	576/15.1		
Wells: GW-16	4.2	4766527.0	4759115.8		
Wells: GW-15/16	8.5	1534283.4	1519588.0		4
NPDES Discharge	39	65412660	65384950		

 NPDES Sample Collection (circle one): MONTHLY, QUARTERLY, ANNUAL, OTHER (specify)\_\_\_\_\_\_ [If collecting NPDES samples today, record effluent temperature (deg, C) and pH]

 TEMP
 (degrees, C) pH\_\_\_\_\_\_ Data collection instrument used (check one):
 □
 Horiba U-10 or □
 Other (please specify) \_\_\_\_\_\_

NOTES / DAILY TASK SUMMARY

PARSONS DAILY INSPECTION MAINTENANCE LOGSHEET

GWTS Environmental Compliance / Operation Maintenance Worksheets

EQUIPMENT	Inlet	Pressure (psig)	Outl	et Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF	5)						If > 25 psig; change filter	
BF1 (East)	P2	37	P3	35	P2-P3	0		
BF2 (Center)	P4	34	P5	34	P4-P5	0		
BF3 (West)	P6	39	P7	39	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	36	P9	35	P8-P9	0		
MX-21 (large)	P9	35	P10	30	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	30	P11	26	P10-P11	0		
GAC - 2	P11	26	P12	22	P11-P12	0		
GAC - 3	P12	22	P13	15	P12-P13	0		
Ion Exchange	P13	21	P14	8	P13-P14	0		

FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2	6.1	1085071.5	1060360.0		-
Wells: GW-13	4.4	725433.4	708417.0		
Wells: GW-2/13	9.7	12615019.9	12575500.8		
Wells: GW-15	3.7	595611.0	582178.5		
Wells: GW-16	4.3	4783621.0	4766527.0		-
Wells: GW-15/16	88	1569586.0	1534283.4		
NPDES Discharge	38	65476520	65412660		

 NPDES Sample Collection (circle one): MONTHLY, QUARTERLY, ANNUAL, OTHER (specify)\_\_\_\_\_\_ [If collecting NPDES samples today, record effluent temperature (deg, C) and pH]

 TEMP\_\_\_\_\_\_ (degrees, C) pH\_\_\_\_\_\_ Data collection instrument used (check one): □ Horiba U-10 or □ Other (please specify)\_\_\_\_\_\_

NOTES / DAILY TASK SUMMARY

Field tested assenic level a affluent <a 2 ppb

GWTS Environmental Compliance / Operation Maintenance Worksheets

EQUIPMENT	Inlas	t Pressure (psig)	Out	et Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)	inter	(Pressure (psig)	1 Out	et i leasure (poig)		1 0/	If > 25 psig; change filter	
BF1 (East)	P2	38	P3	37	P2-P3	0		
BF2 (Center)	P4	38	P5	36	P4-P5	0		
BF3 (West)	P6	41	P7	41	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	38	P9	36	P8-P9	0		
MX-21 (large)	P9	36	P10	31	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	31	P11	28	P10-P11	0		
GAC - 2	P11	28	P12	2.4	P11-P12	0		
GAC - 3	P12	24	P13	23	P12-P13	0		
Ion Exchange	P13	23	P14	61	P13-P14	0		
FLOW METERS	Ins	tantaneous Flow (GPM)	Т	otalizer Reading (GAL)	Last T	otalizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2		5.9	11	10556.5	108	5071.5		
Wells: GW-13		4.3	74	13596.0	72	5433.4		
Wells: GW-2/13		9.5	12	655022.0	124	15019.9	-	
Wells: GW-15		4.7	6	11961.0	595	611.0	-	
Wells: GW-16		4.1	4	800741.2	478	3621.0		
Wells: GW-15/16		1.2	16	7.512.7	150	9586.0		
NPDES Discharge		35		542644	65	476520		

 NPDES Sample Collection (circle one): MONTHLY, QUARTERLY ANNUAL, OTHER (specify)\_\_\_\_\_\_ [If collecting NPDES samples today, record effluent temperature (deg, C) and pH]

 TEMP\_25.1
 (degrees, C) pH\_7.13
 Data collection instrument used (check one): X Horiba U-10 or Other (please specify)\_\_\_\_\_\_

/ DAILY TASK SUMMARY	
mpled cffluent.	

**GWTS Environmental Compliance / Operation Maintenance Worksheets** 

EQUIPMENT	Inlet	Pressure (psig)	0	utlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	
BF1 (East)	P2	39	P3	38	P2-P3	0		
BF2 (Center)	P4	39	P5	38	P4-P5	0		
BF3 (West)	P6	43	P7	42	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	40	P9	37	P8-P9	0		
MX-21 (large)	P9	37	P10	32	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	32	P11	29	P10-P11	0		
GAC - 2	P11	29	P12	25	P11-P12	0		
GAC - 3	P12	25	P13	25	P12-P13	0		
Ion Exchange	P13	25	P14	10	P13-P14	0		
FLOW METERS	Inst	antaneous Flow (GPM)		Totalizer Reading (GAL)	Last To	otalizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2		5.9	1	28 587.5	1110	556.5		
Wells: GW-13		4.3	7	56777.0	74:	3596.0	-	
Wells: GW-2/13		9.3	17	2683573.5	1.	55022.0		
Wells: GW-15		4.5	6	25631.0		951.0		
Wells: GW-16		4.1	4	812924.0	480	0741.2		
Wells: GW-15/16		8.8	1	634582.5		7312.7		
NPDES Discharge		34	G	5691360		542644		

50 NPDES Discharge

NPDES Sample Collection (circle one): MONTHLY, QUARTERLY, ANNUAL, OTHER (specify)\_ [If collecting NPDES samples today, record effluent temperature (deg, C) and pH] TEMP (degrees, C) pH

NOTES / DAILY TASK SUMMARY

GWTS Environmental Compliance / Operation Maintenance Worksheets

BAG FILTERS (BF)		Pressure (psig)	Out	let Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
							If > 25 psig; change filter	
F1 (East)	P2	39	P3	38	P2-P3	0		
F2 (Center)	P4	38	P5	37	P4-P5	0		
F3 (West)	P6	42	P7	41	P6-P7	0		
IYCELX							If > 15 psig; change filter	
IX-7 (small)	P8	38	P9	35	P8-P9	0		
IX-21 (large)	P9	35	P10	30	P9-P10	0		
AC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	30	P11	27	P10-P11	0		
GAC - 2	P11	27	P12	23	P11-P12	0		
GAC - 3	P12	23	P13	22	P12-P13	0		
on Exchange	P13	22	P14	8	P13-P14	0		
	Insta	antaneous Flow	1 1	otalizer Reading	Last To	otalizer Reading	Flow Volume	
LOW METERS	-	(GPM)		(GAL)		(GAL)	(GAL)	
Vells: GW-2	-	6.2		44756.6		3587.5	-	
Vells: GW-13	-	4.4	76	8449.2		0.777	-	
Vells: GW-2/13		9.5		708767.7	12683573.5		-	
Vells: GW-15		4.0	63	16915.Z	625631.0		-	
Vells: GW-16	-	4.3	41	482378402		2924.0	-	
Vells: GW-15/16		8.5	10	57397.2		34582.5		
NPDES Discharge		33	65	635888	65	591360		

GWTS Environmental Compliance / Operation Maintenance Worksheets DATE: M 4-29-13 TIME: 0920

BAG FILTERS (BF)	Inte	t Pressure (psig)	Out	tlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
DAG FILTERS (BF)				4 <i>0</i> /		(10)	If > 25 psig; change filter	COMMENTS
BF1 (East)	P2	40	P3	38	P2-P3	0		
BF2 (Center)	P4	40	P5	37	P4-P5	0		
BF3 (West)	P6	43	P7	42	P6-P7	0		
MYCELX							lf > 15 psig; change filter	
MX-7 (small)	P8	40	P9	36	P8-P9	0		
MX-21 (large)	P9	36	P10	29	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	29	P11	26	P10-P11	0	is pag, namy	
GAC - 2	P11	26	P12	23	P11-P12	0		
GAC - 3	P12	23	P13	23	P12-P13	0		
on Exchange	P13	23	P14	8	P13-P14	0		
	Inst	antaneous Flow	Te	otalizer Reading	Last Tot	alizer Reading	Flow Volume	
			(GAL)		Last TOL	anzer Reading	Flow volume	
LOW METERS	_	(GPM)	-	(GAL)	-	(GAL)	(GAL)	
FLOW METERS		(GPM)	11	(GAL) 70761.0		(GAL) 756.6	(GAL) -	
					1144		(GAL) -	
Wells: GW-2		6.1	78	70761.0	1144	756.6	(GAL) - - -	
Vells: GW-2 Vells: GW-13		6.1 4.0	78	70761.0	1144	756.6 149.2 8767.7	(GAL) - - - -	
Wells: GW-2 Nells: GW-13 Nells: GW-2/13		4.0 9.4	78	70761.0 6290.0 748473.2	1144 7684 12709 6369	756.6 149.2 8767.7	(GAL)	
Vells: GW-2 Vells: GW-13 Vells: GW-2/13 Vells: GW-15		4.0 9.4 4.1	781 12 6 48	70761.0 6290.0 748473.2 54040.7	1144 7684 12709 6369 4823	756.6 149.2 8767.7 15.2	(GAL)	

#### **DFSP Norwalk** -----

GWTS Environmental Compliance	<b>Operation</b>	Maintenance	Worksheets
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EQUIPMENT	Inlet Pressure (psig)	Outlet Pressure (psig)		Delta P (psig)	Filter Change Cuilde	
BAG FILTERS (BF)		outer resoure (paig)	_	Delta P (psig)	Filter Change Guide	COMMENTS
BF1 (East)	P2 39	P3 36	P2-P3	0	n > 25 psig, change niter	
BF2 (Center)	P4 39	P5 35	P4-P5	0		
3F3 (West)	P6 42	P7 40	P6-P7	0		
AYCELX			1		If > 4E main above filles	
MX-7 (small)	P8 38	P9 34	P8-P9	0	If > 15 psig; change filter	
MX-21 (large)	P9 34	P10 27	P9-P10	0		
GAC FILTERS			1.0.10	Ū	If > 10 psig; notify.	
GAC - 1	P10 27	P11 24	P10-P11	0	n > to psig, notity.	
GAC - 2	P11 24	P12 21	P11-P12	0		
AC - 3	P12 21	P13 2	P12-P13	0		
on Exchange	P13 2	P14 (0	P13-P14	0		
and the second second	Instantaneous Flow	Totalizer Reading	l aet Tr	otalizer Reading	Flow Volume	
LOW METERS	(GPM)	(GAL)	Lustit	(GAL)	(GAL)	
Vells: GW-2	6.5	1181181.	11705	761.0		
/ells: GW-13	4.1	793094.0		290.0		
ells: GW-2/13	9.4	12763769.4	12.74	8473.2		
/ells: GW-15	4.0	6605 39.0		040.7		
ells: GW-16	4.1	4847851.1		1/212.1		
ells: GW-15/16	8.9	1706771.5		3075.4		
DES Discharge	31	65729595				
<u>j</u>		40 10 10 10	65/	02740	-	

NOTES / DAILY TASK SUMMARY

GWTS Environmental Compliance / Operation Maintenance Worksheets

Inte	et Pressure (psig)	01	tlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
					(10)	If > 25 psig; change filter	COMMENTS
P2	38	P3	36	P2-P3	0		
P4	39	P5	35	P4-P5	0		
P6	42	P7	41	P6-P7	0		
						If > 15 psig; change filter	
P8	38	P9	34	P8-P9	0		
P9	34	P10	26	P9-P10	0		
						If > 10 psig; notify.	
P10	26	P11	23	P10-P11	0		
P11	23	P12	21	P11-P12	0		
P12	21	P13	21	P12-P13	0		
P13	15	P14	7	P13-P14	0		
Inst	antaneous Flow (GPM)	т	otalizer Reading (GAL)	Last To		Flow Volume (GAL)	
	6.3	11		1181		(0).2)	
1	4.1						
	9.5	12	774200.4				
	4.0		•				
1	4.3		· · ·	1			
	8.3						
	30		747842				
	P2         P4         P6         P8         P9         P10         P11         P12         P13	P4         39           P6         42           P8         38           P9         34           P10         24           P11         23           P12         21           P13         21           Instantaneous Flow (GPM)           G.3         4.1           9.5         4.0           4.3         8.3	P2 $38$ P3         P4 $39$ P5         P6 $42$ P7         P8 $38$ P9         P9 $34$ P10         P10 $24$ P11         P10 $24$ P11         P10 $24$ P11         P11 $23$ P12         P12 $21$ P13         P13 $21$ P14         Instantaneous Flow (GPM)       T $4.1$ $07$ $4.5$ $12$ $4.0$ $66$ $4.3$ $48$ $8.3$ $171$	P2 $38$ P3 $34$ P4 $39$ P5 $35$ P6 $42$ P7 $41$ P8 $38$ P9 $34$ P9 $34$ P10 $24$ P10 $24$ P11 $23$ P10 $24$ P10 $24$ P11 $23$ P12 $21$ P12 $21$ P13 $21$ P13 $21$ P14 $7$ Instantaneous Flow (GPM)       Totalizer Reading (GAL) $4.1$ $0797418.2$ $4.1$ $0797418.2$ $4.1$ $0797418.2$ $4.3$ $4852294.3$ $8.3$ $1715940.0$ $4.3$	P2 $38$ P3 $34$ P2-P3         P4 $39$ P5 $35$ P4-P5         P6 $42$ P7 $41$ P6-P7         P8 $38$ P9 $34$ P8-P9         P9 $34$ P10 $24$ P9-P10         P10 $24$ P11 $23$ P10-P11         P11 $23$ P12 $21$ P11-P12         P12 $21$ P13 $21$ P12-P13         P13 $21$ P14 $7$ P13-P14         Instantaneous Flow (GPM)       Totalizer Reading (GAL)       Last To (GAL) $4.1$ $0797418,2$ $7934$ $4.3$ $4852294.3$ $484'$ $8.3$ $1715940.0$ $1206$	P2 $38$ P3 $34$ P2-P3 $0$ P4 $39$ P5 $35$ P4-P5 $0$ P6 $42$ P7 $41$ P6-P7 $0$ P8 $38$ P9 $34$ P8-P9 $0$ P9 $34$ P10 $24$ P9-P10 $0$ P10 $24$ P11 $23$ P10-P11 $0$ P10 $24$ P11 $23$ P10-P11 $0$ P11 $23$ P12 $21$ P11-P12 $0$ P12 $21$ P13 $21$ P12-P13 $0$ P13 $21$ P14 $7$ P13-P14 $0$ Instantaneous Flow (GPM)       Totalizer Reading (GAL)       Last Totalizer Reading (GAL)       Last Totalizer Reading (GAL) $4.1$ $0.797.418.2$ $793.094.02$ $118/187.1$ $4.1$ $0.797.4200.4$ $12.743.749.4$ $4.0$ $6.664.724.0$ $6.653.9.0$ $4.3$ $48.52.294.3$ $484.7851.1$ $8.51.1$ $8.53.17.640.0$ $1706.71.5$	P2         38         P3         34         P2-P3         0           P4         39         P5         35         P4-P5         0         1           P6         42         P7         41         P6-P7         0         1           P8         38         P9         34         P8-P7         0         1           P8         38         P9         34         P8-P7         0         1           P9         34         P10         24         P9-P10         0         1           P10         24         P10         24         P9-P10         0         1           P10         24         P10         24         P9-P10         0         1           P11         23         P12         21         P11-P11         0         1           P11         23         P12         21         P12-P13         0         1           P13         21         P13-P14         0         1         1         1           Instantaneous Flow (GPM)         Totalizer Reading (GAL)         Last Totalizer Reading (GAL)         1         1         1           4.1         07977418,22         793094.02

PARSONS DAILY INSPECTION

GWTS Environmental Compliance / Operation Maintenance Worksheets

DATE: 06-03-	13	TIME: 1508	_	WEATHE	R:	SUNAY	(	
OPERATOR NAME: PRESSURE REAL	DINGS	Milton L. (	Brac	lillas	REV'D BY:			
EQUIPMENT	Ir	nlet Pressure (psig)	0	Outlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)	_						If > 25 psig; change filter	
BF1 (East)	P2	41	P3	38	P2-P3	0		
BF2 (Center)	P4	0	P5	37	P4-P5	0		P4 GAUSE NOT RADANS
BF3 (West)	P6	43	P7	42	P6-P7	0		
MYCELX			_				If > 15 psig; change filter	
MX-7 (small)	P8	39	P9	36	P8-P9	0		
MX-21 (large)	P9	36	P10	29	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	29	P11	26	P10-P11	0		
GAC - 2	P11	26	P12	24	P11-P12	0		
GAC - 3	P12	24	P13	23.5	P12-P13	0		
Ion Exchange (Bed 1)	P13	23.5	P14	il	P13-P14	0		
Ion Exchange (Bed 2)	P14	11	P15	6.5	P14-P15	0		

FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2	5.4	1189149.0	1187899.2		
Wells: GW-13	4.5	798 372.0	797418.2		
Wells: GW-2/13	9.)	12776070.0	12774200.4		
Wells: GW-15	3.0	665563.0	664721.0		
Wells: GW-16	4.2	4853299,0	4852294,3		
Vells: GW-15/16	8.7	1717840.0	1715940.0		
NPDES Discharge	28	65749190	65747842		

NPDES Sample Colle	ection (circle one): MONTHLY,	QUARTERLY, ANNUAL, OTHER (specify)	[If collecting NPDES samples today, record effluent temperature (deg, C) and pH]
TEMP	(degrees, C) pH	Data collection instrument used (check one):	Horiba U-10 or Other (please specify)

NOTES / DAILY TASK SUMMARY

a second ion exchange bed to system. Restarted system @ 1400 Added Shutoculd System D 1545

GWTS Environmental Compliance / Operation Maintenance Worksheets

EQUIPMENT	In	et Pressure (psig)	0	utlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	
BF1 (East)	P2	41	P3	37	P2-P3	0		
BF2 (Center)	P4	40	P5	36	P4-P5	0		
BF3 (West)	P6	43	P7	41	P6-P7	0		
AYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	39	P9	36	P8-P9	0		
IX-21 (large)	P9	36	P10	30	P9-P10	0		
SAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	30	P11	29	P10-P11	0		
SAC - 2	P11	29	P12	26	P11-P12	0		
AC - 3	P12	24	P13	24	P12-P13	0		
n Exchange (Bed 1)	P13	26	P14	15	P13-P14	0		
n Exchange (Bed 2)	P14	15	P15	0	P14-P15	0		
			1	fotalizer Reading	Last To	talizer Reading	Flow Volume	
LOW METERS	Instan	taneous Flow (GPM)		(GAL)	Last TO	(GAL)	(GAL)	
/ells: GW-2		5.4		1189756.2	11891	49.0		
/ells: GW-13		4.6	7	98910.0	798			
/ells: GW-2/13		٩	12	2777107.5		670.0		
/ells: GW-15		3.5	6	66 029.2	665	563.0		
/ells: GW-16		4.4	4	853 854.0	485	3299.0		
ells: GW-15/16		8:8	17	18928.2		840.0		
PDES Discharge	2	23	65	577 52075	6574	19190		
DES Sample Collectio	n (circle	one): MONTHLY, QUA	RTERLY	, ANNUAL, OTHER (spec	ify)	[If collecting N	PDES samples today, record effluent ter	nperature (deg, C) and pH]
EMP(0	legrees,	C) pH	Data c	ollection instrument use	d (check one)	Horiba U-10 or	Other (please specify)	
DTES / DAILY TASK		PV.						
			200	and :				
nestarted	Sy	ubon beds	0080	2" 100 e	achan	ge vessel or	n line + new acid	fied carbon

DATE: 611.13 TIME:	1010
OPERATOR NAME: Milton	L. Gradillas
PRESSURE READINGS	

REV'D BY:

EQUIPMENT	Inlet Pressure (psig)	Outlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF	)				If > 25 psig; change filter	
BF1 (East)	P2 41	P3 38	P2-P3	0		
BF2 (Center)	P4 40	P5 36	P4-P5	0		
BF3 (West)	P6 42	P7 41	P6-P7	0		
MYCELX					If > 15 psig; change filter	
MX-7 (small)	P8 39	P9 36	P8-P9	0		
MX-21 (large)	P9 36	P10 28	P9-P10	0		
GAC FILTERS					If > 10 psig; notify.	
GAC - 1	P10 28	P11 27	P10-P11	0		
GAC - 2	P11 27	P12 23	P11-P12	0		
GAC - 3	P12 23	P13 22.5	P12-P13	0		
on Exchange (Bed		P14 * 2 9	P13-P14	0		
on Exchange (Bed 2	2) P14 N2 9	P15 2	P14-P15	0		

FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2	5.5	1197850.9	1189756.2		
Wells: GW-13	5.	805831.5	798910.0		
Wells: GW-2/13	9.3	12790667.7	12777107.5		
Vells: GW-15	3.2	670646.3	666029.2		
Wells: GW-16	4.3	4860029.1	4853844.0		
Wells: GW-15/16	8.3	1731140.3	1718928.2		
NPDES Discharge	28	65773820	65752075		

NPDES Sample Collection (circle one): MONTHLY,QU		[If collecting NPDES samples today, record effluent temperature (deg, C) and pH]
TEMP 25.2 (degrees, C) pH 6.59	Data collection instrument used (check one):	Horiba U-10 or  Other (please specify)

NOTES / DAILY	TASK SUMMARY
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GWTS Environmental Compliance / Operation Maintenance Worksheets

EQUIPMENT	Inle	et Pressure (psig)	Out	let Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	
BF1 (East)	P2	37	P3	26	P2-P3	0		
BF2 (Center)	P4	36	P5	24	P4-P5	0		
BF3 (West)	P6	39	P7	29	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	27	P9	25	P8-P9	0		
MX-21 (large)	P9	25	P10	20	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	20	P11	18	P10-P11	0		
GAC - 2	P11	18	P12	16	P11-P12	0		
GAC - 3	P12	16	P13	16	P12-P13	0		
on Exchange (Bed 1)	P13	16	P14	9	P13-P14	0		
on Exchange (Bed 2)	P14	9	P15	3	P14-P15	0		
			To	talizer Reading	Last To	talizer Reading	Flow Volume	
LOW METERS	Instanta	aneous Flow (GPM)		(GAL)	Last TO	(GAL)	(GAL)	
Vells: GW-2	-	5.6	12	06496.0	11978	\$50.9		
Vells: GW-13		5.2	81:	3680.0	8058	231.5		
Vells: GW-2/13	(	9.4	128	805717.4	1279	0667.7		
Vells: GW-15		3.2	67:	5422.8	6706	46.3		
Vells: GW-16		4.2	480	066 62.8	4860	1.950		
Vells: GW-15/16	2	8.4	174	4 237.8	1731	140.3		
IPDES Discharge		16	65	800546	6577	3820		
PDES Sample Collectio	n (circle d	one): MONTHLY, QUA	RTERLY, A	ANNUAL, OTHER (spec	cify)	[If collecting N	PDES samples today, record effluent te	mperature (deg, C) and pH]
TEMP (d	legrees, (	C) pH	Data col	lection instrument use	d (check one)	Horiba U-10 or	Other (please specify)	
OTES / DAILY TASK S								

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GWTS Environmental Compliance / Operation Maintenance Worksheets

QUIPMENT	Inle	et Pressure (psig)	Ou	tlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
AG FILTERS (BF)				( <b>v</b>		(1-0)	If > 25 psig; change filter	COMMENTS
IF1 (East)	P2	39	P3	39	P2-P3	0		
F2 (Center)	P4	39	P5	37	P4-P5	0		
F3 (West)	P6	41	P7	41	P6-P7	0		
IYCELX							If > 15 psig; change filter	
IX-7 (small)	P8	40	P9	37	P8-P9	0		
IX-21 (large)	P9	37	P10	31	P9-P10	0		
AC FILTERS							If > 10 psig; notify.	
AC - 1	P10	31	P11	30	P10-P11	0		
AC - 2	P11	30	P12	25	P11-P12	0		
AC - 3	P12	25	P13	24	P12-P13	0		
n Exchange (Bed 1)	P13	24	P14	(1	P13-P14	0		
n Exchange (Bed 2)	P14	LL L	P15	2	P14-P15	0		
			Т	otalizer Reading	Last To	talizer Reading	Flow Volume	
LOW METERS	Instant	aneous Flow (GPM)			(GAL)		(GAL)	
/ells: GW-2		5.4		22104.3	1206	496.0		
ells: GW-13		4.5		7338.4		,80.0		
ells: GW-2/13		1.5		831993.5	1280	5717.4		
ells: GW-15		2.8	68	3470.0	675	422.8		
ells: GW-16		4.2	48	78324.0	4866662.8			
ells: GW-15/16		6.8		66420.5	1740	1237.8		
PDES Discharge		31	658	841768	658	00546		
	n (circle )	one): MONTHLY, QUA		ANNUAL, OTHER (spec			NPDES samples today, record effluent to	emperature (deg, C) and pH]
EMP(o	legrees,	C) pH	Data co	llection instrument use	d (check one)	E Horiba U-10 o	r Other (please specify)	
DTES / DAILY TASK		ev.						
			1	1				
ystem or	# t(	om 0805	to	1000 to re	pair	leak and	change out mx-	7, BF-1, 2+3
Filters	_							

GWTS Environmental Compliance / Operation Maintenance Worksheets

DATE: 0-17. (	3 TIME:	0	750
OPERATOR NAME:	Milton	L.	Gradillas

laty do REV'D BY:

WEATHER:

EQUIPMENT	Inlet Pressure (psig)	Outlet Pressure (psig)	1 C 1	Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)				If > 25 psig; change filter		
BF1 (East)	P2 38	P3 37	P2-P3	0		
BF2 (Center)	P4 37	P5 36	P4-P5	0		
BF3 (West)	P6 4	P7 42	P6-P7	0		
MYCELX					If > 15 psig; change filter	
MX-7 (small)	P8 40	P9 37	P8-P9	0		
MX-21 (large)	P9 37	P10 33	P9-P10	0		te.
GAC FILTERS					If > 10 psig; notify.	
GAC - 1	P10 33	P11 . 31	P10-P11	0		
GAC - 2	P11 3	P12 27.5	P11-P12	0		
GAC - 3	P12 27.5	P13 28	P12-P13	0		
Ion Exchange (Bed 1)	P13 28	P14 13	P13-P14	0		
on Exchange (Bed 2)	P14 /3	P15 3	P14-P15	0		

FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2	5.8	1245769.0	1222104.3		
Wells: GW-13	4.6	8466 5.0	827338.4		
Wells: GW-2/13	9.8	12870309.6	12831993.5		
Vells: GW-15	N295.2	6948759	683470.0		
Wells: GW-16	4.3	489 5597.0	4878324.0	-	
Vells: GW-15/16	7.8	17979361	1766420.5		
NPDES Discharge	55	65102185	65841768		

NPDES Sample	Collection (circle one): MONTHLY	Y, QUARTERLY, ANNUAL, OTHER (specify)	[If collecting NPDES samples today, record effluent temperature (deg, C) and pH]	
TEMP	(degrees, C) pH	Data collection instrument used (check one):	Horiba U-10 or      Other (please specify)	

NOTES / DAILY TASK SUMMARY

GWTS Environmental Compliance / Operation Maintenance Worksheets DATE: M 6-24-13 TIME: 4430/030

G. Androsku

Inlet Pressure (psig) Outlet Pressure (psig)

OPERATOR NAME:

EQUIPMENT

PRESSURE READINGS

EQUIPMENT	Inlet Pressure (psig)			itlet Pressure (psig)		Deita P (psig)	Filter Change Gulde	ange Guide COMMENTS		
BAG FILTERS (BF)							If > 25 psig; change filter			
BF1 (East)	P2	20	P3	14	P2-P3	0	1			
BF2 (Center)	P4	15	P5	15	P4-P5	0				
BF3 (West)	P6	P6 20	P7	20	P6-P7	0				
MYCELX			_				If > 15 psig; change filter			
MX-7 (small)	P8	. 17	P9	16	P8-P9	0				
MX-21 (large)	P9	16	P10	15	P9-P10	0				
GAC FILTERS							If > 10 psig; notify.			
GAC - 1	P10	15	P11	12	P10-P11	0	in poly way.			
GAC - 2	P11	12	P12	9	P11-P12	0				
GAC - 3	P12	9	P13	9	P12-P13	0	1			
Ion Exchange (Bed 1)	P13	q	P14	9	P13-P14	0				
Ion Exchange (Bed 2)	P14	4	P15	3	P14-P15	0				
				otalizer Reading						
FLOW METERS	Instantaneous Flow (GPM)				Last Io	talizer Reading (GAL)	Flow Volume (GAL)			
Wells: GW-2		_	1254 303.1							
Wells: GW-13		-	89	3237.5						
Wells: GW-2/13	-	-	12	8848630	Sec. 12.					
Wells: GW-15	-	-		01739.0						
Wells: GW-16	1	-		901 777.2						
Wells: GW-15/16				12444.6						
NPDES Discharge		15		911543						
NPDES Sample Collection	on (circle o	ne): MONTHLY, QUA	RTERLY	, ANNUAL, OTHER (spec	ify)	[If collecting I	NPDES samples today, record efflue	nt temperature (deg, C) and pH]		
TEMP (	degrees, C	) pH	Data c	ollection instrument used	d (check one)	Horiba U-10 o	r D Other (please specify)			
			_							
NOTES / DAILY TASK										
Remarcoh 10"	Sta	steel treat	in	water from	SUISE	tank and	2ndary contain a	nent. Removed		
obstructio	n for	on the su	in	tank a out	-let	Reconcerte	d to the tamk	and ment dil		
and and the	0 11	9 (Did as	+ +.	un on well p	)			1 M 1 2 3 12/ Han		
system (	2 11	- LPIG NO	1 70	in on well	( samos					

Sunny 270

WEATHER:

REV'D BY:

GWTS Environmental Compliance / Operation Maintenance Worksheets

QUIPMENT	Inle	t Pressure (psig)	Ou	tlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	COMMENTS
BF1 (East)	P2	41	P3	31	P2-P3	0		
BF2 (Center)	P4	40	P5	30	P4-P5	0		
BF3 (West)	P6	43	P7	36	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (smail)	P8	32	P9	30	P8-P9	0		
MX-21 (large)	P9	30	P10	28	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	28	P11	25	P10-P11	0		
GAC - 2	P11	25	P12	22	P11-P12	0		
GAC - 3	P12	22	P13	22	P12-P13	0		
on Exchange (Bed 1)	P13	22	P14	13	P13-P14	0		
on Exchange (Bed 2)	P14	13	P15	5	P14-P15	0		
FLOW METERS	Instant	aneous Flow (GPM)	т	otalizer Reading (GAL)	Last To	talizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2		5.6	12	58661.0	1250	4 303.1		
Wells: GW-13		5.2		\$4563.6		237.5		
Wells: GW-2/13		9.2		890 862.5		34863.0		
Wells: GW-15		4.7	-	2090.0		739.0		
Wells: GW-16		4.1		02.972.8		1777.2		
Wells: GW-15/16		9.4		15319.5		444.6		
		22		922465		11543		

GWTS Environmental Compliance / Operation Maintenance Worksheets

EQUIPMENT	Inle	t Pressure (psig)	Ou	let Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	COMMENTS
BF1 (East)	P2	40	P3	37	P2-P3	0		
BF2 (Center)	P4	39	P5	36	P4-P5	0		
BF3 (West)	P6	42	P7	41	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	38	P9	36	P8-P9	0		
MX-21 (large)	P9	36	P10	32	P9-P10	0		
GAC FILTERS					_		If > 10 psig; notify.	
GAC - 1	P10	32	P11	30	P10-P11	0		
GAC - 2	P11	30	P12	25	P11-P12	0		
GAC - 3	P12	26	P13	24	P12-P13	0		
on Exchange (Bed 1)	P13	24	P14	12	P13-P14	0		
on Exchange (Bed 2)	P14	12	P15	3	P14-P15	0		
LOW METERS	Instantaneous Flow (GPM)		Totalizer Reading (GAL)		Last Totalizer Reading (GAL)		Flow Volume	
Vells: GW-2	4.6		1273410.0		1258661.0		(GAL)	
	4.9		867886.2		854563.6			
Vells: GW-13	9.5		12916118.3		12890862.5			
Vells: GW-13 Vells: GW-2/13	1	1.5	-	714237.8			-	
1			714	1237.8	702	0900		
Vells: GW-2/13		4.2				090.0	-	
Vells: GW-2/13 Vells: GW-15			491	1237.8 3607.2 39521.5	490	090.0 2972.8 319.5		

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