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November 15, 2019

Mr. Paul Cho, P.G.
Engineering Geologist, Site Cleanup V
California Environmental Protection Agency
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, California 90013

Dear Mr. Cho:

Enclosed is one electronic copy of the *Remediation Status Report -- Third Quarter 2019 for the Defense Fuel Support Point Norwalk* (SCP NO. 0286A, SITE ID No. 16638) located at 15306 Norwalk Boulevard, Norwalk, California. This report summarizes remediation system operations during the reporting period of the third quarter in 2019 (July 1, 2019 through September 30, 2019).

If you have any questions or need additional information concerning this document, please contact Ms. Carol Devier-Heeney at (571) 767-8312 or carol.devier-heeney@dla.mil.

Sincerely,

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William Y. Potter, P.G.
Chief, Restoration Branch
Installation Management for Energy

Enclosure
As stated

cc: Daniel Swensson, P.G, Principal Geologist, SGI-Apex

REMEDIATION STATUS REPORT - THIRD QUARTER 2019
DEFENSE FUEL SUPPORT POINT NORWALK
15306 Norwalk Boulevard
Norwalk, California

SGI Project No. 091-NDLA-018
DLA Energy Contract No. SPO600-14-D-5410, Task Order 0018

Prepared For:



Defense Logistics Agency Installation Management for Energy (DM-FEE)
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For Submittal To:

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Prepared By:



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November 15, 2019

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LIST OF ACRONYMS

AST	above ground storage tank
BTEX	Benzene, toluene, ethylbenzene, and total xylenes
°F	degrees Fahrenheit
DFSP	Defense Fuel Support Point
DLA Energy	Defense Logistics Agency Installation Management for Energy (DM-FEE) Environmental Division Restoration Branch
DTP	Depth to product
DTW	Depth to groundwater
ELAP	Environmental Laboratory Accreditation Program
EPA	United States Environmental Protection Agency
GAC	Granular activated carbon
GRO	Gasoline range organic
GWE	Groundwater extraction
GWETS	Groundwater extraction and treatment system
JP-5	Jet propellant number 5
LARWQCB	California Regional Water Quality Control Board, Los Angeles Region
LNAPL	Light non-aqueous phase liquid
µg/L	micrograms per liter
MTBE	Methyl tertiary-butyl ether
ND	Non-detect
NPDES	National Pollutant Discharge Elimination System
OM&M	Operations, maintenance, and monitoring
OVA	Organic vapor analyzer
ppm	Parts per million
PID	Photoionization detector
SCAQMD	South Coast Air Quality Management District
SFPP	Santa Fe Pacific Pipelines Partners, L.P.
SGI	The Source Group, Inc.
SVE	Soil vapor extraction
TBA	Tertiary-butyl alcohol
TOC	Top of casing
TPHd	Total petroleum hydrocarbons quantified as diesel
TPHg	Total petroleum hydrocarbons quantified as gasoline
VES	Vapor extraction system

VOCs Volatile organic Compounds

1.0 INTRODUCTION

On behalf of our client, Defense Logistics Agency Installation Management for Energy (DM-FEE) Environmental Division Restoration Branch (DLA Energy), The Source Group, Inc. (SGI) presents this report to summarize remediation system operations during this reporting period (Third Quarter 2019 - July 1, 2019 through September 30, 2019) for the Defense Fuel Support Point (DFSP) Norwalk facility, located at 15306 Norwalk Boulevard, Norwalk, California (Site; Figures 1 and 2).

This report is submitted pursuant to a request from the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) in a letter dated May 3, 2013.

1.1 Contaminants of Concern

Soil and groundwater at the areas of concern are impacted with hydrocarbons consisting primarily of benzene, toluene, ethylbenzene, and total xylenes (collectively, BTEX), jet propellant number 5 (JP-5), diesel, methyl tertiary-butyl ether (MTBE), and tertiary-butyl alcohol (TBA). MTBE and TBA are interpreted to have resulted from Santa Fe Pacific Pipelines Partners, L.P. (SFPP) operations, and remediation of these impacts is being addressed by SFPP.

The impacted areas consist of the northwestern corner of the Site, the north-central portion of the former tank farm (central area), the northeastern property boundary (eastern area), off-site Holifield Park area, and the southern former water tank and truck fueling areas (southern area).

1.2 Remediation Technologies

Various remediation technologies have been implemented at the Site to treat the hydrocarbon impacts in soil and groundwater. The purposes of these technologies are to reduce hydrocarbon concentrations to cleanup goals, prevent off-site migration, contain contaminant mass, and ultimately achieve Site closure within a reasonable timeframe.

Remediation technologies utilized at the Site include soil vapor extraction (SVE), groundwater extraction (GWE), biosparging, and light non-aqueous phase liquid (LNAPL) removal via manual bailing, vacuum truck, passive skimming, active pumping using a portable skimming pump and absorbent socks. The aboveground treatment of contaminated vadose zone soils excavated at the Site was conducted from April 2015 until March 2017 (see SGI's January 2018 *Shallow Soil Closure Report*). An automated product recovery system was brought online during August 2016 and SVE and/or biosparge wells were installed during November 2016, June/July 2017 and November/December 2017 as part of ongoing remedial expansion activities.

A summary of Site remediation wells, including well identification, well construction information, well function, and operational status, is presented in Table 1. The soil and groundwater remediation system layout (well and piping locations) is presented in Figure 2.

1.2.1 Groundwater Extraction and Treatment System

The GWE well network for hydrocarbon extraction of dissolved-phase subsurface impacts historically included wells installed in the northwest corner of the Site (GW-2 and GW-13), the central area (GW-14R), and the eastern area (GW-15, GW-16, and GMW-58).

The groundwater extraction and treatment system (GWETS) utilizes electric pumps in each of the GWE wells to extract groundwater into a shared surge tank. Groundwater is then pumped from the surge tank through three particulate-removal bag filter vessels in series (BF1, BF2, and BF3), two MYCELX vessels in series (MX-7 and MX-21) for the removal of residual free product and/or oils/grease, and three granular activated carbon (GAC) vessels in series (2,000-pound GAC-1, 2,000-pound GAC-2, and 1,500-pound GAC-3). The groundwater is then pumped through various media canisters and drums for metals treatment/removal prior to being discharged to the storm drain.

Operation of the GWETS has been conducted in accordance with National Pollutant Discharge Elimination System (NPDES) permit CAG994004, CI No. 7585 and South Coast Air Quality Management District (SCAQMD) Permit to Operate G6962, A/N 501180. Active GWE wells are identified in Section 3.1 and Tables 2A through 2C. The GWETS was off-line during the reporting period pending approval of the sewer discharge permit application.

1.2.2 Soil Vapor Extraction Systems

As illustrated on Figure 2, the SVE well network for hydrocarbon extraction from vadose zone subsurface impacts historically included wells installed in the following areas: former above ground storage tank (AST) basin 80001 (VEW-23), former AST basins 80006 and 80007 (VEW-22, HW-1 and HW-3), former AST basin 80008 (HW-5, and HW-7), former AST basin 55004 (VEW-28, VEW-29, and VEW-30), northeastern boundary area (VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, and VEW-37), and southern former truck fueling and water tank area (VEW-31, VEW-38, VEW-39, VEW-40, VW-07, VW-09, VW-10, VW-11, VW-12, VW-13, VW-14, VW-15, and VW-16).

Several new SVE wells were installed within the eastern area and southern area of the Site during November 2016 and June/July 2017, as summarized in SGI's June 30, 2017 *Remediation Well Installation Update Report*. Wells VEW-38, VEW-39 and VEW-40 were brought online to the carbon vapor extraction system (VES) in June 2017, and wells RW-1, RW-2, RW-7, RW-9, RW-12, RW-13, RW-18, RW-20 through RW-24, RW-26, and RW-28 through RW-33 were brought online in August 2017. The new SVE wells were brought online following the completion of tie-in work to the carbon VES. Most of these wells were subsequently tied into the temporary thermal oxidizer VES during late December 2017/early January 2018 prior to the January 8, 2018 startup of this system, with the carbon VES being utilized to exclusively extract from three horizontal wells (HW-1, HW-5 and HW-7) that span through the entire former tank farm since 2018. Additionally, tie-in of wells RW-2 through RW-8, RW-10 through RW-12, and RW-14 through RW-17 to the temporary thermal oxidizer VES was completed on February 14, 2018, and wells RW-34 through RW-50 were tied in and brought online on June 27, 2018. The permanent full-scale thermal oxidizer VES (hereafter referred to as thermal oxidizer VES) was installed and tested and system startup began on March 13, 2019.

Each VES utilizes a blower to remove soil vapors from the subsurface. The extracted vapors are conveyed through a knockout tank that separates entrained moisture from the soil vapors. For both systems, accumulated moisture within the knockout tank is treated by the GWETS, as described in the preceding section. Following is a brief summary of each VES.

1.2.2.1 Carbon Vapor Extraction System

Soil vapors from the carbon VES knockout tank are treated via four GAC vessels where volatile organic compounds (VOCs) are adsorbed onto the GAC within the vessels. The primary and secondary GAC vessels, each 5,000 pounds, are installed in series with each other, and are followed by a pair of tertiary vessels, each 2,000 pounds, installed in parallel.

Operation of the carbon VES is conducted in accordance with SCAQMD Permit to Construct A/N 568793, formerly Permit to Operate G12863, A/N 518989. The current Permit to Construct was issued on March 6, 2015 to additionally allow for aboveground soil treatment activities at the Site which were completed in March 2017 (see Section 1.2.5 for further details). Active SVE wells associated with the system are identified in Section 3.2 and Table 8.

1.2.2.2 Thermal Oxidizer Vapor Extraction System

A temporary thermal oxidizer VES operated from January 8, 2018. The temporary thermal oxidizer VES was intended to treat vapors associated with the relatively high concentration SVE wells that were originally tied into the carbon VES, as discussed in SGI's May 15, 2018 *Remediation Status Report - First Quarter 2018*. These high concentration SVE wells were connected to the carbon VES in late June and early August 2017. Additional wells in the Southern Area of the Site (RW-34 through RW-50) were brought online to the temporary thermal oxidizer VES in June 2018. The system was shut down on January 8, 2019 to comply with the SCAQMD Various Locations Permit F97121 which limited the operational period to one calendar year.

The permanent full-scale thermal oxidizer VES was installed and tested. The gas meter was installed in mid-February 2019, and the natural gas line was activated on February 26, 2019. The system manufacturer's service technicians (Baker Furnace) conducted the initial system equipment testing on March 4, 2019 and system startup began on March 13, 2019.

Soil vapors from the thermal oxidizer VES knockout tank are heated to a minimum temperature of 1,400 °F prior to atmospheric discharge from a 25-foot tall stack. Operation of the thermal oxidizer VES is conducted in accordance with SCAQMD Permit to Construct/Operate G52288, A/N 602424. The SCAQMD Rule 1166 notification form for SVE system startup was provided to SCAQMD on March 13, 2019. Active SVE wells associated with the thermal oxidizer systems are identified in Section 3.2 and Tables 4A through 4C.

1.2.3 Biosparge System

The biosparge wells for hydrocarbon removal from dissolved-phase subsurface impacts are located in areas throughout the Site. The biosparge system was off-line pending completion of soil cleanup activities per SGI's January 2018 *Shallow Soil Closure Report*. System recommissioning work was

completed during 4th quarter 2018 in accordance with SGI's June 30, 2017 *Remediation Well Installation Update Report*, and July 11, 2018 *Well Installation Completion Report*. The recommissioned biosparge system includes 109 biosparge wells (Table 1) connected to the system via 11 total air supply trunklines. Injection air is supplied to the wells by a rotary claw compressor and cooled by a heat exchanger before delivery to the wells via the active air supply trunkline. The trunklines are connected to a common manifold and injection air is controlled by solenoids on each trunkline. The injection cycle duration and frequency are controlled by timers and total injection duration is recorded by hour meters for each trunkline. Biosparge system shakedown testing was conducted in late December 2018, and system operation resumed in early 2019.

1.2.4 LNAPL Removal

LNAPL removal at the site is accomplished via both physical and automated processes. Select wells are gauged for floating product approximately once every two weeks, and product removal is conducted via manually bailing, active pumping using a portable product skimmer and/or by utilizing absorbent socks installed based on the measured LNAPL thickness in each target well.

An automated product recovery system connected to wells located in the north-central portion of the site has also operated since August 2016. LNAPL removal wells are identified in Sections 3.3 and 3.4 and Tables 5A through 5T. A map showing the April 2019 extent of measurable LNAPL is presented in Figure 3.

1.2.5 Aboveground Soil Treatment

Per SGI's May 1, 2015 *Remediation Status Report - First Quarter 2015*, the excavation of impacted vadose zone soils at the Site began during January 2015. Treatment was achieved via the construction of soil biopiles that were connected to the carbon VES for SCAQMD permit compliance purposes. Biopile operations, maintenance and monitoring (OM&M) continued until March 20, 2017 after a final phase of limited additional cross-trenching and excavation work with the remaining treatment cells being subsequently disconnected and brought online April 24, 2015 following the completion of aboveground treatment cell construction activities.

From January 2015 through March 2017, a total estimated volume of 67,574 cubic yards of petroleum hydrocarbon contaminated soil was excavated at the Site to depths up to 35 feet below ground surface. The goal of this remediation was to clean up source area soils that contributed to the degradation of groundwater and ready the real property of the Site for eventual conveyance. Details associated with the OM&M of the biopiles are provided in prior remediation status reports. Further details regarding treatment cell construction and excavated soil cleanup activities are provided in SGI's January 2018 *Shallow Soil Closure Report* and September 2018 *Addendum to the Shallow Soil Closure Report – Western Portion*. The RWQCB granted a no further action (NFA) determination for the shallow soil in the upper 10 feet of the Site's eastern 15-acre parcel on April 19, 2018. The NFA determination was contingent upon declaration of covenant and environmental restriction, which was recorded on September 27, 2018. Regulatory closure of shallow soil in the western part of the Site is pending.

1.2.6 Soil Management

The RWQCB previously approved the March 8, 2012 *Onsite Soil Management Plan* prepared and amended by Parsons Corporation (Parsons May 2012 *Response to April 10, 2012 RWQCB Comments on Onsite Soil Management Plan*). Both documents and the RWQCB approval (February 26, 2014) specified the number of samples and analytical requirements. Soil generated from trenching and drilling operations at the Site was tested according to that approved soil management plan protocol.

2.0 OPERATIONS, MAINTENANCE AND MONITORING

OM&M of the remediation systems included the following tasks:

- Installed sound blankets for the thermal oxidizer VES and the biosparge system. The thermal oxidizer VES began unrestricted operations (24/7) on August 26, 2019.
- Connected the newly installed horizontal wells (HW-8 and HW-9) to the carbon VES (the system is shut down pending installation of the new blower).
- Began vapor extraction from select central area wells as summarized in Table 9B.
- Performed minimum weekly maintenance and monitoring of the GWETS during operation (inactive during this period), carbon VES, thermal oxidizer VES, and the biosparge system.
- Collected and analyzed influent and effluent vapor samples from the carbon VES and thermal oxidizer VES.
- Performed weekly LNAPL removal from applicable wells via bailing, skimming and/or absorbent socks.
- Performed periodic gauging of wells connected to the product recovery system, along with adjusting associated pump cycle durations and frequencies to optimize LNAPL removal.
- Continued extraction efforts from wells with LNAPL and monitored for thicknesses of LNAPL sufficient to resume pumping in off-line wells.

Remediation system inspections were performed on a regular basis during operation. For these inspections, vapor flow rate, vacuum, volumes of extracted product, hours of operation, and other system parameters were recorded.

2.1 Groundwater Extraction and Treatment System

The GWETS was off-line during the reporting period pending approval of the sewer discharge permit application. System OM&M details and monthly performance results are summarized in Tables 2A, 2B and 2C.

A historical summary of influent water analytical sample results is provided in Table 6.

2.2 Soil Vapor Extraction Systems

The carbon VES system has been shut down since April 18, 2019 due to high outlet temperatures that reduced the blower performance. A new blower has been ordered and system restart will begin next quarter. System OM&M details and performance results are summarized in Tables 3A, 3B and 3C.

A temporary thermal oxidizer VES operated from January 8, 2018. The system was shut down on January 8, 2019 to comply with the SCAQMD Various Locations Permit which limited the operational period to one calendar year.

A thermal oxidizer VES was installed and startup was conducted on March 13, 2019. System operational hours were limited to daytime hours from July to mid-August due to ongoing noise concerns from nearby residents. Sound blankets were installed in August and the thermal oxidizer began unrestricted operation (24/7) on August 26, 2019. The thermal oxidizer is intended to treat vapors associated with the relatively high concentration SVE wells that were originally tied into the carbon VES, as discussed in SGI's May 15, 2018 *Remediation Status Report - First Quarter 2018*. All such wells that have since been installed and connected as part of ongoing remediation expansion activities at the Site have been tied into the thermal oxidizer to cost-effectively accelerate the overall remediation project. Compliance and/or performance soil vapor samples from the carbon and thermal oxidizer VESs were collected in Tedlar bags during the reporting period on July 10, August 5, and September 9, 2019. All vapor samples were delivered to Environmental Laboratory Accreditation Program (ELAP) accredited American Analytics for analysis.

The vapor samples were analyzed for the following:

- Total petroleum hydrocarbons quantified as gasoline (TPHg) using United States Environmental Protection Agency (EPA) Method 8015 Modified; and
- BTEX and MTBE using EPA Method 8260B.

Historical summaries of influent vapor analytical sampling results for the carbon VES and thermal oxidizer VES are provided in Tables 7 and 8, respectively. The laboratory analytical reports and chain-of-custody documents for the thermal oxidizer VES samples are included in Appendix A. As the Table 8 results indicate, thermal oxidizer VES concentrations have increased relative to the previous reporting period, likely due to volatilization induced by the biosparging operations that began in late December 2018. Maximum gasoline range organic (GRO), benzene and MTBE concentrations this period are 3,900 micrograms per liter ($\mu\text{g/L}$), 17 $\mu\text{g/L}$ and non-detect (ND) <2.0 $\mu\text{g/L}$, respectively. Maximum historic levels for these constituents were previously 2,500 $\mu\text{g/L}$ for GRO (September 2017) and 3.9 $\mu\text{g/L}$ for benzene (September 2017). MTBE has never been detected.

2.3 Biosparge System

The biosparge wells associated with the original system are located in areas throughout the central area and eastern boundary of the Site. As summarized on Table 1, several of these wells were abandoned to allow for the excavation of impacted soil from the area at or surrounding each respective well (see Sections 1.2.5 and 1.2.6) or were confirmed to be missing/destroyed during September 2016 field reconnaissance work.

Dual-nested SVE and biosparge wells RW-1 through RW-34 were installed during late June and early July 2017 with additional wells, RW-35 through RW-50 and TFB-1 through TFB-38, installed during November and December 2017 (Table 1). All of these wells were installed as part of ongoing remedial expansion activities to target impacts in the northeastern, central and former truck fueling areas of the Site (Figure 2) in accordance with SGI's March 14, 2017 *Well Replacement Report and*

Work Plan, June 30, 2017 Remediation Well Installation Update Report, and July 11, 2018 Well Installation Completion Report.

Conveyance piping installation activities concluded in October 2018, and the system equipment assembly was completed in early December 2018. System equipment shakedown testing was conducted in mid-December 2018, and preliminary system startup occurred during the week of December 24, 2018. System operation resumed in early 2019. Biosparge operations conducted during this quarter continued in the central area, the eastern area, and the southern area wells. Biosparge system OM&M details during this quarter are provided in Tables 11A through 11C.

2.4 LNAPL Removal Via Bailing, Skimming and Absorbent Socks

Depth to product (DTP) and depth to groundwater (DTW) were measured to the nearest 0.01 foot from the top of the well casing (TOC) using an interface probe in select monitoring wells approximately every two weeks during the reporting period. LNAPL was removed from select wells via manual bailing, active pumping using a portable product skimmer and by utilizing absorbent socks. Mass and volume removal estimates using these techniques are summarized in Tables 5A through 5C along with associated LNAPL gauging results. All product is placed in an AST located within the existing treatment compound.

2.5 LNAPL Removal Via Product Recovery System

The permitting and installation of the product recovery system was completed on August 8, 2016 at which time full-scale operations commenced. At this time, the system consists of six pneumatically activated product removal pumps deployed in key wells located in the north-central portion of the Site. Two additional pumps were procured during October 2017 in response to increasing LNAPL thickness trends from the prior quarter. In early October 2018, an additional eight product removal pumps were brought online, expanding the system capacity to allow operation of up to 16 product removal pumps simultaneously.

All pumped product is routed to an AST located within the existing treatment compound via double contained conveyance piping. The product stored in the AST is subsequently removed off-site by a licensed transport, recycling and disposal company. LNAPL removal is determined individually for wells with product removal pumps based on interpolating the total volume of product collected in the AST during a given quarter and periodically measuring the volume of LNAPL recovered per cycle for each pump (i.e., portion of total AST product volume assigned to each pump calculated from well-specific cycle duration and frequency values programmed on the basis of current gauging and yield data). Product recovery system OM&M continued through the current quarter with limited operation due to the decrease in LNAPL in wells. Product recovery system OM&M details during this quarter are provided in Tables 5D through 5T.

3.0 SUMMARY OF REMEDIATION PROGRESS

The following sections describe remedial progress at the Site.

3.1 Groundwater Extraction and Treatment System

The GWETS was off-line during the reporting period pending approval of the discharge permit application.

Based on the total petroleum hydrocarbons quantified as diesel (TPHd) results for influent water samples and total groundwater extracted, estimated 9,946 pounds of TPHd have been removed since April 1996 (Table 2C).

3.2 Soil Vapor Extraction Systems

The carbon VES system has been shut down since April 18, 2019 due to high outlet temperatures that reduced the blower performance. A new blower has been ordered and system restart will begin next quarter. Wells HW-1, HW-5, and HW-7 are connected to the carbon VES system. Well HW-3 has remained off-line after it was first determined to be yielding minimal flow during July 2017, and subsequently scoped and confirmed to be collapsed in two separate locations during November 2017. Flow and mass extraction testing were conducted on well HW-3 in December 2018, and results indicated very low vapor concentrations and minimal flow rate. The well was abandoned on June 7, 2019 and replaced with two new horizontal wells, HW-8 and HW-9. These two new wells were connected to the carbon VES.

During this quarter, wells TFR-21, TFR-26, TFR-27, TFR-28, TFR-34, TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW, TFR-24, TFR-30, TFR-33, TFR-29, TFR-17, TFR-18, RFR-19, TFR-22, TFR-13, TFR-14, TFR-15, TFR-16, TFR-7, TFR-9, TFR-12 (central area); RW-1, RW-18, RW-13, RW-4, RW-5, RW-9, RW-10 (eastern area); RW-23, RW-30, RW-31, RW-32, VEW-40, RW-26, RW-28, RW-24, RW-27, RW-33, RW-43, RW-22, RW-29, RW-45, RW-35, RW-40, RW-44, RW-36, RW-37, RW-41, RW-42, RW-47, RW-48, RW-49, RW-50 (southern area) were used as the extraction points for the thermal oxidizer VES based on field photoionization detector (PID) readings (Tables 9A through 9D) and previous quarters laboratory concentrations (Table 10).

The total mass of VOCs removed via the carbon and the thermal oxidizer extraction systems during this period was approximately 53,665 pounds (370 pounds via the carbon VES and 53,295 pounds via the thermal oxidizer VES). An estimated 2,982,775 pounds have been removed since April 1996 (Table 3C) via the carbon VES and approximately 68,419 pounds removed via the temporary and permanent thermal oxidizer VESs since January 2018 (Table 4C).

The relatively low mass of VOCs removed by the thermal oxidizer VES in July to mid-August is due in large part to the reduced overall uptime (Tables 4A, 4B and 4C) associated with the intermittent operations due to noise issues. Unrestricted system operations began on August 26, 2019 after the

installation of sound blankets. Note that the total estimated mass of VOCs removed via SVE does not account for any mass removed *in-situ* via biodegradation.

3.3 Biosparge System

Recommissioning of the biosparge system was completed during 4th quarter 2018, and system startup operations began in late December in the central area wells BSP-21 through BSP-24, -27, -25, -26, -28 through BSP-30; in mid-April 2019 in the eastern area wells BSP-10 thru 14, RW-4, RW-5, RW-9, RW-10, RW-11, RW-14, RW-18. On August 23, 2019, Sparging operations were phased into the southern area wells BSP-19, -20, RW-21, -23, -26, BSP-17, -18, RW-30, -31, -32, 34, BSP-15, -16, -RW-19, -20, -25, and -28.

3.4 LNAPL Gauging and Removal

During the reporting period, DTW and DTP were measured in Hollifield Park wells GMW-62, GMW-68, and onsite wells GMW-7, TF-19; TFR-9, GMW-18, TFR-12, TF-15, TFR-15, TF-16, GW-14R, TFR-22, TFR-24, TFR-29, TFR-33, RTF-18-E, RTF-18-NW, RTF-18-N, TF-18, RTF-18-NNW, RTF-18W (Tables 5A through 5T). Overall, LNAPL thickness and removal rates decreased in Q3 2019, attributed to rising groundwater.

A total of approximately 103 gallons (692 pounds) of LNAPL was removed from the Site during this quarter, and an estimated 9,914 gallons (67,275 pounds) of LNAPL has been removed since January 2014.

3.5 LNAPL Removal Via Bailing, Skimming and Absorbent Socks

Approximately 5.1 gallons (21 pounds) of LNAPL was removed via manual bailing, active pumping using a portable product skimmer and/or by utilizing absorbent socks from wells GMW-62, GMW-68, TF-19 (Tables 5A through 5C).

3.6 LNAPL Removal Via Product Recovery System

Wells TFR-9, GMW-18, TFR-12, TF-15, TFR-15, TF-16, GW-14R, TFR-22, TFR-24, TFR-29, and TFR-33, RTF-18-E, RTF-18-NW, RTF-18-N, TF-18, RTF-18-NNW and RTF-18-W were connected to an automated product recovery system which included 16 total active recovery pumps. Pumping resumed in well RTF-18E in early January 2019 and was taken back off-line in late February 2019 due to insufficient yield. Pumping resumed in September 2019. Well RTF-18-NNW has remained off-line due to insufficient yield since March 2018. Based on low LNAPL yields during initial testing from wells TFR-14, TFR-18, TFR-27, and GMW-45 conducted in early October 2018, skimmers have remained off-line since mid-October 2018. If LNAPL thicknesses increase, pumping may resume from these wells during the next reporting period.

Approximately 98 gallons (671 pounds) of LNAPL was pumped from wells TF-16, GW-14R, TFR-22, TFR-29 and RTF-18-E during the reporting period, with most LNAPL recovered from wells TFR-22 (109 lbs) and TFR-29 (226 lbs).

LNAPL gauging results along with cumulative mass and volume removal estimates are summarized in Tables 5D through 5T. As the tables indicate, product thicknesses decreased during the current reporting period. Consequently, wells TFR-22, TFR-29 and RTF-18-E were the only active pumping wells at the end of the reporting period.

4.0 REMEDIATION SYSTEMS EVALUATION AND OPTIMIZATION

Remedial system optimization activities are ongoing at the Site to help ensure effective cleanup operations. For the carbon VES, vapor-phase VOC concentrations from the horizontal wells (i.e., HW-1, HW-5 and HW-7 and newly installed wells HW-8 and HW-9) will be monitored and sampled.

For the thermal oxidizer VES, the following wells were used as the extraction points during this quarter: TFR-21, TFR-26, TFR-27, TFR-28, TFR-34, TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW, TFR-24, TFR-30, TFR-33, TFR-29, TFR-17, TFR-18, RFR-19, TFR-22, TFR-13, TFR-14, TFR-15, TFR-16, TFR-7, TFR-9, TFR-12 (central area); RW-1, RW-18, RW-13, RW-4, RW-5, RW-9, RW-10 (eastern area); RW-23, RW-30, RW-31, RW-32, VEW-40, RW-26, RW-28, RW-24, RW-27, RW-33, RW-43, RW-22, RW-29, RW-45, RW-35, RW-40, RW-44, RW-36, RW-37, RW-41, RW-42, RW-47, RW-48, RW-49, RW-50 (southern area).

Total system runtime for the thermal oxidizer VES during this reporting period was limited due to restricted operations to just daytime hours during the week and off-line each weekend from July to mid-August. Continuous thermal oxidizer VES operation began on August 26, 2019. Unrestricted system operations began on August 26, 2019 after the installation of sound blankets.

Reconfiguration of the respective vapor extraction systems will be conducted regularly to allow for cost-effective site-wide cleanup. Thus, as concentration levels in one or more currently high concentration wells decline to the point where carbon treatment becomes feasible, the well(s) will be progressively disconnected from the thermal oxidizer VES and tied into the carbon VES. Note that based on recent electrical load testing results, the existing service capacity will allow simultaneous full-time operation of both the carbon VES and the permanent full-scale thermal oxidizer along with the other remedial equipment. The utility planner continues to work on the design for the planned electrical upgrade and service relocation from its current location in the northeastern corner of the eastern 15-acre parcel.

SGI will continue to monitor individual well influent vapor concentrations associated with each existing VES and modify which extraction wells are online along with adjusting respective valve positions, as necessary.

Per the non-detect, stable, or declining dissolved groundwater analytical data from off-site wells (as illustrated in previous semiannual groundwater monitoring reports) and from the previous aquifer pump testing and groundwater capture zone analysis, the current GWETS with wells in the northwest corner of the site and the eastern area, along with natural attenuation, has been successful in preventing further impacted groundwater from flowing off site, and has captured and treated a significant portion of impacted groundwater under Holifield Park and in the northwest corner of the Site. The overall area of impacts and plumes were also similar to previous events.

GWE in the northwest corner of the site and in the eastern area will continue to assist with containment until further evaluation of natural attenuation is conducted. Additionally, absorbent sock installation and LNAPL recovery via pumping and/or manual bailing will continue along with full-scale

OM&M of the product recovery system. LNAPL recovery was sufficient to allow for pumping in wells TF-16, GW-14R, TFR-22, and TFR-29, and RTF-18-E. However, LNAPL recovery rates in the majority of active wells decreased significantly, attributed to rising groundwater (Tables 5D through 5T). Currently, wells TFR-22, TFR-29, RTF-18E are the only active pumping wells.

Up-to-date gauging data will continue to be collected during the next reporting period with rotating recovery operations being implemented on the basis of ongoing performance data. If warranted by the data, pumping will also resume in any locations where it was previously conducted.

For all active pumping wells, adjustments will continue to be made to the associated extraction frequency and duration of each pump cycle to help maximize LNAPL yields without isolating the well from the product plume. Future adjustments to all such wells may also be made on the basis of ongoing bail down testing conducted to establish current transmissivity values for correlating apparent to actual product thicknesses.

5.0 PLANNED FOURTH QUARTER 2019 ACTIVITIES

During the next reporting period, DLA Energy plans to continue to focus in-situ remedial efforts on the central area, eastern area, and southern area of the Site along with completing the remaining activities necessary to expand biosparge system operations to full-scale. Following is a summary of planned Fourth Quarter 2019 OM&M activities:

- Continue minimum weekly maintenance and monitoring of the thermal oxidizer VES. Tasks include measuring individual well vapor concentrations with an organic vapor analyzer (OVA) and collecting/analyzing monthly influent and effluent vapor samples.
- Collect individual extraction well vapor samples for laboratory analysis as needed. Vapor samples will be collected from horizontal wells and extraction wells.
- Replace the existing blower for the carbon VES and restart the system.
- Continue regular LNAPL gauging and removal activities (as applicable), including wells GWM-62 and GMW-68 (both located off site in Holifield Park), GMW-7, TF 19, and product recovery system wells TFR-9, GMW-18, TFR-12, TF-15, TFR-14, TFR-15, TF-16, GW-14R, TFR-18, TFR-22, TFR-24, TFR-29, TFR-33, RTF-18E, RTF-18-NW, RTF-18-N, RTF-18-NNW, RTF-18-W, TF-18, TFR-27, and GMW-45.
- Gauge wells TFR-17, TFR-19, TFR-32, TFR-30, TFR-5, TFR-7, TFR-21, and TFR-26 periodically as SVE is applied (via the thermal oxidizer VES) in order to evaluate any appearance and/or increase in LNAPL thicknesses and the potential for active/passive product recovery.
- Continue controlled product recovery system OM&M from wells TF-16, GW-14R, TFR-22, and TFR-29, and RTF-18-E, located in the north-central portion of the Site, with focused efforts in wells where LNAPL yields are the most significant.
- Continue to utilize the carbon VES for focused extraction from the relatively low concentration SVE wells to allow for reasonable carbon usage rates while achieving comprehensive site-wide vadose zone cleanup in conjunction with the new permanent thermal oxidizer VES (i.e., treatment of both relatively high and low concentration wells via the simultaneous use of both vapor abatement technologies).
- Continue the phased expansion of the permanent thermal oxidizer VES operations to cost-effectively process high vapor concentration (thermal mode above approximately 3,000 parts per million (ppm) to moderate concentration (catalytic mode from approximately 500 ppm to 3,000 ppm) well flows with any remaining low concentration (less than approximately 500 ppm) well flows being more cost-effectively treated via the existing GAC system.
- Continue to expand biosparge system operation in areas with dissolved impacts but no measurable in-well LNAPL (e.g. southern and north-central areas).

- Restart the GWETS pending approval of the sewer discharge permit application.

Ongoing remediation activities and progress will be described in the *Fourth Quarter 2019 Remediation Progress Report* to be submitted by February 15, 2020.

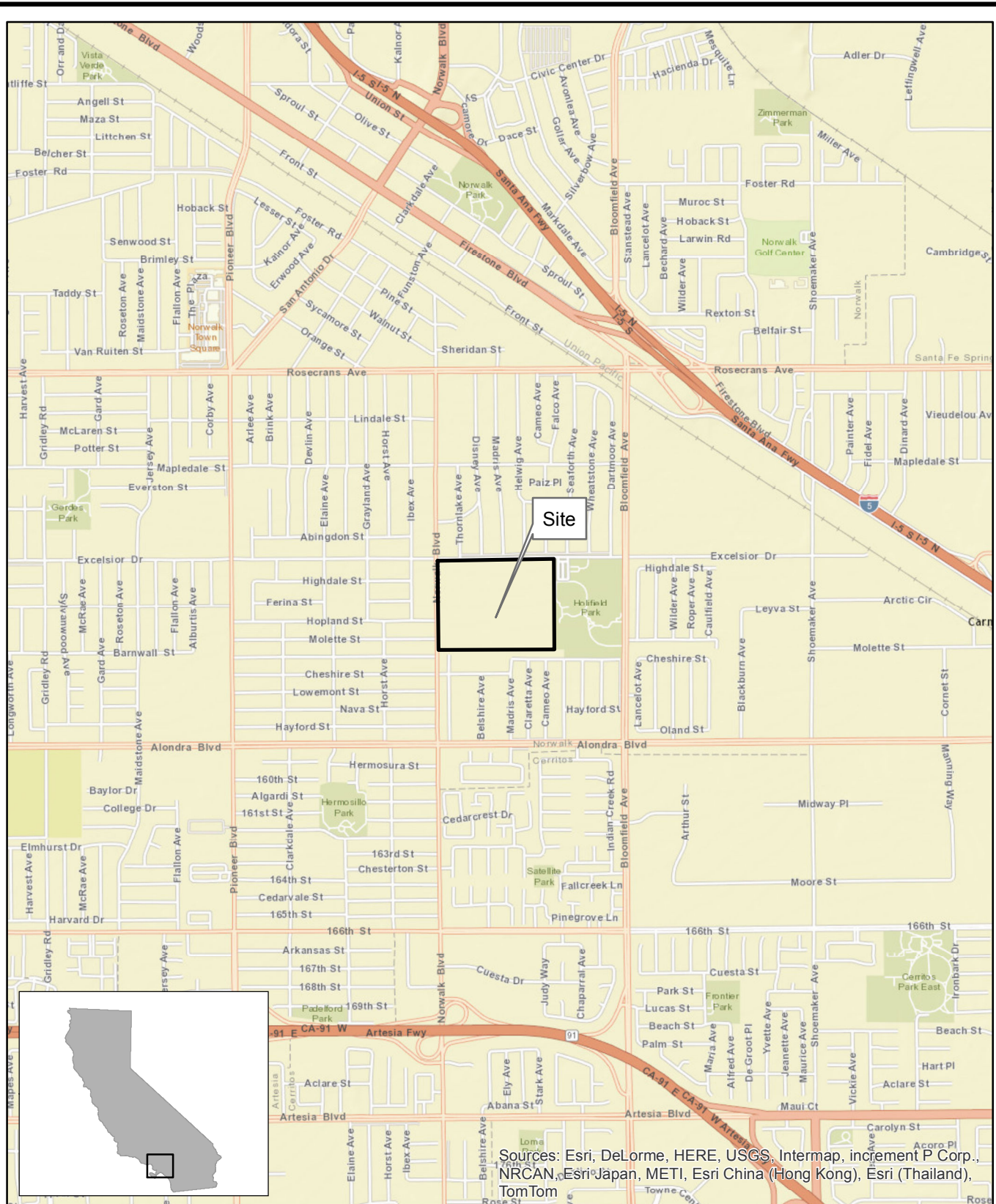
6.0 LIMITATIONS

This document was prepared for the exclusive use of the DLA Energy and the LARWQCB for the express purpose of complying with a client or regulatory directive for environmental investigation or restoration. SGI and DLA Energy must approve any re-use of this work product in whole or in part for a different purpose or by others in writing. If any such unauthorized use occurs, it shall be at the user's sole risk without liability to SGI or DLA Energy.

To the extent that this report is based on information provided to SGI by third parties, including DLA Energy, their direct contractors, previous personnel, and other stakeholders, SGI cannot guarantee the completeness or accuracy of this information, even where efforts were made to verify third-party information. SGI has exercised professional judgment to collect and present findings and opinions of a scientific and technical nature. The opinions expressed are based on the conditions of the Site existing at the time of the field investigation, current regulatory requirements, and any specified assumptions.

The presented findings and recommendations in this report are intended to be taken in their entirety to assist DLA Energy and LARWQCB personnel in applying their own professional judgment in making decisions related to the property. SGI cannot provide conclusions on environmental conditions outside the completed scope of work. SGI cannot guarantee that future conditions will not change and affect the validity of the presented conclusions and recommended work. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, conclusions, and recommendations.

FIGURES



Sources: Esri, DeLorme, HERE, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom

SOURCE:
ESRI 7.5 MINUTE TOPOGRAPHIC MAP.
<http://resources.esri.com/arcgisonline/services>

PROJECT NO.:	DATE:	DR. BY:	APP. BY:
04-NDLA-003	5/28/2014	JK	PP

SCALE= 1:24,000



FIGURE
1

SGI THE SOURCE GROUP, INC.
environmental
1962 FREEMAN AVENUE
SIGNAL HILL, CA 90755
(562) 597-1055

**DEFENSE FUEL SUPPORT POINT
NORWALK**
15306 NORWALK BOULEVARD
NORWALK, CALIFORNIA

SITE LOCATION MAP

Document Path: B:\DLA-Norwalk\GIS_Maps\Biosparging_2016-2017\Fig-2 All Well&Piping Connections_08012019_new.mxd

Excelsior Dr


























Norwalk Blvd

Powerline Basin

Tank

Tank

Legend

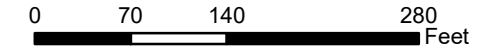
-  Former Above Ground Storage Tanks
-  DFSP Norwalk Border
-  Fence
-  Berm
-  Treatment System Enclosure
-  Below Grade Trenching and Piping to Remediation Wells
-  Existing Horizontal Vapor Extraction Wells
-  Below Grade Groundwater Extraction System Piping
-  Above Grade Groundwater Extraction System Piping
-  Product Recovery System Piping
-  Horizontal Vapor Extraction System Piping
-  Western Boundary of Eastern 15-Acre Parcel
-  System Manifold within Treatment Enclosure
-  Total Fluid and Groundwater Monitoring Wells
-  TF-18 Area LNAPL Recovery Wells
-  Biosparging Wells
-  Vapor Extraction Wells (November 2016)
-  Biosparging and Vapor Extraction Wells
-  Co-Located Total Fluid and Biosparge Wells
-  Vapor Extraction Wells (2004)
-  Sparging Points (August 2004)
-  Pull Box (for Wire or Tubing)
-  PVC Condensate Trap for Vapor Extraction Piping
-  Vapor Extraction System Control Vaults
-  Biosparge System Control Vaults



DFSP Norwalk

15306 Norwalk Boulevard
Norwalk, California

Project Number:	Date:	Drawn By:	Approved By:
091-NDLA-018	11/01/2019	PW / SM	BT

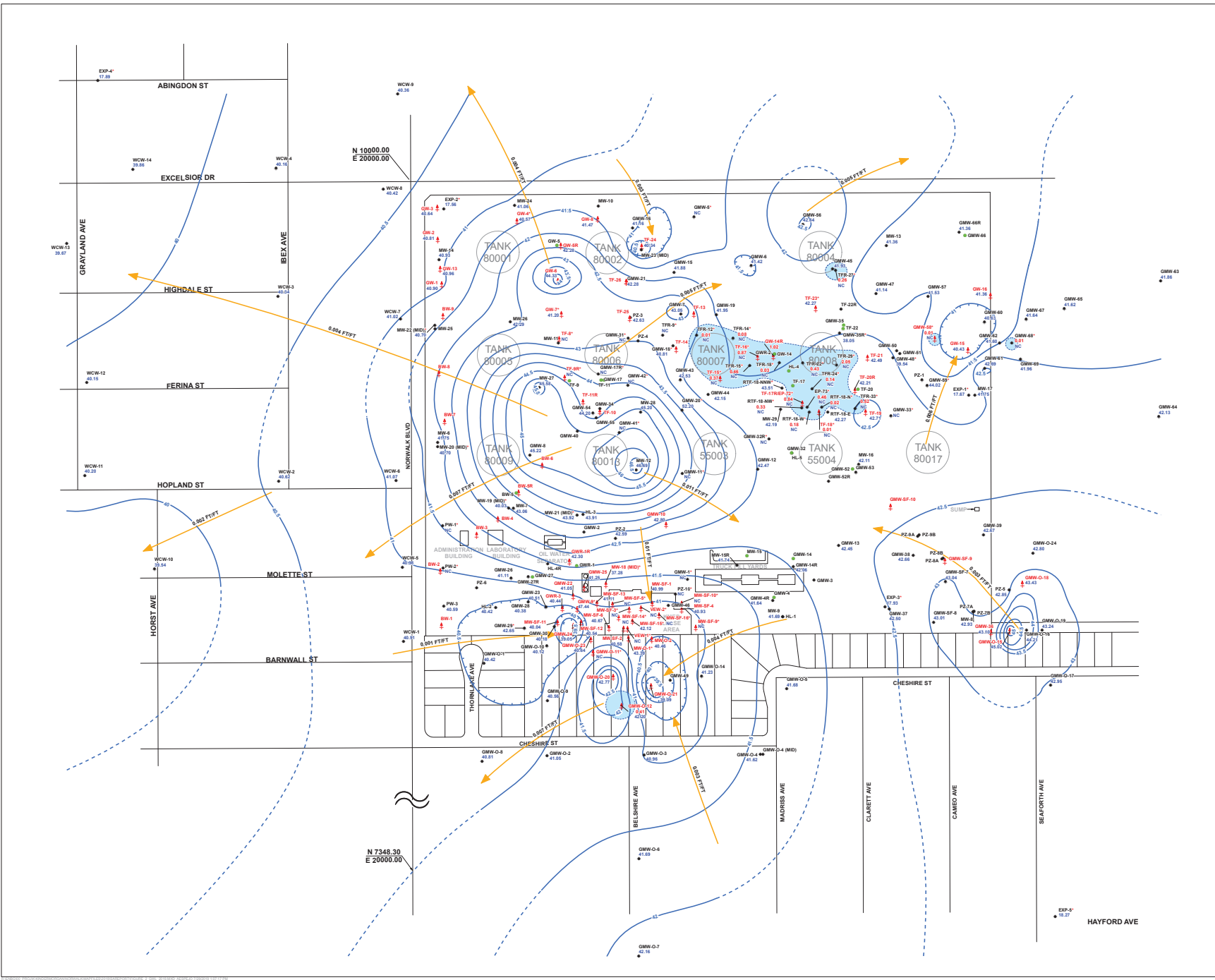


Site Map Showing All Well and Piping Locations



1962 Freeman Avenue
Signal Hill, CA 90755
(562) 597-1055

Figure
2



Explanation

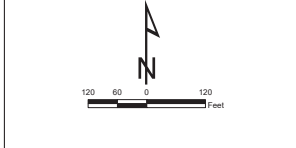
- GMW-5 ● Groundwater monitoring well
- VEW-1 ↑ Vapor extraction, groundwater extraction, total fluids, or free product extraction well used for site remediation
- GMW-47 ● Groundwater elevation in feet above mean sea level (MSL)
- GMW-36 ● 0.27 ↑ Apparent thickness of free product measured in well (feet), groundwater elevations calculated by removing product head effect.
- GMW-47' NC ● Groundwater elevation not used in contouring
- TF-17 ● Decommissioned well
- 43.0 - - - Lines of equal groundwater elevation showing groundwater elevation in feet above MSL (dashed where inferred)
- Estimated extent of measurable light nonaqueous phase liquid (LNAPL, free product) on groundwater, dashed where inferred
- Approximate direction of groundwater flow and estimated horizontal hydraulic gradient in foot/foot (ft/ft)

Notes

1. Groundwater elevations and product thicknesses shown at wells are based on data collected by SGI, Blaine Tech, and SPPP in April 2019.
2. SPPP and DLA's remediation systems were shut down approximately 1 week prior to collecting fluid level measurements in April 2019.
3. Wells screened in the Exposition aquifer or near the bottom of the uppermost aquifer, or with groundwater elevations that are inconsistent with surrounding groundwater elevations, are not used in contouring. Groundwater elevation contours are intended to represent generalized site-wide conditions and are interpreted from data collected by Blaine Tech. Wells with groundwater elevations not used in contouring are marked with a red asterisk (*).
4. NC = groundwater elevation could not be calculated because well was either dry during the monitoring event, not measured due to an obstruction or other access complication, or the casing elevation is not available.
5. Wells at which a groundwater elevation or "NC" qualifier is not supplied are not included in the Monitoring and Reporting Program and were not visited during this monitoring event.
6. Fuel storage tanks depicted on the figure are historical structures and have been removed from the site.

Survey Notes

1. Base map prepared from data provided by Fluor Daniel GTI, Dulin & Boynton, Geomatrix, and Parsons.
2. Except as noted below, well locations surveyed by Dulin & Boynton.
3. Locations of wells HL-3, and HL-4 based on field measurements by Fluor Daniel GTI and Woodward-Clyde.
4. Locations of wells BW-1 through BW-D surveyed by Geomatrix based on reference to other wells surveyed by Dulin & Boynton.
5. Locations of wells TFR-9, TFR-12, TFR-14, TFR-15, TFR-18, TFR-22, TFR-24, TFR-27, TFR-29, and TFR-33 based on field measurements by SGI.



GROUNDWATER ELEVATIONS AND MEASURABLE LIQUID-PHASE HYDROCARBONS IN UPPERMOST GROUNDWATER ZONE
 April 2019
 DEFENSE FUEL SUPPORT POINT NORWALK
 Norwalk, California

TABLES

TABLE 1
Remediation Well Summary
DFSP Norwalk
15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function
Central Area	Northwest Corner (AST 80001)	GW-1		06/12/95	75.97	63	25 - 60	GWE
		GW-2		06/12/95	75.78	63	25 - 60	GWE
		GW-3		06/13/95	75.79	63	25 - 60	GWE
		GW-4		06/12/95	75.78	63	25 - 60	GWE
		GW-13		04/26/07	76.85	67	25 - 65	GWE
		VEW-23		08/03/04	76.20	25	15 - 25	SVE
Central Area	North (AST 80002, AST 80004, AST 80006, AST 80007, AST 80008, AST 80001, AST 55004)	VEW-22	16	--	--	25	15 - 25	SVE
		HW-1	14	--	--	25	Continuous	SVE
		HW-3	14, 17, 18	--	--	25	Continuous	SVE
		HW-5	14	--	--	25	Continuous	SVE
		HW-7	14	--	--	25	Continuous	SVE
		HW-8	19	06/07/19	--	30	60	SVE
		HW-9	19	06/07/19	--	29	220	SVE
		GMW-21	1	08/02/91	76.23	50	25 - 50	TFE/GWE
		GW-14R	2	11/08/16	78.77	50	25 - 50	GWE
		SP8a	15	--	--	50	48 - 50	Biosparge
		SP-8b	15	--	--	50	48 - 50	Biosparge
		SP-11b	15	--	--	50	48 - 50	Biosparge
		SP-11c	15	--	--	50	48 - 50	Biosparge
		SP-13b	3, 15	--	--	50	48 - 50	Biosparge
		SP-13c	15	--	--	50	48 - 50	Biosparge
		SP-15	4, 15	--	--	50	48 - 50	Biosparge
		SP-16	15	--	--	50	48 - 50	Biosparge
		SP-24	15	--	--	50	48 - 50	Biosparge
		SP-24a	15	--	--	50	48 - 50	Biosparge
		SP-24b	15	--	--	50	48 - 50	Biosparge
		SP-25a	15	--	--	50	48 - 50	Biosparge
		SP-25b	15	--	--	50	48 - 50	Biosparge
		SP-25c	15	--	--	50	48 - 50	Biosparge
		SP-25d	15	--	--	50	48 - 50	Biosparge
		SP-26	15	--	--	50	48 - 50	Biosparge
		SP-26a	15	--	--	50	48 - 50	Biosparge
		TF-8		09/22/95	74.86	63	25 - 60	TFE, GWE
		TF-9	5	09/22/95	74.47	63	25 - 60	TFE, GWE
		TF-10		09/25/95	73.61	63	25 - 60	TFE, GWE
		TF-11	5	09/25/95	74.40	63	25 - 60	TFE, GWE
		TF-13		09/26/95	75.47	63	25 - 60	TFE, GWE
		TF-14		09/27/95	74.35	63	25 - 60	TFE, GWE
		TF-15		09/28/95	74.78	63	25 - 60	TFE, GWE
		TF-16		09/28/95	75.89	63	25 - 60	TFE, GWE
TF-17	6	09/29/95	74.88	63	25 - 60	TFE, GWE		
TF-18		07/06/94	73.75	50.5	20 - 50	TFE, GWE		
TF-19		10/03/95	75.07	63	25 - 60	TFE, GWE		
TF-20	7	10/03/95	75.08	63	25 - 60	TFE, GWE		
TF-21		09/29/95	74.96	63	25 - 60	TFE, GWE		
TF-22	8	10/02/95	74.76	63	25 - 60	TFE, GWE		

TABLE 1
Remediation Well Summary
DFSP Norwalk
15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function
Central Area	North (AST 80002, AST 80006, AST 80008, AST 55004)	TF-23		07/05/94	75.31	50.5	20 - 50	TFE, GWE
		TF-24	9	09/26/95	76.43	63	25 - 60	TFE, GWE
		TF-25		04/04/01	74.85	47	26 - 36	TFE, GWE
		TF-26		04/03/01	75.85	47	26 - 36	TFE, GWE
		RTF-18-N		12/28/15	75.17	40	25 - 40	TFE, GWE
		RTF-18-E		12/28/15	75.19	40	25 - 40	TFE, GWE
		RTF-18-W		12/28/15	74.86	40	25 - 40	TFE, GWE
		RTF-18-NW		12/29/15	76.22	40	25 - 40	TFE, GWE
		RTF-18-NNW		12/29/15	76.77	40	25 - 40	TFE, GWE
Central Area	North (AST 80002, AST 80004, AST 80006, AST 80007, AST 80008, AST 80013, AST 55003, AST 55004)	BSP-21	10	12/07/17	--	46	43 - 45	Biosparge
		BSP-22	10	12/07/17	--	46	43 - 45	Biosparge
		BSP-23	10	12/08/17	--	46	43 - 45	Biosparge
		BSP-24	10	12/07/17	--	46	43 - 45	Biosparge
		BSP-25	10	12/08/17	--	46	43 - 45	Biosparge
		BSP-26	10	12/08/17	--	46	43 - 45	Biosparge
		BSP-27	10	12/07/17	--	46	43 - 45	Biosparge
		BSP-28	10	12/07/17	--	46	43 - 45	Biosparge
		BSP-29	10	12/08/17	--	46	43 - 45	Biosparge
		BSP-30	10	12/11/17	--	46	43 - 45	Biosparge
		TFR-1	10	12/13/17	--	40	20 - 40	TFE, SVE
		TFR-2	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-3	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-4	10	12/13/17	--	40	20 - 40	TFE, SVE
		TFR-5	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-6	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-7	10	12/13/17	--	40	20 - 40	TFE, SVE
		TFR-8	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-9	10	12/13/17	--	40	20 - 40	TFE, SVE
		TFR-10	10	12/11/17	--	40	20 - 40	TFE, SVE
		TFR-11	10	12/11/17	--	40	20 - 40	TFE, SVE
		TFR-12	10	12/11/17	--	40	20 - 40	TFE, SVE
		TFR-13	10	12/15/17	--	40	20 - 40	TFE, SVE
		TFR-14	10	12/13/17	--	40	20 - 40	TFE, SVE
		TFR-15	10	12/14/17	--	40	20 - 40	TFE, SVE
		TFR-16	10	12/14/17	--	40	20 - 40	TFE, SVE
		TFR-17	10	12/14/17	--	40	20 - 40	TFE, SVE
		TFR-18	10	12/14/17	--	40	20 - 40	TFE, SVE
		TFR-19	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-20	10	12/15/17	--	40	20 - 40	TFE, SVE
		TFR-21	10	12/11/17	--	40	20 - 40	TFE, SVE
TFR-22	10	11/30/17	--	40	20 - 40	TFE, SVE		
TFR-23	10	11/29/17	--	40	20 - 40	TFE, SVE		
TFR-24	10	11/30/17	--	40	20 - 40	TFE, SVE		
TFR-25	10	11/30/17	--	40	20 - 40	TFE, SVE		
TFR-26	10	11/29/17	--	40	20 - 40	TFE, SVE		
TFR-27	10	11/29/17	--	40	20 - 40	TFE, SVE		
TFR-28	10	11/29/17	--	40	20 - 40	TFE, SVE		
TFR-29	10	11/29/17	--	40	20 - 40	TFE, SVE		
TFR-30	10	11/29/17	--	40	20 - 40	TFE, SVE		
TFR-31	10	11/29/17	--	40	20 - 40	TFE, SVE		

TABLE 1
Remediation Well Summary
DFSP Norwalk
15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function
		TFR-32	10	11/30/17	--	40	20 - 40	TFE, SVE
		TFR-33	10	11/28/17	--	40	20 - 40	TFE, SVE
		TFR-34	10	11/28/17	--	40	20 - 40	TFE, SVE
		TFR-35	10	11/29/17	--	40	20 - 40	TFE, SVE
		TFB-1	10	12/06/17	--	46	43 - 45	Biosparge
		TFB-2	10	12/05/17	--	46	43 - 45	Biosparge
		TFB-3	10	12/05/17	--	46	43 - 45	Biosparge
		TFB-4	10	12/06/17	--	46	43 - 45	Biosparge
		TFB-5	10	12/06/17	--	46	43 - 45	Biosparge
		TFB-6	10	12/05/17	--	46	43 - 45	Biosparge
		TFB-7	10	12/06/17	--	46	43 - 45	Biosparge
		TFB-8	10	12/05/17	--	46	43 - 45	Biosparge
Central Area	North (AST 80002, AST 80004, AST 80006, AST 80007, AST 80008, AST 80013, AST 55003, AST 55004)	TFB-9	10	12/04/17	--	46	43 - 45	Biosparge
		TFB-10	10	12/04/17	--	46	43 - 45	Biosparge
		TFB-11	10	12/04/17	--	50	48 - 50	Biosparge
		TFB-12	10	12/01/17	--	46	43 - 45	Biosparge
		TFB-13	10	12/01/17	--	46	43 - 45	Biosparge
		TFB-14	10	11/30/17	--	46	43 - 45	Biosparge
		TFB-15	10	11/27/17	--	46	43 - 45	Biosparge
		TFB-16	10	11/28/17	--	46	43 - 45	Biosparge
		TFB-17	10	11/28/17	--	46	43 - 45	Biosparge
		TFB-18	10	11/27/17	--	46	43 - 45	Biosparge
		TFB-19	10	11/28/17	--	46	43 - 45	Biosparge
		TFB-20	10	11/30/17	--	46	43 - 45	Biosparge
		TFB-21	10	11/27/17	--	46	43 - 45	Biosparge
		TFB-22	10	11/27/17	--	46	43 - 45	Biosparge
		TFB-23	10	11/28/17	--	46	43 - 45	Biosparge
		TFB-24	10	11/27/17	--	46	43 - 45	Biosparge
		TFB-25	10	11/27/17	--	46	43 - 45	Biosparge
		TFB-26	10	11/22/17	--	46	43 - 45	Biosparge
		TFB-27	10	11/21/17	--	46	43 - 45	Biosparge
		TFB-28	10	11/22/17	--	46	43 - 45	Biosparge
		TFB-29	10	11/27/17	--	46	43 - 45	Biosparge
		TFB-30	10	11/27/17	--	46	43 - 45	Biosparge
		TFB-31	10	11/21/17	--	46	43 - 45	Biosparge
		TFB-32	10	11/22/17	--	46	43 - 45	Biosparge
		TFB-33	10	11/27/17	--	46	43 - 45	Biosparge
		TFB-34	10	11/21/17	--	46	43 - 45	Biosparge
		TFB-35	10	11/27/17	--	46	43 - 45	Biosparge
		RW-35	10	11/15/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-36	10	11/15/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-37	10	11/16/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-38	10	11/16/17	--	33 / 47	13 - 33 / 44 - 46	SVE / Biosparge
		RW-47	10	11/17/17	--	33 / 47	13 - 33 / 44 - 46	SVE / Biosparge
RW-48	10	11/17/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
RW-49	10	11/16/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
RW-50	10	11/20/17	--	33 / 47	13 - 33 / 44 - 46	SVE / Biosparge		

TABLE 1
Remediation Well Summary
DFSP Norwalk
15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function	
Eastern Area	North	BSP-1	11	04/18/07	--	50	47 - 49	Biosparge	
		BSP-2	11	04/18/07	--	50	48 - 50	Biosparge	
		BSP-3	11	04/17/07	--	48	46 - 48	Biosparge	
		BSP-4	11	04/17/07	--	49	47 - 49	Biosparge	
		BSP-5	11	04/17/07	--	49.5	47 - 49	Biosparge	
		BSP-6	11	04/18/07	--	49	47 - 49	Biosparge	
		BSP-7	11	04/19/07	--	48	46 - 48	Biosparge	
		BSP-8	11	04/19/07	--	48	46 - 48	Biosparge	
		BSP-9	11	04/19/07	--	48	46 - 48	Biosparge	
		BSP-10	12	11/04/16	--	46.5	44 - 46	Biosparge	
		BSP-11	12	11/04/16	--	40	38 - 40	Biosparge	
		BSP-12	12	11/04/16	--	46.5	44 - 46	Biosparge	
		BSP-13	12	11/07/16	--	46.5	44 - 46	Biosparge	
		BSP-14	12	11/07/16	--	46.5	44 - 46	Biosparge	
		GMW-58		08/14/98		75.48	55	20 - 55	GWE
		GW-15		04/26/07		74.94	60.5	20.5 - 60.6	GWE
		GW-16		07/07/09		76.33	63	20.5 - 60.5	GWE
		RW-1	13	06/21/17	-- / --	35 / 46	15 - 35 / 43 - 45	SVE / Biosparge	
Eastern Area	North	RW-2	13	06/21/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge	
		RW-3	13	06/21/17	--	37 / 46	17 - 37 / 43 - 45	SVE / Biosparge	
		RW-4	13	06/22/17	--	34 / 46	14 - 34 / 43 - 45	SVE / Biosparge	
		RW-5	13	06/22/17	--	34 / 46	14 - 34 / 43 - 45	SVE / Biosparge	
		RW-6	13	06/27/17	--	37 / 46	17 - 37 / 43 - 45	SVE / Biosparge	
		RW-7	13	06/26/17	--	37 / 46	17 - 37 / 43 - 45	SVE / Biosparge	
		RW-8	13	06/28/17	--	38.5 / 46	18.5 - 38.5 / 43 - 45	SVE / Biosparge	
		RW-9	13	06/26/17	--	35 / 46	15 - 35 / 43 - 45	SVE / Biosparge	
		RW-10	13	06/22/17	--	34 / 46	14 - 34 / 43 - 45	SVE / Biosparge	
		RW-11	13	06/26/17	--	36 / 46	16 - 36 / 43 - 45	SVE / Biosparge	
		RW-12	13	06/23/17	--	34 / 46	14 - 34 / 43 - 45	SVE / Biosparge	
		RW-13	13	06/23/17	--	35 / 46	15 - 35 / 43 - 45	SVE / Biosparge	
		RW-14	13	06/23/17	--	34 / 46	14 - 34 / 43 - 45	SVE / Biosparge	
		RW-15	13	06/20/17	--	38 / 46	18 - 38 / 43 - 45	SVE / Biosparge	
		RW-16	13	06/20/17	--	34 / 46	14 - 34 / 43 - 45	SVE / Biosparge	
		RW-17	13	06/27/17	--	39 / 46	19 - 39 / 43 - 45	SVE / Biosparge	
		RW-18	13	06/20/17	--	38 / 46	18 - 38 / 43 - 45	SVE / Biosparge	
		SP-21a	3, 15	--	--	50	48 - 50	Biosparge	
		SP-21b	3, 15	--	--	50	48 - 50	Biosparge	
		VEW-32		04/11/07	--	25	10 - 25	SVE	
		VEW-33		04/11/07	--	25	10 - 25	SVE	
		VEW-34		04/11/07	--	25	10 - 25	SVE	
		VEW-35		04/10/07	--	25	10 - 25	SVE	
		VEW-36		04/10/07	--	25	10 - 25	SVE	
		VEW-37		40/10/07	--	25	10 - 25	SVE	
		TFR-36	10	11/30/17	--	40	20 - 40	TFE, SVE	
		TFR-37	10	11/28/17	--	40	20 - 40	TFE, SVE	
		TFR-38	10	11/28/17	--	40	20 - 40	TFE, SVE	
		TFB-36	10	11/20/17	--	46	43 - 45	Biosparge	
		TFB-37	10	11/21/17	--	46	43 - 45	Biosparge	
		TFB-38	10	11/20/17	--	46	43 - 45	Biosparge	

TABLE 1
Remediation Well Summary
DFSP Norwalk
15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function
Southern Area	Former Truck Fueling Area and Adjacent Water Tank Area	BSP-15	12	11/02/16	--	50.5	48 - 50	Biosparge
		BSP-16	12	11/03/16	--	50.5	48 - 50	Biosparge
		BSP-17	12	11/03/16	--	50.5	48 - 50	Biosparge
		BSP-18	12	11/03/16	--	50.5	48 - 50	Biosparge
		BSP-19	12	11/02/16	--	50.5	48 - 50	Biosparge
		BSP-20	12	11/01/16	--	50.5	48 - 50	Biosparge
		RW-19	13	06/30/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-20	13	06/29/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-21	13	06/30/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-22	13	06/28/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-23	13	06/30/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-24	13	06/28/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-25	13	06/28/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-26	13	07/03/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-27	13	06/28/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-28	13	07/03/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-29	13	06/29/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-30	13	06/27/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-31	13	07/03/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-32	13	07/03/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
RW-33	13	06/29/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
RW-34	13	07/03/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
Southern Area	Former Truck Fueling Area and Adjacent Water Tank Area	RW-39	10	11/15/17	--	33 / 47	13 - 33 / 44 - 46	SVE / Biosparge
		RW-40	10	11/15/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-41	10	11/14/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-42	10	11/14/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-43	10	11/14/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-44	10	11/13/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-45	10	11/13/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-46	10	11/13/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		VEW-31		08/03/04	75.10	15	5 - 15	SVE
		VEW-38	12	11/02/16	--	30.5	20 - 30	SVE
		VEW-39	12	11/03/16	--	30.5	20 - 30	SVE
		VEW-40	12	11/02/16	--	30.5	20 - 30	SVE
		VW-07	16	--	75.64	--	--	SVE
		VW-09	16	--	75.77	--	--	SVE
		VW-10		03/23/04	75.78	30.5	20 - 30	SVE
		VW-11		03/23/04	75.55	25	20 - 25	SVE
		VW-12		03/23/04	75.79	30.5	15 - 30	SVE
VW-13		03/23/04	75.42	29	25 - 29	SVE		
VW-14		03/23/04	75.89	28	15 - 28	SVE		
VW-15		04/14/04	75.45	30	20 - 30	SVE		
VW-16		04/14/04	75.29	30	20 - 30	SVE		

Legend/Notes :

ft msl = Feet above mean sea level
ft bgs = Feet below ground surface
AST = Aboveground storage tank
BSP = Biosparge
BS = Biosparge
HW = Horizontal Well
GW/GWE = Groundwater extraction
RTF = Recovery Total Fluids
RW = Recovery Well
SP = Sparge
SVE = Soil vapor extraction

TABLE 1
Remediation Well Summary
 DFSP Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function
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TF = Total fluid

TFE = Total fluid extraction

TFB = Total fluids biosparge

TFR = Total fluids recovery

VW/VEW = Vapor extraction well

-- = Information not available

1 = Also referred to as TF-24.

2 = Replaced abandoned well GW-14 per SGI's March 14, 2017 *Well Replacement Report and Work Plan*.

3 = Located during field reconnaissance work conducted on September 21, 2016 but determined to likely have silt at the bottom of the casing since the measured total depth was several feet higher than the construction well depth.

4 = Located during field reconnaissance work conducted on September 21, 2016 but determined to be inaccessible.

5 = Abandoned on December 29, 2014 (replacement pending per SGI's March 14, 2017 *Well Replacement Report and Work Plan*).

6 = Abandoned on December 30, 2014 (replacement pending per SGI's March 14, 2017 *Well Replacement Report and Work Plan*).

7 = Abandoned on January 5, 2015 (replacement pending per SGI's March 14, 2017 *Well Replacement Report and Work Plan*).

8 = Abandoned on December 31, 2014 (replacement pending per SGI's March 14, 2017 *Well Replacement Report and Work Plan*).

9 = Also referred to as "old TF-24" or "former TF-24".

10 = Recently installed per SGI's July 11, 2018 *Well Installation Completion Report*.

11 = Abandoned on November 16, 2017.

12 = Recently installed per SGI's March 14, 2017 *Well Replacement Report and Work Plan*.

13 = Recently installed per SGI's June 30, 2017 *Remediation Well Installation Update Report*.

14 = Well installed by Government Technology Services in September 1992; exact date unknown.

15 = Well installed by Parsons in October 1999; exact date unknown.

16 = Well installation date unknown.

17 = Confirmed to be inoperable in October 2017 (well plugged)..

18 = Well abandoned in-place on 6/7/19 and 6/10/19 and replaced with new horizontal wells HW-8 and HW-9

19 = Total well length is 340-feet for horizontal well HW-8 and 500-feet for HW-9.

TABLE 2A
Groundwater Extraction and Treatment System Operations Summary - July
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	GW-2 Totalizer Reading (gallons)	GW-13 Totalizer Reading (gallons)	GW-15 Totalizer Reading (gallons)	GW-16 Totalizer Reading (gallons)	Groundwater Extracted from North-East Area (gallons)	Groundwater Extracted from North-West Area (gallons)	NPDES Discharge Totalizer Reading (gallons)	Groundwater Extracted and Treated Per Day (gallons)	Influent DRO (ug/L)	Cumulative DRO Removed ^A (lb)
7/1/19	Off line	1	314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/2/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/3/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/4/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/5/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/6/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/7/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/8/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/9/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/10/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/11/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/12/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/13/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/14/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/15/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/16/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/17/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/18/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/19/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/20/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/21/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/22/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/23/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/24/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/25/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/26/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/27/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/28/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/29/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
7/30/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946

Cumulative Groundwater Discharged by the GWETS to Date (gallons)							
Period	July	Quarter 1, 2019	Quarter 2, 2019	Quarter 3, 2019	Quarter 4, 2019	2019 to Date	April 1996 to Date
Volume	0	126,436	0	--	--	126,436	79,414,388

Cumulative Mass DRO Removed by the GWETS ^A (lb)			
Period	July	Quarter 3 to Date	April 1996 to Date
Mass	0	0	9,945.9

$$\text{Liquid-Phase DRO Mass [lb]} = \left(\text{Conc.} \left[\frac{\mu\text{g}}{\text{L}} \right] \right) \cdot \left(\frac{3,785 \text{ L}}{\text{gal}} \right) \cdot \left(\frac{1 \text{ g}}{1,000,000 \mu\text{g}} \right) \cdot \left(\frac{1 \text{ lb}}{453.59 \text{ g}} \right) \cdot (\text{Volume [gal]})$$

Legend / Notes:

1 = GWETS off-line the entire month pending approval of the sewer discharge permit by the Los Angeles County Sanitation District.

GWETS = Groundwater extraction and treatment system
 ug/L - Micrograms per liter

lb = Pounds
 DRO = Diesel range organics

Groundwater extraction wells on line this month: Off-line

A = Hydrocarbon removal is calculated using analytical laboratory result for DRO (if not detected, half the detection limit used) from sample collected on: Off-line
 -- = Not applicable

TABLE 2B
Groundwater Extraction and Treatment System Operations Summary - August
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	GW-2 Totalizer Reading (gallons)	GW-13 Totalizer Reading (gallons)	GW-15 Totalizer Reading (gallons)	GW-16 Totalizer Reading (gallons)	Groundwater Extracted from North-East Area (gallons)	Groundwater Extracted from North-West Area (gallons)	NPDES Discharge Totalizer Reading (gallons)	Groundwater Extracted and Treated Per Day (gallons)	Influent DRO (ug/L)	Cumulative DRO Removed ^A (lb)
8/1/19	Off line	1	314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/2/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/3/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/4/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/5/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/6/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/7/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/8/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/9/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/10/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/11/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/12/19	Off line		314,397	136,007	607,406	760,833	1,474,341	450,404	1,001,681	0	--	9,946
8/13/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/14/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/15/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/16/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/17/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/18/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/19/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/20/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/21/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/22/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/23/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/24/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/25/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/26/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/27/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/28/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/29/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/30/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
8/31/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946

Cumulative Groundwater Discharged by the GWETS (gallons)							
Period	August	Quarter 1, 2019	Quarter 2, 2019	Quarter 3, 2019	Quarter 4, 2019	2019 to Date	April 1996 to Date
Volume	0	126,436	0	--	--	126,436	79,414,388

Cumulative Mass DRO Removed by the GWETS ^A (lb)			
Period	August	Quarter 3 to Date	April 1996 to Date
Mass	0	0	9,945.9

$$Liquid-Phase\ DRO\ Mass\ [lb] = \left(Conc. \left[\frac{\mu g}{L} \right] \right) \cdot \left(\frac{3.785\ L}{gal} \right) \cdot \left(\frac{1\ g}{1,000,000\ \mu g} \right) \cdot \left(\frac{1\ lb}{453.59\ g} \right) \cdot (Volume\ [gal])$$

Legend / Notes:

1 = GWETS off-line the entire month pending approval of the sewer discharge permit by the Los Angeles County Sanitation District.

GWETS = Groundwater extraction and treatment system
 µg/L - Micrograms per liter

lb = Pounds
 DRO = Diesel range organics

Groundwater extraction wells on line this month: Off-line

A = Hydrocarbon removal is calculated using analytical laboratory result for DRO (if not detected, half the detection limit used) from sample collected on: Off-line
 -- = Not applicable

TABLE 2C
Groundwater Extraction and Treatment System Operations Summary - September
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	GW-2 Totalizer Reading (gallons)	GW-13 Totalizer Reading (gallons)	GW-15 Totalizer Reading (gallons)	GW-16 Totalizer Reading (gallons)	Groundwater Extracted from North-East Area (gallons)	Groundwater Extracted from North-West Area (gallons)	NPDES Discharge Totalizer Reading (gallons)	Groundwater Extracted and Treated Per Day (gallons)	Influent DRO (ug/L)	Cumulative DRO Removed ^A (lb)
9/1/19	Off line	1	314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/2/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/3/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/4/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/5/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/6/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/7/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/8/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/9/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/10/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/11/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/12/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/13/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/14/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/15/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/16/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/17/19	Off line		293,114	113,804	607,406	796,262	1,474,341	450,404	1,001,681	0	--	9,946
9/18/19	Off line		314,397	136,007	607,406	798,740	1,474,341	450,404	1,001,681	0	--	9,946
9/19/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/20/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/21/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/22/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/23/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/24/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/25/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/26/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/27/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/28/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/29/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946
9/30/19	Off line		314,397	136,007	607,406	866,935	1,474,341	450,404	1,001,681	0	--	9,946

Cumulative Groundwater Discharged by the GWETS (gallons)							
Period	September	Quarter 1, 2019	Quarter 2, 2019	Quarter 3, 2019	Quarter 4, 2019	2019 to Date	April 1996 to Date
Volume	0	126,436	0	--	--	126,436	79,414,388

Cumulative Mass DRO Removed by the GWETS ^A (lb)			
Period	September	Quarter 3 to Date	April 1996 to Date
Mass	0	0	9,945.9

$$Liquid-Phase\ DRO\ Mass\ [lb] = \left(Conc. \left[\frac{\mu g}{L} \right] \right) \bullet \left(\frac{3.785\ L}{gal} \right) \bullet \left(\frac{1\ g}{1,000,000\ \mu g} \right) \bullet \left(\frac{1\ lb}{453.59\ g} \right) \bullet (Volume\ [gal])$$

Legend / Notes:

1 = GWETS off-line the entire month pending approval of the sewer discharge permit by the Los Angeles County Sanitation District.

Groundwater extraction wells on line this month: Off-line

GWETS = Groundwater extraction and treatment system
 µg/L - Micrograms per liter

lb = Pounds
 DRO = Diesel range organics

A = Hydrocarbon removal is calculated using analytical laboratory result for DRO (if not detected, half the detection limit used) from sample collected on: Off-line

-- = Not applicable

TABLE 3A
Carbon Vapor Extraction System Operations Summary - July
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow ^A (scfm)	VES Manifold Vacuum (in. Hg)	Carbon Inlet Temperature (°F)	Laboratory Process Concentration (ppmv)	Field Process Concentration ^{B,C} (ppmv)	Field Effluent Concentration ^{B,C} (ppmv)	Cumulative Vapor-Phase GRO Removed ^D (lb)
07/01/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/02/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/03/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/04/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/05/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/06/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/07/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/08/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/09/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/10/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/11/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/12/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/13/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/14/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/15/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/16/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/17/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/18/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/19/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/20/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/21/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/22/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/23/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/24/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/25/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/26/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/27/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/28/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/29/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/30/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
07/31/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775

Cumulative Mass TPHg Removed by the VES ^D (lb)			
Period	July	Quarter 3 to Date	April 1996 to Date
Mass	0	0	2,982,775

$$Vapor-Phase TPHg Mass [lb] = \left(Conc. \left[\frac{\mu g}{L} \right] \right) \left(\frac{28.32 L}{ft^3} \right) \left(\frac{1 g}{1,000,000 \mu g} \right) \left(\frac{1 lb}{453.59 g} \right) \left(Flow [scfm] \right) \left(\frac{60 min}{hr} \right) \left(OpTime [hrs] \right)$$

Legend / Notes:

- 1 = Measured individual well vapor concentrations with a calibrated organic vapor analyzer.
- 2 = Collected monthly influent, after GAC-1, after GAC-2, and effluent samples for laboratory analysis.
- 3 = System shutdown pending replacement of GAC-2 outlet hose.
- 4 = System shutdown pending replacement of Blower.

* = Operational values interpolated from chart recorder data or previous monitoring event.
 -- = Not applicable or not measured

- VES = Soil vapor extraction system
- in. Hg = Inches of mercury
- ppmv = Parts per million by volume
- scfm = Standard cubic feet per minute
- °F = Degrees Fahrenheit
- lb = Pounds
- A = Reading from chart recorder.
- B = Concentrations obtained with a calibrated organic vapor analyzer.
- C = Concentrations correlated to laboratory data and expressed as hexane.
- D = Hydrocarbon removal is calculated using analytical laboratory result for GRO (if not detected, half the detection limit is used)

TABLE 3B
Carbon Vapor Extraction System Operations Summary - August
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow ^A (scfm)	VES Manifold Vacuum (in. Hg)	Carbon Inlet Temperature (°F)	Laboratory Process Concentration (ppmv)	Field Process Concentration ^{B,C} (ppmv)	Field Effluent Concentration ^{B,C} (ppmv)	Cumulative Vapor-Phase GRO Removed ^D (lb)
08/01/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/02/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/03/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/04/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/05/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/06/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/07/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/08/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/09/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/10/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/11/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/12/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/13/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/14/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/15/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/16/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/17/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/18/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/19/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/20/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/21/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/22/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/23/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/24/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/25/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/26/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/27/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/28/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/29/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/30/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
08/31/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775

Cumulative Mass TPHg Removed by the VES ^A (lb)			
Period	August	Quarter 3 to Date	April 1996 to Date
Mass	0	0	2,982,775

$$Vapor-Phase\ TPHg\ Mass\ [lb] = \left(Conc. \left[\frac{\mu g}{L} \right] \right) \cdot \left(\frac{28.32\ L}{ft^3} \right) \cdot \left(\frac{1\ g}{1,000,000\ \mu g} \right) \cdot \left(\frac{1\ lb}{453.59\ g} \right) \cdot (Flow\ [scfm]) \cdot \left(\frac{60\ min}{hr} \right) \cdot (OpTime\ [hrs])$$

Legend / Notes:

- 1 = Measured individual well vapor concentrations with a calibrated organic vapor analyzer.
- 2 = Collected monthly influent, after GAC-1, after GAC-2, and effluent samples for laboratory analysis.
- 3 = VES temporarily off-line to conduct carbon change out fieldwork.
- 4 = System shutdown pending replacement of Blower.

-- = Not applicable or not measured

* = Operational values interpolated from chart recorder data or previous monitoring event.

- VES = Soil vapor extraction system
- scfm = Standard cubic feet per minute
- A = Reading from chart recorder.
- B = Concentrations obtained with a calibrated organic vapor analyzer.
- C = Concentrations correlated to laboratory data and expressed as hexane.
- D = Hydrocarbon removal is calculated using analytical laboratory results for GRO (if not detected, half the detection limit is used)
- in. Hg = Inches of mercury
- °F = Degrees Fahrenheit
- ppmv = Parts per million by volume
- lb = Pounds

TABLE 3C
Carbon Vapor Extraction System Operations Summary - September
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow ^A (scfm)	VES Manifold Vacuum (in. Hg)	Carbon Inlet Temperature (°F)	Laboratory Process Concentration (ppmv)	Field Process Concentration ^{B,C} (ppmv)	Field Effluent Concentration ^{B,C} (ppmv)	Cumulative Vapor-Phase GRO Removed ^D (lb)
09/01/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/02/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/03/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/04/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/05/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/06/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/07/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/08/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/09/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/10/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/11/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/12/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/13/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/14/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/15/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/16/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/17/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/18/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/19/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/20/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/21/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/22/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/23/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/24/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/25/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/26/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/27/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/28/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/29/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775
09/30/19	Off line	4	57,763	NA	--	--	--	--	--	2,982,775

Cumulative Mass TPHg Removed by the VES ^A (lb)			
Period	September	Quarter 3 to Date	April 1996 to Date
Mass	0	0	2,982,775

$$Vapor-Phase\ TPHg\ Mass\ [lb] = \left(Conc. \left[\frac{\mu g}{L} \right] \right) \cdot \left(\frac{28.32\ L}{ft^3} \right) \cdot \left(\frac{1\ g}{1,000,000\ \mu g} \right) \cdot \left(\frac{1\ lb}{453.59\ g} \right) \cdot (Flow\ [scfm]) \cdot \left(\frac{60\ min}{hr} \right) \cdot (OpTime\ [hrs])$$

Legend / Notes :

- 1 = Measured individual well vapor concentrations with a calibrated organic vapor analyzer.
- 2 = Collected monthly influent, after GAC-1, after GAC-2, and effluent samples for laboratory analysis.
- 3 = VES temporarily off-line to conduct carbon change out fieldwork.
- 4 = System shutdown pending replacement of Blower.

-- = Not applicable or not measured

* = Operational values interpolated from chart recorder data or previous monitoring event.

Vapor extraction wells on line this month: HW-1, HW-5, HW--7

- VES = Soil vapor extraction system
- in. Hg = Inches of mercury
- ppmv = Parts per million by volume
- scfm = Standard cubic feet per minute
- °F = Degrees Fahrenheit
- lb = Pounds
- A = Reading from chart recorder.
- B = Concentrations obtained with a calibrated organic vapor analyzer.
- C = Concentrations correlated to laboratory data and expressed as hexane.
- D = Hydrocarbon removal is calculated using analytical laboratory results for GRO (if not detected, half the detection limit is used)

TABLE 4A
Thermal Oxidizer Vapor Extraction System Operations Summary - July
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow ^A (scfm)	VES Manifold Vacuum (in. WC)	Oxidizer Inlet Temperature TE1 Excess Controller (°F)	Laboratory Process GRO Concentration (ppmv)	Field Inlet Process Oxidizer Concentration ^{B,C} (ppmv)	Field Effluent Concentration ^{B,C} (ppmv)	Cumulative Vapor-Phase GRO Removed ^D (lb)
07/01/19	*		736	1,085	--	--	--	--	--	1,688
07/02/19	Technician		744	952	55	1,450	--	596	6.5	1,935
07/03/19	*		750	952	--	--	--	--	--	2,120
07/04/19	*		756	952	--	--	--	--	--	2,306
07/05/19	*		762	952	--	--	--	--	--	2,492
07/06/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
07/07/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
07/08/19	*		781	952	--	--	--	--	--	3,049
07/09/19	*		787	952	--	--	--	--	--	3,234
07/10/19	Technician	2	793	963	54	1448	2,100	11,065	24	3,422
07/11/19	*		799	963	--	--	--	--	--	3,594
07/12/19	*		804	963	--	--	--	--	--	3,766
07/13/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
07/14/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
07/15/19	Technician		821	974	54	1,451	--	13,260	23	4,287
07/16/19	*		828	974	--	--	--	--	--	4,513
07/17/19	*		836	974	22	1,453	--	2,656	34	4,739
07/18/19	*		843	974	--	--	--	--	--	4,965
07/19/19	*		850	974	--	--	--	--	--	5,191
07/20/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
07/21/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
07/22/19	Technician		872	949	54	1,450	--	4,681	20	5,851
07/23/19	*		881	949	--	--	--	--	--	6,125
07/24/19	*		890	949	--	--	--	--	--	6,399
07/25/19	*		899	949	--	--	--	--	--	6,673
07/26/19	*		908	949	--	--	--	--	--	6,948
07/27/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
07/28/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
07/29/19	*		936	949	--	--	--	--	--	7,770
07/30/19	*		945	949	--	--	--	--	--	8,044
07/31/19	*		954	949	--	--	--	--	--	8,318

Cumulative Mass TPHg Removed by the VES ^D (lb)			
Period	July	Quarter 3 to Date	January 2018 to Date
Mass	1,130.2	1,130.2	16,159

Legend / Notes:

1 = Thermal oxidizer manually shut down for weekend. System operational from 7am to 8pm.
 2 = Collected monthly influent and effluent samples for laboratory analysis.

System operating under SCAQMD Permit #G52288

Vapor extraction wells on line this month (grouped by location):

Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15, TFR-16), (TRF-5, TFR-7, TFR-9, TFR-10, TFR-12); Eastern Area - (RW-1, RW-11, RW-18, RW-13, RW-4, RW-5, RW-9, RW-10, TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Southern Area - (RW-23, RW-30, RW-31, RW-32, VEW-40, RW-26, RW-28, RW-24, RW-27, RW-33, RW-43, RW-22, RW-29, RW-45, RW-35, RW-40, RW-44, RW-36, RW-37, RW-41, RW-42, RW-47, RW-48, RW-49, RW-50).

VES = Soil vapor extraction system
 scfm = Standard cubic feet per minute
 ppmv = Parts per million by volume

in. Hg = Inches of mercury
 °F = Degrees Fahrenheit
 lb = Pounds

VECV = Vapor extraction control vault

A = Reading measured using Dwyer DS-300 flow sensor.

B = Concentrations obtained with a calibrated organic vapor analyzer.

C = Concentrations correlated to laboratory data and expressed as hexane.

D = Hydrocarbon removal is calculated using analytical laboratory result for GRO (if not detected, half the detection limit is used) from samples collected on: 7/10/19 (laboratory report attached). Does not include hydrocarbons removed by the temporary Thermal Oxidizer (see 'January 2018 to Date' entry for combined total).

NA = Not available

-- = Not applicable or not measured

* = Operational values interpolated from chart recorder data or previous monitoring event.

TABLE 4B
Thermal Oxidizer Vapor Extraction System Operations Summary - August
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow ^A (scfm)	VES Manifold Vacuum (in. WC)	Oxidizer Inlet Temperature TE1 Excess Controller (°F)	Laboratory Process GRO Concentration (ppmv)	Field Inlet Process Oxidizer Concentration ^{B,C} (ppmv)	Field Effluent Concentration ^{B,C} (ppmv)	Cumulative Vapor-Phase GRO Removed ^D (lb)
08/01/19	*		963	949	--	--	--	--	--	11,866
08/02/19	*		972	949	--	--	--	--	--	12,220
08/03/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
08/04/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
08/05/19	Technician	2	999	981	54	1,454	2,700	1,932	22	NA
08/06/19	*		1009	981	--	--	--	--	--	12,640
08/07/19	*		1020	981	--	--	--	--	--	13,059
08/08/19	*		1030	981	--	--	--	--	--	13,479
08/09/19	*		1041	981	--	--	--	--	--	13,898
08/10/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
08/11/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
08/12/19	*		1072	981	--	--	--	--	--	15,156
08/13/19	Technician		1082	1,008	56	1,455	--	2,190	21	15,587
08/14/19	*		1090	1,008	--	--	--	--	--	15,933
08/15/19	*		1099	1008	--	--	--	--	--	16,279
08/16/19	*		1107	1008	--	--	--	--	--	16,626
08/17/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
08/18/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
08/19/19	Technician		1132	949	55	1,558	--	1,753	20	17,603
08/20/19	*		1142	949	--	--	--	--	--	17,994
08/21/19	*		1152	949	--	--	--	--	--	18,385
08/22/19	*		1162	949	--	--	--	--	--	17,994
08/23/19	*		1172	949	--	--	--	--	--	18,385
08/24/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
08/25/19	offline	1	NA	NA	NA	NA	NA	NA	NA	NA
08/26/19	Technician	3	1202	1002	54	1453	--	2400	19	19,624
08/27/19	*		1226	1,002	--	--	--	--	--	20,633
08/28/19	*		1251	1,002	--	--	--	--	--	21,643
08/29/19	*		1275	1,002	--	--	--	--	--	22,652
08/30/19	*		1300	1,002	--	--	--	--	--	23,661
08/31/19	*		1324	1,002	--	--	--	--	--	24,671

Cumulative Mass TPHg Removed by the VES ^D (lb)			
Period	August	Quarter 3 to Date	January 2018 to Date
Mass	16,352.3	17,482.5	32,607.1

$$Vapor-Phase\ TPHg\ Mass\ [lb] = \left(Conc. \left[\frac{\mu g}{L} \right] \right) \left(\frac{28.32\ L}{ft^3} \right) \left(\frac{1\ g}{1,000,000\ \mu g} \right) \left(\frac{1\ lb}{453.59\ g} \right) \left(Flow\ [scfm] \right) \left(\frac{60\ min}{hr} \right) \left(OpTime\ [hrs] \right)$$

Legend / Notes:

- 1 = Thermal oxidizer manually shut down for weekend. System operational from 7am to 8pm.
- 2 = Collected monthly influent and effluent samples for laboratory analysis.
- 3 = Thermal oxidizer began continuous 24/7 operation due to the installation of sound blankets.

System operating under SCAQMD Permit #G52288

Vapor extraction wells on line this month (grouped by location):

Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15, TFR-16), (TRF-5, TFR-7, TFR-9, TFR-10, TFR-12); Eastern Area - (RW-1, RW-11, RW-18, RW-13, RW-4, RW-5, RW-9, RW-10, TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Southern Area - (RW-23, RW-30, RW-31, RW-32, VEW-40, RW-26, RW-28, RW-24, RW-27, RW-33, RW-43, RW-22, RW-29, RW-45, RW-35, RW-40, RW-44, RW-36, RW-37, RW-41, RW-42, RW-47, RW-48, RW-49, RW-50).

- VES = Soil vapor extraction system
- scfm = Standard cubic feet per minute
- ppmv = Parts per million by volume
- in. Hg = Inches of mercury
- °F = Degrees Fahrenheit
- lb = Pounds

- A = Reading measured using Dwyer DS-300 flow sensor.
- B = Concentrations obtained with a calibrated organic vapor analyzer.
- C = Concentrations correlated to laboratory data and expressed as hexane.
- D = Hydrocarbon removal is calculated using analytical laboratory result for GRO (if not detected, half the detection limit is used) from samples collected on: 8/05/19 (laboratory report attached). Does not include hydrocarbons removed by the temporary Thermal Oxidizer (see 'January 2018 to Date' entry for combined total).

- NA = Not available
- = Not applicable or not measured
- * = Operational values interpolated from chart recorder data or previous monitoring event.

TABLE 4C
Thermal Oxidizer Vapor Extraction System Operations Summary - September
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow ^A (scfm)	VES Manifold Vacuum (in. WC)	Oxidizer Inlet Temperature TE1 Excess Controller (°F)	Laboratory Process GRO Concentration (ppmv)	Field Inlet Process Oxidizer Concentration ^{B,C} (ppmv)	Field Effluent Concentration ^{B,C} (ppmv)	Cumulative Vapor-Phase GRO Removed ^D (lb)
09/01/19	*		1349	1002	--	--	--	--	--	29,956
09/02/19	*		1373	1002	--	--	--	--	--	30,836
09/03/19	*		1398	1002	--	--	--	--	--	31,717
09/04/19	Technician		1422	998	55	1,451	--	2,300	24	32,595
09/05/19	*		1445	998	--	--	--	--	--	33,420
09/06/19	*		1468	998	--	--	--	--	--	34,246
09/07/19	*		1491	998	--	--	--	--	--	35,071
09/08/19	*		1514	998	--	--	--	--	--	35,897
09/09/19	Technician	1	1537	957	60	1,447	2,300	2,180	27	36,688
09/10/19	*		1562	998	--	--	--	--	--	37,570
09/11/19	*		1586	998	--	--	--	--	--	38,452
09/12/19	*		1611	998	--	--	--	--	--	39,334
09/13/19	*		1635	998	--	--	--	--	--	40,216
09/14/19	*		1660	998	--	--	--	--	--	41,098
09/15/19	*		1684	998	--	--	--	--	--	41,979
09/16/19	Technician		1709	991	62	1,460	--	2,060	22	42,855
09/17/19	*		1733	991	--	--	--	--	--	43,710
09/18/19	*		1757	991	--	--	--	--	--	44,566
09/19/19	*		1781	991	--	--	--	--	--	45,421
09/20/19	*		1805	991	--	--	--	--	--	46,277
09/21/19	*		1829	991	--	--	--	--	--	47,132
09/22/19	*		1853	991	--	--	--	--	--	47,987
09/23/19	Technician		1877	994	66	1,463	--	1,708	22	48,845
09/24/19	*		1901	994	--	--	--	--	--	49,692
09/25/19	*		1924	994	--	--	--	--	--	50,540
09/26/19	*		1948	994	--	--	--	--	--	51,387
09/27/19	*		1972	994	--	--	--	--	--	52,234
09/28/19	*		1996	994	--	--	--	--	--	53,081
09/29/19	*		2019	994	--	--	--	--	--	53,928
09/30/19	*		2043	994	--	--	--	--	--	54,776

Cumulative Mass TPHg Removed by the VES ^D (lb)			
Period	September	Quarter 3 to Date	January 2018 to Date
Mass	30,105.0	47,587.5	62,712.1

$$Vapor-Phase\ TPHg\ Mass\ [lb] = \left(Conc. \left[\frac{\mu g}{L} \right] \right) \left(\frac{28.32\ L}{ft^3} \right) \left(\frac{1\ g}{1,000,000\ \mu g} \right) \left(\frac{1\ lb}{453.59\ g} \right) \left(Flow\ [scfm] \right) \left(\frac{60\ min}{hr} \right) \left(OpTime\ [hrs] \right)$$

Legend / Notes:

1 = Collected monthly influent and effluent samples for laboratory analysis.

System operating under SCAQMD Permit #G52288

Vapor extraction wells on line this month (grouped by location):

Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15, TFR-16), (TRF-5, TFR-7, TFR-9, TFR-10, TFR-12); Eastern Area - (RW-1, RW-11, RW-18, RW-13, RW-4, RW-5, RW-9, RW-10, TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Southern Area - (RW-23, RW-30, RW-31, RW-32, VEW-40, RW-26, RW-28, RW-24, RW-27, RW-33, RW-43, RW-22, RW-29, RW-45, RW-35, RW-40, RW-44, RW-36, RW-37, RW-41, RW-42, RW-47, RW-48, RW-49, RW-50).

VES = Soil vapor extraction system
 scfm = Standard cubic feet per minute
 ppmv = Parts per million by volume
 in. Hg = Inches of mercury
 °F = Degrees Fahrenheit
 lb = Pounds

A = Reading measured using Dwyer DS-300 flow sensor.
 B = Concentrations obtained with a calibrated organic vapor analyzer.
 C = Concentrations correlated to laboratory data and expressed as hexane.
 D = Hydrocarbon removal is calculated using analytical laboratory result for GRO (if not detected, half the detection limit is used) from samples collected on: 9/9/19 (laboratory report attached). Does not include hydrocarbons removed by the temporary Thermal Oxidizer (see 'January 2018 to Date' entry for combined total).

NA = Not available
 -- = Not applicable or not measured
 * = Operational values interpolated from chart recorder data or previous monitoring event.

TABLE 5A
Summary of LNAPL Removal in Well GMW-62 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
07/24/19	--	33.67	--	0	1.3	0.2	141.3	966.8
09/18/19	--	34.97	--	0	1.3	0.2	141.5	968.1
Cumulative for the Reporting Period:				0	2.5	0.4	0.4	2.5
Cumulative Beginning January 2014 ^A:				112	202	29	141	968

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since January 2014. LNAPL removed prior to January 2014 can be found in previously submitted Remediation Progress Reports.

TABLE 5B
Summary of LNAPL Removal in Well GMW-68 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
07/02/19	33.14	33.48	0.34	0	3.3	0.5	67	462
07/10/19	33.60	33.91	0.31	0	3.3	0.5	68	465
07/20/19	33.60	33.91	0.31	0	3.3	0.5	68	465
07/24/19	32.55	33.23	0.68	0	3.3	0.5	68	465
08/14/19	32.53	32.83	0.30	0	3.3	0.5	68	468
08/21/19	--	33.59	--	0	3.3	0.5	68	468
08/28/19	33.52	33.64	0.12	0	2.8	0.4	69	471
09/06/19	--	34.09	--	0	2.8	0.4	69	471
09/12/19	--	33.43	--	0	2.8	0.4	69	474
09/18/19	--	34.12	--	0	2.0	0.3	69	473
09/25/19	--	33.96	--	0	2.0	0.3	70	476
Cumulative for the Reporting Period:				0	22	4.6	4.5	17
Cumulative Beginning October 2016 ^A:				34	233	34	70	476

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since October 2016 following installation of well during July 2015 (no measureable product from July 2015 through February 2017).

TABLE 5C
Summary of LNAPL Removal in Well TF-19 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Pumping, Bailing and Socks ^A (pounds)
07/24/19	--	32.84	0.00	0	1.5	0.2	36	244
Cumulative for the Reporting Period:				0	1.5	0.2	0.2	1.5
Cumulative Beginning June 2015 ^A:				7	197	29	35	242

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since June 2015 (no measureable product from January 2014 to May 2015). LNAPL removed prior to January 2014 can be found in previously submitted Remediation Progress Reports.

TABLE 5D
Summary of LNAPL Removal in Well TFR-9 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2019							

Cumulative for the Reporting Period:	0	0	0	0	0	0	0
Cumulative Beginning October 2018 ^{A,B}:	150	0	0	0	150	1,026	

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TFR-9 initiated on October 8, 2018 but pump was manually shutdown on January 16, 2019 to allow for LNAPL recovery and resumed operating from February 7-27, 2019; Pump remained off-line through June 2019 based on regular gauging data showing little to no measureable product in the well).

TABLE 5E
Summary of LNAPL Removal in Well GMW-18 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2019							
Cumulative for the Reporting Period ^B:				0	0	0	0	0
Cumulative Beginning March 2017 ^A:				101	76	11	112	768

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since March 2017. LNAPL removed prior to March 2017 can be found in previously submitted Remediation Progress Reports.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well GMW-18 initiated on October 8, 2018; pump manually shutdown on January 16, 2019 due to insufficient yield and remained off-line through June 2019).

TABLE 5F
Summary of LNAPL Removal in Well TFR-12 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2019							

Cumulative for the Reporting Period:	0	0	0	0	0	0	0
Cumulative Beginning April 2018 ^{A,B}:	282	0	0	0	282	1,932	

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since April 2018 following installation of well during December 2017.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well TFR-12 initiated on April 23, 2018, and temporarily discontinued from September 5, 2018 to October 8, 2018 pending hookup to a new controller; Pump manually shutdown on March 11, 2019 due to insufficient yield and remained off-line through June 2019).

TABLE 5G
Summary of LNAPL Removal in Well TF-15 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2019							

Cumulative for the Reporting Period ^B:	0	0	0	0.0	0
Cumulative Beginning October 2016 ^A:	187	53	7.7	195	1,333

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since October 2016. No LNAPL removed previously during 2016 or throughout 2015 due to excavation project (January 2015 - March 2017) inadvertently resulting in burial of well head which was located during October 2016. LNAPL removed prior to well head being buried can be found in previously submitted Remediation Progress Reports.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TF-15 initiated on October 8, 2018 but pump was manually shutdown on November 15, 2018 to allow for LNAPL recovery, and also operated from November 28, 2018 to March 11, 2019 and April 17, 2019 to May 2, 2019; Pump has otherwise remained off-line due to insufficient yield).

TABLE 5H
Summary of LNAPL Removal in Well TFR-15 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2019							

Cumulative for the Reporting Period:	0	0	0	0	0	0
Cumulative Beginning October 2018 ^{A,B}:	23	0	0	0	23	157

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TFR-15 initiated on October 18, 2018 but pump was manually shutdown on November 15, 2018 to allow for LNAPL recovery with operations resuming from November 28, 2018 to December 7, 2018, and again from December 19, 2018 to February 27, 2019; Pump remained off-line through June 2019 due to insufficient yield).

TABLE 5I
Summary of LNAPL Removal in Well TF-16 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
08/14/19	35.52	35.92	0.40	3.0	No Sock in Well	0	335	2,296
08/21/19	34.57	34.97	0.40	2.0	No Sock in Well	0	337	2,309
Cumulative for the Reporting Period:				5.0	0	0	5.0	34.2
Cumulative Beginning March 2017 - June 2019 ^B:				323	0	0	328	2,245
Cumulative Beginning October 2016 ^A:				327	36	5.2	332	2,309

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since October 2016. No LNAPL removed previously during 2016 or throughout 2015 due to excavation project (January 2015 - March 2017) inadvertently resulting in burial of well head which was located during October 2016. LNAPL removed prior to well head being buried can be found in previously submitted Remediation Progress Reports.

B = Well hooked up to product recovery system on March 3, 2017 (i.e., all LNAPL removed subsequent to this date achieved via pumping) with skimmer manually shutdown on March 28, 2018 to allow for LNAPL recovery; Operations resumed on an intermittent basis starting on July 19, 2018, and regularly from September 19, 2018 to October 3, 2018, and again from December 14, 2018 to March 11, 2019 and May 2-6, 2019. Pump has otherwise remained off-line due to insufficient yield.

TABLE 5J
Summary of LNAPL Removal in Well GW-14R - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
08/14/19	33.94	35.01	1.07	4	No Sock in Well	NA	356	2,436
08/21/19	33.97	35.18	1.21	4	No Sock in Well	NA	360	2,464
Cumulative for the Reporting Period:				8.0	0	0	8.0	54.7
Cumulative Beginning October 2018 ^{A,B}:				352	0	0	360	2,464

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well GW-14R initiated on October 8, 2018 but pump was manually shutdown on April 17, 2019 to allow for LNAPL recovery, and only otherwise operated briefly during the reporting period from May 2-6, 2019 to evaluate the well yield).

TABLE 5K
Summary of LNAPL Removal in Well TFR-22 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
07/31/19	32.85	34.67	1.82	2.0	No Sock in Well	NA	123	842
08/07/19	33.21	33.67	0.46	3.0	No Sock in Well	NA	126	862
08/14/19	33.20	33.51	0.31	4.0	No Sock in Well	NA	130	890
08/21/19	33.28	33.58	0.30	3.0	No Sock in Well	NA	133	910
09/18/19	32.52	34.84	2.32	5.0	No Sock in Well	NA	138	944
09/25/19	33.05	34.44	1.39	7.0	No Sock in Well	NA	145	992
Cumulative for the Reporting Period:				24	0	0	24	164
Cumulative Beginning October 2018 ^{A,B}:				145	0	0	145	992

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TFR-22 initiated on October 8, 2018 but pump was manually shutdown on November 28, 2018 to allow for LNAPL recovery; Pumping resumed on from December 14, 2018 to April 17, 2019, and May 30, 2019 through June 30, 2019).

TABLE 5L
Summary of LNAPL Removal in Well TFR-24 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 2nd Quarter 2019							
Cumulative for the Reporting Period:				0	0	0	0	0
Cumulative Beginning October 2018 ^{A,B}:				102	0	0	102	698

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TFR-24 initiated on October 8, 2018 but pump was manually shutdown on November 28, 2018 to allow for LNAPL recovery, and also operated from December 7-27, 2018, January 4-7, 2019, January 11, 2019 to February 7, 2019, and February 19, 2019 to March 11, 2019; Pump remained off-line through June 2019 due to insufficient yield).

TABLE 5M
Summary of LNAPL Removal in Well TFR-29 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
07/24/19	32.30	35.03	2.73	5.0	No Sock in Well	NA	661	4,526
07/31/19	32.69	34.90	2.21	5.0	No Sock in Well	NA	666	4,560
08/07/19	32.78	33.99	1.21	6.0	No Sock in Well	NA	672	4,601
08/14/19	32.50	35.38	2.88	9.0	No Sock in Well	NA	681	4,663
08/21/19	32.75	35.24	2.49	8.0	No Sock in Well	NA	689	4,718
09/18/19	31.80	36.60	4.80	12.0	No Sock in Well	NA	701	4,800
09/25/19	32.10	37.67	5.57	14.0	No Sock in Well	NA	715	4,896
Cumulative for the Reporting Period:				59	0	0	59	404
Cumulative Beginning April 2018 ^{A,B}:				715	0	0	715	4,896

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since April 2018 following installation of well during November 2017.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016

(skimming from well TFR-29 initiated on April 23, 2018, and temporarily discontinued from September 5, 2018 to October 8, 2018 pending hookup to a new controller).

TABLE 5N
Summary of LNAPL Removal in Well TFR-33 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 2nd Quarter 2019							
Cumulative for the Reporting Period:				0	0	0	0	0
Cumulative Beginning October 2018 ^{A,B}:				124	0	0	124	849

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TFR-33 initiated on October 8, 2018 but pump was manually shutdown on December 7, 2018 to allow for LNAPL recovery, and also operated from December 19, 2018 through February 27, 2019; Pump remained off-line through June 2019 due to insufficient yield).

TABLE 50
Summary of LNAPL Removal in Well RTF-18-E - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
09/18/19	32.50	34.50	2.00	1.0	0.0	0.0	640.0	4,379.7
09/25/19	32.78	34.53	1.75	1.0	0.0	0.0	641.0	4,386.5

Cumulative for the Reporting Period:	2	0	0	2	14
Cumulative Beginning May 2016 - July 2016 ^A:	48	0	0	48	325
Cumulative Beginning August 2016 - September 2019 ^B:	593	0	0	592	4,055
Cumulative Beginning May 2016 ^A:	641	0	0	641	4,387

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since May 2016 following installation of well during December 2015.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well RTF-18-E initiated on August 11, 2016).

* = Well RTF-18-E was off-line from February 15, 2017 to October 4, 2017 to allow for LNAPL recovery which continued to be adequate for effective removal via skimming until March 15, 2018 when the pump was again shutdown and remained off-line until December 27, 2018 (pumping resumed until February 27, 2019 with no subsequent operations through June 2019 based on regular gauging data showing little to no measureable product in the well).

TABLE 5P
Summary of LNAPL Removal in Well RTF-18-NW - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 2nd Quarter 2019							

Cumulative for the Reporting Period:	0	0	0	0	0
Cumulative Beginning May 2016 - July 2016 ^A:	77	0	0	77	524
Cumulative Beginning August 2016 - June 2019 ^B:	2,961	0	0	2,961	20,263
Cumulative Beginning May 2016 ^A:	3,038	0	0	3,038	20,786

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since May 2016 following installation of well during December 2015.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well RTF-18-NW initiated on August 11, 2016).

* = Well RTF-18-NW was off-line from February 15, 2017 to August 10, 2017 to allow for LNAPL recovery which continued to be adequate for effective removal via skimming until March 11, 2019 with no subsequent operations through June 2019 based on regular gauging data showing little to no measureable product in the well.

TABLE 5Q
Summary of LNAPL Removal in Well RTF-18-N - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 2nd Quarter 2019							

Cumulative for the Reporting Period:	0	0	0	0	0
Cumulative Beginning April 2016 - July 2016 ^A:	48	0	0	48	325
Cumulative Beginning August 2016 - June 2019 ^B:	498	0	0	498	3,405
Cumulative Beginning April 2016 ^A:	545	0	0	545	3,730

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since April 2016 following installation of well during December 2015.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well RTF-18-N initiated on August 11, 2016).

* = Well RTF-18-N was off-line from September 14, 2016 to October 10, 2017, and November 7, 2017 to January 7, 2018, to allow for LNAPL recovery (pumping resumed until February 27, 2019 with no subsequent operations through June 2019 based on regular gauging data showing little to no measureable product in the well).

TABLE 5R
Summary of LNAPL Removal in Well TF-18 - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 2nd Quarter 2019							

Cumulative for the Reporting Period:	0	0	0	0	0
Cumulative Beginning January 2014 - July 2016 ^A:	266	307	45	311	2,128
Cumulative Beginning August 2016 - June 2019 ^B:	2,003	0	0	2,003	13,707
Cumulative Beginning January 2014 ^A:	2,269	307	45	2,314	15,835

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed prior to January 2014 can be found in previously submitted Remediation Progress Reports.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming initially isolated to well TF-18 for testing purposes with other wells coming online August 11, 2016).

* = Product recovery system off-line from January 9-27, 2017 due to full storage tank, and well TF-18 resumed operating after tank was emptied until February 8, 2017 when skimmer was manually shutdown to allow for LNAPL recovery (pumping resumed from August 10, 2017 to January 25, 2019 with no subsequent operations through June 2019 based on regular gauging data showing little to no measureable product in the well).

TABLE 5S
Summary of LNAPL Removal in Well RTF-18-NNW - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 2nd Quarter 2019							

Cumulative for the Reporting Period:	0	0	0	0	0
Cumulative Beginning April 2016 - July 2016 ^A:	55	0	0	55	373
Cumulative Beginning August 2016 - June 2019 ^B:	49	0	0	49	332
Cumulative Beginning April 2016 ^A:	103	0	0	103	705

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since April 2016 following installation of well during December 2015.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well RTF-18-NNW initiated on September 14, 2016 (off-line since January 9, 2017)).

* = Product recovery system off-line from January 9-27, 2017 due to full storage tank, and well RTF-18-NNW has since remained off-line to allow for LNAPL recovery which decreased from January 2017 to March 2017 with no measurable product from early March 2017 through mid-September 2017, and less than 0.3 foot at the end of 2017 (note that product thicknesses temporarily exhibited a further increasing overall trend during 2018 that has since reversed with little to no measurable product since late February 2019).

TABLE 5T
Summary of LNAPL Removal in Well RTF-18-W - 3rd Quarter 2019
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks ^A (pounds)
--	No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2019							

Cumulative for the Reporting Period:	0	0	0	0.0	0.0
Cumulative Beginning April 2016 - July 2016 ^A:	39	0	0	39	265
Cumulative Beginning August 2016 - June 2019 ^B:	371	0	0	371	2,539
Cumulative Beginning April 2016 ^A:	410	0	0	410	2,804

Legend / Notes:

LNAPL = Light non-aqueous phase liquids feet btc = Feet below top of casing Sock = LNAPL absorbent sock -- = Not applicable

A = Cumulative LNAPL removed since April 2016 following installation of well during December 2015.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well RTF-18-W initiated on September 14, 2016).

* = Well RTF-18-W was off-line from December 9, 2016 to October 10, 2017 to allow for LNAPL recovery which continued to be adequate for effective removal via skimming until April 4, 2019 when the pump was again shutdown and remained off-line through June 2019 based on regular gauging data showing little to no measureable product in the well.

TABLE 6
Historical Summary of Analytical Groundwater Sampling Results - Influent GWETS
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	GWETS Wells On Line	Laboratory Analysis Methods	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
4/22/08		--	--	--	--	71	25	17	42	30	14	4.6	<2.0	<2.0	<2.0
5/1/08		--	--	810	--	--	--	--	--	--	--	--	--	--	--
5/16/08		--	--	760	--	--	--	--	--	--	--	--	--	--	--
6/12/08		--	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	25	7.7	<2.0	<2.0	<2.0
7/19/08		--	--	170	<100	27	0.77	7.0	13	7.9	<10	3.9	<2.0	<2.0	<2.0
9/3/08		--	--	--	--	--	--	--	--	--	<10	--	--	--	--
9/8/08		--	--	--	--	27	0.99	8.3	13	8.2	<10	3.1	<2.0	<2.0	<2.0
9/15/08		--	--	--	--	36	0.81	8.5	12	6.8	<10	3.8	<2.0	<2.0	<2.0
11/13/08		--	--	--	--	27	<0.50	2.0	12	5.6	<10	<0.50	<2.0	<2.0	<2.0
11/26/08		--	--	--	--	<0.50	<0.50	<0.50	1.3	0.61	16	5.6	<2.0	<2.0	<2.0
12/13/08		--	--	--	--	<0.50	<0.50	0.56	1.1	0.54	19	7.0	<2.0	<2.0	<2.0
1/9/09		--	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<2.0	<2.0	<2.0
3/5/09		--	--	<100	--	21	<0.50	2.5	7.2	3.1	12	3.1	<2.0	<2.0	<2.0
3/18/09		--	--	200	170	21	<0.50	2.9	7.0	4.5	13	3.3	<2.0	<2.0	<2.0
5/15/09		--	--	<100	--	--	--	--	--	--	--	--	--	--	--
6/4/09		--	--	190	--	26	<0.50	3.3	10	6.6	<10	4.8	<2.0	<2.0	<2.0
6/24/09		--	--	--	--	28	<0.50	2.5	7.6	4.2	12	4.4	<2.0	<2.0	<2.0
5/28/09		--	--	170	--	27	<0.50	2.6	7.9	4.5	<10	3.6	<2.0	<2.0	<2.0
11/19/09		--	--	<100	--	15	<0.50	1.3	5.8	2.9	5.6	2.3	1.2	<2.0	<2.0
10/26/10		--	--	--	--	20	<0.50	1.6	7.4	2.1	8.0	2.9	1.1	<2.0	<2.0
6/1/11		--	--	90	--	--	--	--	--	--	--	--	--	--	--
7/14/11		--	--	--	--	13	<0.50	2.3	6.2	3.0	6.7	1.6	<2.0	<2.0	<2.0
9/13/11		--	--	--	--	5.0	<0.50	0.37	3.4	0.99	<10	1.3	<2.0	<2.0	<2.0
9/22/11		--	--	--	--	5.5	<0.50	0.92	7.2	1.6	5.6	1.1	<2.0	<2.0	<2.0
10/19/11		--	--	--	--	8.2	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<2.0	<2.0	<2.0
1/20/12		--	--	--	--	14	<0.50	2.8	7.8	1.2	16	1.3	0.42	<2.0	<2.0
2/3/12		--	--	120	340	--	--	--	--	--	--	--	--	--	--
2/17/12		--	--	--	--	10	<0.50	1.5	7.4	1.2	15	1.2	0.39	<2.0	<2.0
2/24/12		--	--	180	--	26	<0.50	1.0	7.0	1.2	<10	1.2	0.41	<2.0	<2.0
3/2/12		--	--	--	--	23	<0.50	1.4	11	2.4	8.7	1.4	0.47	<2.0	<2.0
3/6/12		--	--	--	--	28	<0.50	1.0	9.0	1.7	13	1.1	0.37	<2.0	<2.0

TABLE 6
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 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	GWETS Wells On Line	Laboratory Analysis Methods	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
6/15/12		--	--	--	--	39	13	17	88	26	<10	1.3	0.52	<2.0	<2.0
8/31/12		--	--	820	940	--	--	--	--	--	--	--	--	--	--
9/27/12		--	--	5,300	3,800	--	--	--	--	--	--	--	--	--	--
10/23/12		--	--	--	--	67	60	110	460	140	<10	<0.50	<2.0	<2.0	<2.0
1/31/13		--	--	3,600	--	--	--	--	--	--	--	--	--	--	--
5/1/13		--	--	6,300	5,500	20	4.7	8.0	41	14	4.8	0.56	<2.0	<2.0	<2.0
7/12/13		--	--	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<2.0	<2.0	<2.0
8/20/13		--	--	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<2.0	<2.0	<2.0
12/19/13		--	--	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<2.0	<2.0	<2.0
2/7/14		--	--	1,500	2,300	--	--	--	--	--	--	--	--	--	--
3/21/14		--	--	--	--	61	5.1	23	150	45	<10	0.87	<2.0	<2.0	<2.0
5/29/14	1	--	8015M & 8260B	--	--	29	1.0	30	180	45	<10	1.0	<2.0	<2.0	<2.0
7/9/14	2	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	720	1,800	82	3.8	27	110	31	<7.0	<0.40	<0.50	<0.40	<0.30
8/13/14		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	150	1,500	57	3.7	30	130	36	<7.0	0.77	<0.50	<0.40	<0.30
9/17/14		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	800	3,500	23	0.73	20	170	40	<7.0	0.83	<0.50	<0.40	<0.30
10/20/14		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	560	3,600	31	2.2	40	240	54	<7.0	0.6	<0.50	<0.40	<0.30
11/17/14	3,4	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	260	1,400	21	0.71	10	62	18	<7.0	<0.40	<0.50	<0.40	<0.30
12/17/14	4	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	190	880	23	0.66	8.8	48	14	<7.0	<0.40	<0.50	<0.40	<0.30
1/14/15	1,2	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	4,600	3,800	150	2.8	29	130	37	<7.0	<0.40	<0.50	<0.40	<0.30
2/20/15	2,4	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	2,500	8,100	230	9.8	220	880	220	<7.0	0.45	<0.50	<0.40	<0.30
3/27/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	620	980	9.9	<0.30	2.7	18	5.9	<7.0	1.0	<0.50	<0.40	<0.30
5/11/15	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	330	16	5.2	5.9	37	14	<7.0	0.58 J	<0.50	<0.40	<0.30
6/3/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	150	340	20	6.6	12	22	25	<7.0	0.52 J	<0.50	<0.40	<0.30
7/9/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	180	610	<0.20	<0.30	<0.20	<0.40	<0.30	<7.0	0.62 J	<0.50	<0.40	<0.30
8/17/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	430	<40	<0.20	<0.30	<0.20	0.95 J	<0.30	<7.0	0.71 J	<0.50	<0.40	<0.30
9/3/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	86 J	570	5.9	0.37 J	3.7	10	14	<7.0	0.45 J	<0.50	<0.40	<0.30
10/5/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	500	7.3	<0.30	8.7	35	15	<7.0	0.73 J	<0.50	<0.40	<0.30
11/2/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	420	3,400	5.1	<0.30	17	130	22	<7.0	0.85 J	<0.50	<0.40	<0.30
12/7/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	710	3,800	0.70	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
1/12/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	2,000	510	14	<0.30	3.6	25	7.0	<7.0	<0.40	<0.50	<0.40	<0.30
2/1/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	72 J	180	13	<0.30	0.53	2.7	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30

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Sample Date	Notes	GWETS Wells On Line	Laboratory Analysis Methods	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
3/14/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	270	1,100	0.91	<0.30	<0.20	1.6	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
4/4/16	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	76 J	100	0.99	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
5/4/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	170	470	<0.20	<0.30	<0.20	1.3	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
6/1/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	280	75 J	4.9	<0.30	<0.20	<0.40	<0.30	<7.0	0.43 J	<0.50	<0.40	<0.30
7/11/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	330	<40	4.7	<0.30	<0.20	<0.40	<0.30	<7.0	0.79 J	<0.50	<0.40	<0.30
8/1/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	3.7	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
9/1/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	2.7	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
10/12/16	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	230	<40	4.5	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
11/1/16	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	120	52 J	3.1	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
12/5/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	450	51 J	<0.20	<0.30	<0.20	<0.40	<0.30	<7.0	0.60 J	<0.50	<0.40	<0.30
1/9/17		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	150	<40	4.4	<0.30	<0.20	<0.40	<0.30	<7.0	0.58 J	<0.50	<0.40	<0.30
2/6/17	6	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	110	<40	3.5	<0.30	0.41 J	0.60 J	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
3/15/17	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	68 J	<40	4.3	<0.30	<0.20	<0.40	<0.30	<7.0	0.60 J	<0.50	<0.40	<0.30
4/5/17	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	74 J	<40	8.4	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
5/3/17		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	72 J	<40	4.3	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
6/5/17		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	62 J	<40	5.0	<0.30	<0.20	0.50 J	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
7/19/17	5	GW-2, GW-15, GW-16	8015M & 8260B	75 J	<40	3.4	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
8/2/17		GW-2, GW-15, GW-16	8015M & 8260B	80 J	<40	4.0	<0.30	<0.20	<0.40	<0.30	<7.0	0.88 J	<0.50	<0.40	<0.30
9/13/17		GW-2, GW-15, GW-16	8015M & 8260B	84 J	<40	<0.20	<0.30	<0.20	<0.40	<0.30	<7.0	0.69 J	<0.50	<0.40	<0.30
10/16/17		GW-2, GW-15, GW-16	8015M & 8260B	64 J	<40	3.7	<0.30	<0.20	<0.40	<0.30	<7.0	0.54 J	<0.50	<0.40	<0.30
11/13/17		GW-2, GW-15, GW-16	8015M & 8260B	78 J	<40	4.5	<0.30	<0.20	<0.40	<0.30	<7.0	0.54 J	<0.50	<0.40	<0.30
12/11/17	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	2.8	<0.30	<0.20	<0.40	<0.30	8.8 J	<0.40	<0.50	<0.40	<0.30
1/11/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	73 J	<40	2.0	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
2/26/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	130	<40	5.3	<0.30	<0.20	<0.40	<0.30	<7.0	0.49 J	<0.50	<0.40	<0.30
3/20/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	4.4	<0.30	<0.20	<0.40	<0.30	<7.0	0.47 J	<0.50	<0.40	<0.30
4/2/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	65 J	<40	2.9	<0.30	<0.20	<0.40	<0.30	<7.0	0.50 J	<0.50	<0.40	<0.30
5/2/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	130	<40	2.5	<0.30	<0.20	<0.40	<0.30	<7.0	0.74 J	<0.50	<0.40	<0.30
6/4/18		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	0.74	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
7/2/18	7,8	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	1.1	<0.30	<0.20	<0.40	<0.30	<7.0	0.41 J	<0.50	<0.40	<0.30
8/6/18		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	3.1	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
9/13/18		GW-2, GW-15, GW-16	8015M & 8260B	<60	<40	0.38 J	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30

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Sample Date	Notes	GWETS Wells On Line	Laboratory Analysis Methods	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
10/29/18		GW-15, GW-16	8015M & 8260B	<60	<40	2.4	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
11/14/18		GW-15, GW-16	8015M & 8260B	<60	<40	2.0	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
12/17/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 624	170	<100	<0.5	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0
1/8/19		GW-2, GW-13, GW-15, GW-16	8015M & 8260B												
2/6/19	9	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	170	<100	<0.5	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0

Legend / Notes:

Data collected prior to July 2014 not verified for completeness nor accuracy.

GWETS = Groundwater extraction and treatment system
 ETBE = Ethyl tertiary-butyl ether

TPHd = Total petroleum hydrocarbons as diesel
 TPHg = Total petroleum hydrocarbons as gasoline

MTBE = Methyl tertiary-butyl ether
 TAME = tertiary-Amyl-methyl ether

TBA = tertiary-Butyl alcohol
 µg/L = Micrograms per liter

DIPE = Diisopropyl ether
 -- = Not available or not analyzed

<1 = Not detected at or above the Method Reporting Limit (MRL) shown. Beginning 7/9/14, not detected at or above the Method Detection Limit (MDL) shown.

J = Estimated value. Analyte detected at a level less than the MRL and greater than or equal to the MDL.

1 = GWETS manually shut down.

2 = GWETS restarted on 7/2/14, 1/13/15 and 2/25/15.

3 = GWETS manually shut down on 11/11/14.

4 = GWETS temporarily restarted but left off-line upon departure.

5 = GWETS manually shut down on 4/13/15, 5/6/15, 4/4/16, 9/26/16, 11/7/16, 3/8/17, 4/17/17 and 7/3/17, and restarted on 4/27/15, 5/8/15, 4/28/16, 10/12/16, 11/23/16, 3/15/17, 4/25/17 and 7/17/17, respectively.

6 = GWETS restarted following an automatic shut down on 2/4/17.

7 = GWETS manually shut down on 11/20/17 and largely remained off-line through late May 2018, as well as during July and December 2018, with the exception of a few operational days and/or weeks to collect system removal performance samples following the completion of media change out work, and/or to complete routine groundwater monitoring and sampling work along with system maintenance activities.

8 = GWETS manually shut down from 7/9/18 to 7/12/18 for installation of replacement discharge totalizer, 7/13/18 to 7/16/18 for repairs, and 7/18/18 to 7/20/18 for carbon changeout fieldwork.

9 = GWETS off-line since 2/27/19 pending the completion of an alternative waste discharge evaluation study.

-Reported concentrations are shown in bold.

TABLE 7
Historical Summary of Analytical Vapor Sampling Results - Influent Carbon VES
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	Vapor Extraction System Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		GRO as Hexane		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		Total Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
04/29/11		--	TO-3 & 8260B	--	--	--	17	60	0.021	0.067	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
05/27/11		--	TO-3 & 8260B	--	--	--	13	46	0.021	0.067	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
06/30/11		--	TO-3 & 8260B	--	--	--	11	39	0.018	0.057	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
07/27/11		--	TO-3 & 8260B	--	--	--	8.6	31	0.013	0.042	<0.0050	<0.019	0.012	0.052	--	--	--	--	0.013	0.056	<0.010	<0.036
08/26/11		--	TO-3 & 8260B	--	--	--	7.8	28	0.012	0.038	<0.0050	<0.019	0.020	0.087	--	--	--	--	0.0264	0.115	<0.010	<0.036
09/30/11		--	TO-3 & 8260B	--	--	--	6.9	25	0.012	0.038	<0.0050	<0.019	0.011	0.048	--	--	--	--	0.011	0.048	<0.010	<0.036
10/28/11		--	TO-3 & 8260B	--	--	--	5.4	19	0.011	0.035	<0.0050	<0.019	0.015	0.065	--	--	--	--	0.028	0.12	<0.010	<0.036
11/30/11		--	TO-3 & 8260B	--	--	--	8.5	30	0.012	0.038	<0.0050	<0.019	0.0067	0.029	--	--	--	--	0.010	0.043	<0.010	<0.036
12/28/11		--	TO-3 & 8260B	--	--	--	8.6	31	0.024	0.077	0.0075	0.028	0.0096	0.042	--	--	--	--	0.022	0.095	<0.010	<0.036
01/26/12		--	TO-3 & 8260B	--	--	--	3.7	13	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
02/24/12		--	TO-3 & 8260B	--	--	--	4.6	16	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
03/28/12		--	TO-3 & 8260B	--	--	--	4.1	15	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
04/27/12		--	TO-3 & 8260B	--	--	--	3.6	13	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
05/31/12		--	TO-3 & 8260B	--	--	--	6.5	23	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
06/28/12		--	TO-3 & 8260B	--	--	--	5.3	19	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
07/26/12		--	TO-3 & 8260B	4.1	--	--	4.1	15	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
08/31/12		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
09/27/12		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
10/30/12		--	TO-3 & 8260B	1.5	--	--	6.1	22	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
11/26/12		--	TO-3 & 8260B	4.2	--	--	4.2	15	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
12/19/12		--	TO-3 & 8260B	3.2	--	--	3.2	11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
01/31/13		--	TO-3 & 8260B	4.6	--	--	4.6	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--
02/27/13		--	TO-3 & 8260B	4.5	--	--	4.5	16	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
03/28/13		--	TO-3 & 8260B	6.7	--	--	6.7	24	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
04/22/13		--	TO-3 & 8260B	5.4	--	--	5.4	19	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
07/29/13		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
08/12/13		--	TO-3 & 8260B	--	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
10/30/13		--	TO-3 & 8260B	3.0	--	--	3.0	11	0.014	0.045	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
11/27/13		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	0.015	0.065	<0.010	<0.036
12/19/13		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
03/21/14		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	<0.0050	<0.022	<0.010	<0.043	<0.015	<0.065	<0.010	<0.036
04/23/14		VEW-32, VEW-33, VEW-34, VEW-35, VEW-36 VEW-37, HW-1, HW-3, HW-5, HW-7	TO-3 & 8260B	1.9	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	<0.0050	<0.022	<0.010	<0.043	<0.015	<0.065	<0.010	<0.036
05/16/14	1	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36 VEW-37, HW-1, HW-3, HW-5, HW-7	TO-3 & 8260B	1.1	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	<0.0050	<0.022	<0.010	<0.043	<0.015	<0.065	<0.010	<0.036
07/09/14	2	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36 VEW-37, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	24	6.1	25	7.0	25	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
08/13/14		VEW-32, VEW-33, VEW-34, VEW-35, VEW-36 VEW-37, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	27	7.3	30	8.4	30	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0

TABLE 7
Historical Summary of Analytical Vapor Sampling Results - Influent Carbon VES
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	Vapor Extraction System Wells On Line	Laboratory Analysis Methods	GRO	GRO		GRO as Hexane		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		Total Xylenes		MTBE	
				Field OVA Reading	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
09/17/14	3	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	5.6	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
10/23/14	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	1.2	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
11/17/14	5	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	1.3	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
12/17/14		VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	0.5	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
01/14/15		VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	1.5	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
02/20/15		VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	1.5	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
03/27/15		VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	3.4	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
04/27/15	6	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	132	140	580	160	580	0.63	2.0	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	0.23	1.0	0.23	1.0	<0.6	<2.0
05/29/15	6,7	--	8015M & 8260M	103	83	340	97	340	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
06/03/15	6,8	VEW-32, VEW-33, VEW-34	8015M & 8260M	47	32	130	37	130	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
07/09/15	6	VEW-32, VEW-33, VEW-34	8015M & 8260M	162	150	600	170	600	<0.16	<0.50	0.15	0.58	<0.12	<0.50	0.67	2.9	0.71	3.1	1.38	6.0	<0.55	<2.0
07/15/15	6,9	VEW-32, VEW-33, VEW-34	8015M & 8260M	147	170	700	200	700	<0.16	<0.50	0.53	2.0	0.18	0.78	0.99	4.3	1.5	6.3	2.49	10.6	<0.55	<2.0
07/21/15	6,9	VEW-32, VEW-33, VEW-34	8015M & 8260M	259	160	640	180	640	<0.16	<0.50	0.25	0.94	<0.12	<0.50	0.71	3.1	0.62	2.7	1.33	5.8	<0.55	<2.0
07/29/15	6,9	VEW-32, VEW-33, VEW-34	8015M & 8260M	129	170	710	200	710	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	0.32	1.4	0.25	1.1	0.57	2.5	<0.55	<2.0
08/17/15	6,10	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5	8015M & 8260M	135	130	550	160	550	0.75	2.4	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	0.28	1.2	0.28	1.2	<0.55	<2.0
09/09/15	6,11	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	202	190	760	220	760	0.30	0.95	0.74	2.8	0.76	3.3	0.69	3.0	2.5	11	3.19	14	<0.55	<2.0
09/22/15	6,9	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	225	150	600	170	600	0.27	0.85	0.37	1.4	<0.12	<0.50	0.71	3.1	0.58	2.5	1.29	5.6	<0.55	<2.0
09/25/15	6,9	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	258	220	890	250	890	0.41	1.3	0.64	2.4	0.17	0.75	0.74	3.2	0.85	3.7	1.59	6.9	<0.55	<2.0
10/07/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	256	230	940	270	940	0.69	2.2	0.82	3.1	0.22	0.97	0.41	1.8	1.1	4.6	1.51	6.4	<0.55	<2.0
11/04/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	380	290	1,200	340	1,200	0.88	2.8	1.6	5.9	0.25	1.1	1.4	6.2	2.1	9.0	3.5	15	<0.55	<2.0
12/07/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	346	320	1,300	370	1,300	0.69	2.2	1.9	7.0	0.15	0.64	0.76	3.3	0.94	4.1	1.7	7.4	<0.55	<2.0
01/13/16	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	141	110	470	130	470	0.16	0.52	0.29	1.1	<0.12	<0.50	0.22	0.95	0.30	1.3	0.52	2.3	<0.55	<2.0
02/10/16	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	124	98	400	110	400	0.59	1.9	0.66	2.5	0.23	1.0	0.39	1.7	0.6	2.6	0.99	4.3	<0.55	<2.0
03/02/16	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	92	54	220	63	220	<0.16	<0.50	0.25	0.93	<0.12	<0.50	0.14	0.62	<0.23	<1.0	0.14	0.62	<0.55	<2.0
04/06/16	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	124	120	490	140	490	0.38	1.2	0.29	1.1	<0.12	<0.50	0.17	0.72	<0.23	<1.0	0.17	0.72	<0.55	<2.0
05/04/16	6,7	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	107	100	410	120	410	0.31	1.0	0.20	0.77	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
06/06/16	6,12	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	73	59	240	68	240	0.59	1.9	0.50	1.9	<0.12	<0.50	0.41	1.8	0.51	2.2	0.92	4.0	<0.55	<2.0
07/06/16	6,13	HW-1, HW-3, HW-5	8015M & 8260M	49	37	150	43	150	0.41	1.3	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
09/01/16	6,13	HW-1, HW-3, HW-5	8015M & 8260M	46	18	75	21	75	0.41	1.3	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
10/12/16	6,13,14	HW-1, HW-3, HW-5	8015M & 8260M	43	19	79	22	79	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
11/01/16	6,13	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	114	81	330	94	330	0.53	1.7	0.23	0.86	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
12/05/16	6,13	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	96	86	350	100	350	0.31	1.0	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
01/09/17	6,13	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	86	68	280	80	280	0.63	2.0	0.24	0.89	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
02/06/17	6,13	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	93	66	270	77	270	0.44	1.4	0.19	0.72	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
03/15/17	6,13	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	96	76	310	88	310	0.53	1.7	0.24	0.9	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0

TABLE 7
Historical Summary of Analytical Vapor Sampling Results - Influent Carbon VES
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	Vapor Extraction System Wells On Line	Laboratory Analysis Methods	GRO	GRO		GRO as Hexane		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		Total Xylenes		MTBE	
				Field OVA Reading	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
03/27/17	15,16	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	193	150	600	170	600	0.91	2.9	0.42	1.6	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
04/17/17	15	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	138	150	610	170	610	1.1	3.5	0.53	2.0	<0.12	<0.50	<0.12	<0.50	0.23	1.0	0.23	1.0	<0.55	<2.0
05/03/17	15	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	141	120	510	140	510	0.69	2.2	0.58	2.2	0.12	0.51	<0.12	<0.50	0.35	1.5	0.35	1.5	<0.55	<2.0
06/05/17	15	HW-1, HW-3, HW-5	8015M & 8260M	136	110	430	120	430	0.81	2.6	0.40	1.5	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
06/27/17	15,17	HW-1, HW-3, HW-5, VEW-38, VEW-39, VEW-40	8015M & 8260M	--	140	560	160	560	0.38	1.2	0.20	0.75	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
07/19/17		HW-5, HW-7 and VEW-39	8015M & 8260M	199	120	500	140	500	0.75	2.4	0.45	1.7	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
08/09/17	18,19	HW-1, HW-5, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	8015M & 8260M	695	560	2,300	650	2,300	0.69	2.2	0.29	1.1	0.53	2.3	<0.12	<0.50	0.44	1.9	0.44	1.9	<0.55	<2.0
09/07/17	19	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	8015M & 8260M	767	610	2,500	710	2,500	1.2	3.9	0.48	1.8	0.46	2.0	<0.12	<0.50	0.51	2.2	0.51	2.2	<0.55	<2.0
10/12/17	19,20	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	8015M & 8260M	536	370	1,500	430	1,500	1.0	3.2	0.32	1.2	0.41	1.8	0.20	0.88	0.83	3.6	1.0	4.5	<0.55	<2.0
11/02/17	19	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	8015M & 8260M	300	240	970	270	970	0.78	2.5	0.24	0.89	0.28	1.2	<0.12	<0.50	0.51	2.2	0.51	2.2	<0.55	<2.0
12/11/17	19	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	8015M & 8260M	335	270	1,100	300	1,100	0.85	2.7	0.27	1.0	0.21	0.9	<0.12	<0.50	0.37	1.6	0.37	1.6	<0.55	<2.0
01/11/18	21	HW-1, HW-5, HW-7	8015M & 8260M	269	240	970	270	970	1.1	3.4	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
02/12/18	21	HW-1, HW-5, HW-7	8015M & 8260M	148	86	350	88	350	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
03/28/18	21	HW-1, HW-5, HW-7	8015M & 8260M	201	160	670	170	670	0.59	1.9	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
04/02/18	21	HW-1, HW-5, HW-7	8015M & 8260M	191	150	620	160	620	0.25	0.79	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
05/02/18	21	HW-1, HW-5, HW-7	8015M & 8260M	149	110	470	150	470	0.16	0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
06/06/18	21	HW-1, HW-5, HW-7	8015M & 8260M	95	49	200	50	200	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
07/02/18	21	HW-1, HW-5, HW-7	8015M & 8260M	135	120	490	120	490	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
08/06/18	21	HW-1, HW-5, HW-7	8015M & 8260M	134	49	200	48	200	0.3	0.95	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
09/13/18	21	HW-1, HW-5, HW-7	8015M & 8260M	109	49	200	50	200	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
10/29/18	21	HW-1, HW-5, HW-7	8015M & 8260M	118	66	270	59	270	0.44	1.4	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
11/14/18	21	HW-1, HW-5, HW-7	8015M & 8260M	202	200	800	170	800	1.3	4.2	0.69	2.6	<0.12	<0.5	<0.12	<0.5	0.35	1.5	<0.35	<1.5	<0.55	<2.0
12/12/18	21	HW-1, HW-5, HW-7	8015M & 8260M	130	98	400	87	400	0.59	1.9	0.21	0.79	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
01/28/19	21	HW-1, HW-5, HW-7	8015M & 8260M	228	220	880	190	880	1.3	4.0	0.27	1.0	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0

TABLE 7
Historical Summary of Analytical Vapor Sampling Results - Influent Carbon VES
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	Vapor Extraction System Wells On Line	Laboratory Analysis Methods	GRO	GRO		GRO as Hexane		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		Total Xylenes		MTBE	
				Field OVA Reading	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
02/12/19	21, 22	HW-1, HW-5, HW-7	8015M & 8260M	258	240	1,000	220	1,000	1.0	3.3	0.23	0.88	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
04/03/19	21, 22	HW-1, HW-5, HW-7	8015M & 8260M	109	73	300	65	300	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0

Legend / Notes:

Data collected prior to April 2014 not verified for completeness nor accuracy.
 Influent vapor sample inadvertently not collected during August 2016.

- Reported concentrations are shown in bold.

VES = Vapor extraction system
 ppmv = Parts per million by volume

GRO = Gasoline range organics
 µg/L = Micrograms per liter

MTBE = Methyl tertiary-butyl ether
 -- = Not available or not analyzed

OVA = Organic Vapor Analyzer (calibrated or correlated to Hexane)
 <0.1 = Not detected at or above the Method Reporting Limit (MRL) shown

- 1 = VES manually shut down on 05/29/14.
- 2 = VES restarted.
- 3 = Closed vapor extraction wells VEW-35, VEW-36, and VEW-37 on 08/27/14 based on field readings (see Table 9A for details).
- 4 = VES manually shut down.
- 5 = VES restarted on 11/03/14.
- 6 = Select soil biopiles also on line.
- 7 = Closed all vapor extraction wells from 05/07/15 to 06/03/15, and 05/25/16 to 06/17/16, respectively, to focus extraction efforts on soil biopiles.
- 8 = Opened vapor extraction wells VEW-32, VEW-33 and VEW-34.
- 9 = Additional sample collected for laboratory analysis as part of field instrument correlation study.
- 10 = Opened vapor extraction wells HW-1, HW-3 and HW-5 on 08/10/15 based on field PID readings (see Table 9A for details).
- 11 = Closed vapor extraction well VEW-34 on 08/19/15 based on low to non-detectable lab results (see Table 10 for details).
- 12 = Opened vapor extraction wells HW-1, HW-3 and HW-5 on 06/17/16.
- 13 = Valves associated with vapor extraction wells HW-1, HW-3, HW-5 and/or HW-7 each set to a partially open position while leaving all other wells closed to focus extraction efforts on soil biopiles.
- 14 = Resumed vapor extraction from well HW-7 based on field PID readings (see Table 9A for details).
- 15 = Valves associated with vapor extraction wells HW-1, HW-3, HW-5 and/or HW-7 each set to optimize system in accordance with recent field readings and/or lab data since completion of ex-situ remediation project on 03/20/17.
- 16 = Additional sample collected for laboratory analysis after disconnecting all soil biopiles and optimizing system on 03/20/17 (i.e., with extraction efforts again focused on in-situ remediation following completion of ex-situ remediation project).
- 17 = Wells VEW-38, VEW-39 and VEW-40 tied into system during late June 2017 following installation per SGI's March 14, 2017 *Well Replacement Report and Work Plan*.
- 18 = Wells RW-1, RW-2, RW-7, RW-9, RW-12, RW-13, RW-18, RW-20 through RW-24, RW-26, and RW-28 through RW-33 tied into system during early August 2017 following installation per SGI's June 30, 2017 *Remediation Well Installation Update Report*.
- 19 = For full list of wells online, see SGI's November 15, 2017 *Remediation Status Report - Third Quarter 2017* and February 15, 2018 *Remediation Status Report - Fourth Quarter 2017*, respectively.
- 20 = Opened dilution valve approximately 10% to reduce carbon usage rate.
- 21 = Closed dilution valve and focused extraction efforts on relatively low concentration horizontal wells to reduce carbon usage with all other higher concentration vertical wells being connected to the thermal oxidizer (see Table 8 for details).
- 22 = No sample collected for analysis during March 2019 due to site condition and system operation status.

TABLE 8
Historical Summary of Analytical Vapor Sampling Results - Influent Thermal Oxidizer VES
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	VES Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		GRO as Hexane		Benzene		Ethylbenzene		MTBE		Toluene		o-Xylene		m,p-Xylenes		Total Xylenes	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
01/11/18	1,2,3	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, RW-9, RW-13, RW-18 and RW-26	8015M & 8260M	1,942	370	1500	380	1,500	<0.16	<0.50	<0.12	<0.50	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5
03/14/18	2,4,5,6	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	8015M & 8260M	2,193	370	1500	380	1,500	0.41	1.3	<0.12	<0.50	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5
04/02/18	2	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	8015M & 8260M	1,370	1,700	7,100	1,800	7,100	4.1	13	0.28	1.2	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	0.76	3.3	<0.35	<1.5
05/02/18	2	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	8015M & 8260M	1,380	780	3,200	820	3,200	3.0	9.6	<0.12	<0.50	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	0.28	1.2	<0.35	<1.5
06/06/18	2,6,7	HW-1, HW-5, HW-7, VEW-39, RW-1, -4, -9, -10, -11, -13, -14 and -18	8015M & 8260M	1,531	1,000	4,100	990	4,100	4.1	13	0.17	0.72	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	0.53	2.3	<0.35	<1.5
07/02/18	2,6	RW-1, -4, -5, -9, -10, -11, -13, -18, -22, -29, -23, -24, -26, -27, -28, -30, -31, -32, -33, -36, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	890	560	2,300	560	2,300	2.2	7.1	<0.23	<1.0	<1.1	<4.0	<0.27	<1.0	<0.23	<1.0	0.55	2.4	<0.35	<1.5
08/06/18	2,6	RW-1, -4, -5, -9, -10, -11, -13, -18, -22, -29, -23, -24, -26, -27, -28, -30, -31, -32, -33, -36, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	876	710	2,900	710	2,900	0.88	2.8	0.23	1.0	<0.55	<2.0	0.58	2.2	0.25	1.1	0.92	4.0	<0.35	<1.5
09/13/18	2,6	RW-1, -4, -5, -9, -10, -11, -13, -18, -22, -29, -23, -24, -26, -27, -28, -30, -31, -32, -33, -36, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	935	930	3,800	930	3,800	1.9	6.0	0.41	1.8	<0.28	<1.0	0.34	1.3	0.18	0.77	0.94	4.1	<0.35	<1.5
10/29/18	2,6	RW-1, -4, -5, -9, -10, -11, -14, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -36, -37, -38, -40, -41, -42, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	791	440	1,800	390	1,800	0.97	3.1	<0.12	<0.5	<0.55	<2.0	<0.13	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5
11/14/18	2,6	RW-1, -4, -5, -9, -10, -11, -14, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -36, -37, -38, -40, -41, -42, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	794	640	2,600	560	2,600	1.6	5.1	0.18	0.77	<0.55	<2.0	<0.13	<0.5	<0.12	<0.5	0.41	1.8	<0.35	<1.5
12/17/18	2,6,8	RW-1, -4, -5, -9, -10, -11, -14, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -36, -37, -38, -40, -41, -42, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	968	220	900	200	900	0.47	1.5	<0.12	<0.5	<0.55	<2.0	<0.13	<0.5	<0.12	<0.5	<0.23	<1.0	<0.38	<1.8
03/19/19	2,6,9	RW-1, -4, -5, -9, -10, -11, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, and -50; VEW-40; TFR-5, -7, -9, -10, -11, -13, -16, -19, -21, -24, -26, -28, -30, -35, -36, and -37	8015M & 8260M	766	270	1,100	240	1,100	0.72	2.3	<0.12	<0.50	<0.55	<2.0	<0.13	<0.50	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5
04/03/19	2,6,9	RW-1, -4, -5, -9, -10, -11, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, and -50; VEW-40; TFR-5, -7, -9, -10, -11, -13, -16, -19, -21, -24, -26, -28, -30, -35, -36, and -37	8015M & 8260M	--	--	--	190	--	0.28	0.91	<0.12	<0.50	<0.55	<2.0	<0.13	<0.50	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5
04/22/19	2,6,9	RW-1, -4, -5, -9, -10, -11, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, and -50; VEW-40; TFR-5, -7, -9, -10, -11, -13, -16, -19, -21, -24, -26, -28, -30, -35, -36, and -37	8015M & 8260M	4,681	--	--	600	--	2.9	9.2	0.28	1.2	<0.55	<2.0	<0.13	<0.50	0.13	0.58	0.41	1.8	0.54	2.38
05/06/19	2,6,9	RW-1, -4, -5, -9, -10, -11, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, and -50; VEW-40; TFR-5, -7, -9, -10, -11, -13, -16, -19, -21, -24, -26, -28, -30, -35, -36, and -37	8015M & 8260M	1,860	710	2,900	630	2,900	3.8	12	0.46	2.0	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	0.64	2.8	0.64	2.8
06/06/19	2,6,9	RW-1, -4, -5, -9, -10, -11, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, and -50; VEW-40; TFR-5, -7, -9, -10, -11, -12, -13, -14, -15, -16, -18, -19, -21, -22, -24, -26, -28, -29, -30, -32, -33, TF-17, TFR-18, TFR-19, TFR-22, TFR-25, TF-18, RTF-18-E, RTF-18-NW	8015M & 8260M	5,375	950	3,900	860	3,900	5.3	17	0.25	1.1	<0.55	<2.0	0.21	0.8	<0.12	<0.5	0.46	2.0	0.46	2.0

TABLE 8
Historical Summary of Analytical Vapor Sampling Results - Influent Thermal Oxidizer VES
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	VES Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		GRO as Hexane		Benzene		Ethylbenzene		MTBE		Toluene		o-Xylene		m,p-Xylenes		Total Xylenes	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
07/10/19	2,6,9	Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-24, TFR-30, TFR-33), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15, TFR-16), (TRF-5, TFR-7, TFR-9, TFR-10, TFR-12); Eastern Area - (RW-1, RW-11, RW-18, RW-13, RW-4, RW-5, RW-9, RW-10, TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Southern Area - (RW-23, RW-30, RW-31, RW-32, VEW-40, RW-26, RW-28, RW-24, RW-27, RW-33, RW-43, RW-22, RW-29, RW-45, RW-35, RW-40, RW-44, RW-36, RW-37, RW-41, RW-42, RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	1,962	2,100	8,500	1,900	8,500	5.3	17	0.37	1.6	<0.55	<2.0	0.58	2.2	0.25	1.1	0.78	3.4	3.65	4.5
08/05/19	6	Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15, TFR-16), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-18), (RW-13), (RW-4, RW-5, RW-9, RW-10); Southern Area - (RW-23), (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-24, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	1,932	2,700	11,000	2,500	11,000	6.6	21	0.37	1.6	<0.55	<2.0	0.77	2.9	0.25	1.1	0.94	4.1	4.35	5.2
09/09/19	6	Central Area - (TFR-21, TFR-26, TFR-27, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-13), (RW-4, RW-5, RW-9, RW-10); Southern Area - (RW-23), (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-24, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	2,180	2,300	9,600	2,100	9,600	5.0	16	1.0	4.4	<0.55	<2.0	0.72	2.7	0.28	1.2	1.6	6.9	7.18	8.1

Legend / Notes:

VES = Vapor extraction system

GRO = Gasoline range organics

MTBE = Methyl tertiary-butyl ether

OVA = Organic Vapor Analyzer (calibrated or correlated to Hexane)

ppmv = Parts per million by volume

µg/L = Micrograms per liter

<1 = Not detected at or above the Method Reporting Limit (MRL) shown.

-- = Not available or not analyzed

- Reported concentrations are shown in bold.

1 = Temporary thermal oxidizer VES started on 01/08/18.

2 = VES operations limited to daytime hours due to noise concerns from nearby residents.

3 = Noise abatement measures implemented in an effort to address concerns from nearby residents.

4 = Vapor extraction wells RW-3 through RW-6, RW-8, RW-11, RW-12, and RW-14 through RW-17 brought online 02/14/18 following the completion of installation and tie-in activities per SGI's June 30, 2017 *Remediation Well Installation Update Report*.

5 = No sample collected for analysis during February 2018 due to site condition and system operation status.

6 = Measured individual well concentrations and opened and/or closed select vapor extraction wells (see Table 9A through 9D for details).

7 = Vapor extraction wells RW-19, RW-20, RW-22, RW-24, RW-27 through RW-30, RW-32, RW-33, RW-35 through RW-38, and RW-40 through RW-50 brought online 6/27/18 following the completion of tie-in activities per SGI's June 30, 2017 report.

8 = Temporary thermal oxidizer VES shutdown on 01/08/2019.

9 = Permanent thermal oxidizer VES started on 03/13/2019.

TABLE 9A
Historical Summary of Field Vapor Readings - Former Tank Farm Horizontal Wells
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Depth for Horizontal Wells or Interval in Feet Below Grade for Vertical Wells					
			HW-1	HW-3 **	HW-5	HW-7 **	HW-8	HW-9
			25	25	25	25	60	220
07/09/14	1	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	69	20	140	4,176	--	--
07/18/14		VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	74	21	4,000	15,000	--	--
08/27/14	2	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	0.8	4.5	3.6	0.1	--	--
08/27/14	3	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	2.1	0	2.5	146.0	--	--
10/23/14	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	3.3	20.0	2.9	2	--	--
12/17/14	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	0	0	0	0.2	--	--
03/30/15	4,5	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	24	2	62	382.0	--	--
04/02/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	400	34	270	370	--	--
04/06/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	825	160	835	800	--	--
04/08/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	800	315	600	580	--	--
04/15/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	680	297	545	585	--	--
04/24/15	6	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	1,900	125	533	1,233	--	--
04/27/15	4,6	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	1,455	138	400	810	--	--
06/08/15	6,7	VEW-32, VEW-33, VEW-34	--	--	--	--	--	--
06/12/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	--
06/15/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	--
06/26/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	--
07/16/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	--
08/10/15	4,6,8	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5	1,947	28	676	732	--	--
08/20/15	6,9	VEW-32, VEW-33, HW-1, HW-3, HW-5	1,792	--	1,283	1,526	--	--
09/08/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	1,914	--	839	1,811	--	--
09/16/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	1,333	--	756	1,142	--	--
10/09/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	854	--	462	807	--	--
11/04/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	605	--	372	500	--	--
12/07/15	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	880	--	590	760	--	--
01/13/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	640	--	415	390	--	--
02/08/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	520	--	300	240	--	--
03/02/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	400	--	360	180	--	--
04/06/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	420	--	260	220	--	--
05/04/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	400	--	240	180	--	--

TABLE 9A
Historical Summary of Field Vapor Readings - Former Tank Farm Horizontal Wells
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Depth for Horizontal Wells or Interval in Feet Below Grade for Vertical Wells					
			HW-1	HW-3 **	HW-5	HW-7 **	HW-8	HW-9
			25	25	25	25	60	220
06/17/16	6	HW-1, HW-3, HW-5	740	--	470	330	--	--
07/06/16	6,10	HW-1, HW-3, HW-5	480	--	340	220	--	--
08/05/16	6	HW-1, HW-3, HW-5	240	4	190	230.0	--	--
09/01/16	6,10	HW-1, HW-3, HW-5	280	--	220	260	--	--
10/20/16	4,6,10,11	HW-1, HW-3, HW-5, HW-7	200	140	240	280	--	--
11/01/16	6,10	HW-1, HW-3, HW-5, HW-7	160	120	180	260	--	--
12/05/16	4,6,10	HW-1, HW-3, HW-5, HW-7	120	100	200	240	--	--
01/09/17	6,10	HW-1, HW-3, HW-5, HW-7	80	17	180	200	--	--
02/06/17	4,6,10	HW-1, HW-3, HW-5, HW-7	100	13	160	180	--	--
03/20/17	12	HW-1, HW-3, HW-5, HW-7	110	12	120	160	--	--
04/17/17		HW-1, HW-3, HW-5, HW-7	120	10	160	220	--	--
05/03/17		HW-1, HW-3, HW-5, HW-7	100	19	140	260	--	--
06/05/17		HW-1, HW-3, HW-5	107	15	82	211	--	--
07/19/17	13	HW-5, HW-7 and VEW-39	--	49	79	286	--	--
08/09/17	14,15	HW-1, HW-5, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	192	--	94	236	--	--
09/07/17	14,15	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	180	--	60	220	--	--
10/12/17	14,15	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	220	--	80	260	--	--
11/02/17	14,15	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	346	--	105	334	--	--
12/11/17	14,15	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	280	--	90	220	--	--
01/11/18	15,16	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, RW-9, RW-13, RW-18 and RW-26	160	--	120	340	--	--
02/12/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1 through RW-18, and RW-26	60	--	75	290	--	--
03/14/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	--	--	--	--	--	--
03/28/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	200	--	160	240	--	--
04/02/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	180	--	140	220	--	--
05/02/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	140	--	120	200	--	--
06/06/18	15	HW-1, HW-5, HW-7, VEW-39, RW-1, -4, -9, -10, -11, -13, -14 and -18	100	--	80	160	--	--
06/27/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	--	--	--	--	--	--
07/16/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	--	--	--	--	--	--
07/30/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	--	--	--	--	--	--
08/29/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	--	--	--	--	--	--

TABLE 9A
Historical Summary of Field Vapor Readings - Former Tank Farm Horizontal Wells
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Depth for Horizontal Wells or Interval in Feet Below Grade for Vertical Wells					
			HW-1	HW-3 **	HW-5	HW-7 **	HW-8	HW-9
			25	25	25	25	60	220
12/03/18	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46-, -47, -48, -49, -50	--	--	--	--	--	--
01/25/19	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46-, -47, -48, -49, -50	1,127	--	375	474	--	--
02/12/19	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46-, -47, -48, -49, -50	1,845	--	696	718	--	--
03/06/19	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46-, -47, -48, -49, -50	1,309	--	1,115	939	--	--
03/12/19	15,17	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46-, -47, -48, -49, -50	--	--	--	--	--	--
03/20/19	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46-, -47, -48, -49, -50	591	--	234	730	--	--
03/26/19	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46-, -47, -48, -49, -50	--	--	--	--	--	--
04/09/19	15,18	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46-, -47, -48, -49, -50	>15,000	--	1,541	1,725	--	--

Legend / Notes:

GRO = Gasoline range organics ppmv = Parts per million by volume OVA = Organic Vapor Analyzer -- = Readings not taken VES = Vapor extraction system

Concentrations measured using calibrated field OVA.

- 1 = Initial readings on carbon VES restart (off line since manually shut down on 05/29/14).
- 2 = Readings prior to well optimization.
- 3 = Readings following well optimization (closed wells VEW-35, VEW-36 and VEW-37 based on field OVA readings).
- 4 = Offline wells temporarily opened for monitoring, then returned to closed position.
- 5 = Readings collected following slightly opening well field valve to vapor extraction system.
- 6 = Select soil biopiles also online.
- 7 = Closed select vapor wells to focus extraction efforts on soil biopiles.
- 8 = Opened vapor extraction wells HW-1, HW-3 and HW-5 based on field OVA readings.
- 9 = Closed vapor extraction well VEW-34 on 8/19/15 based on low to non-detectable lab results (see Table 7 for details).
- 10 = Valved down vapor extraction wells HW-1, HW-3 and/or HW-5 while leaving all other wells closed to focus extraction efforts on soil biopiles.
- 11 = Opened vapor extraction well HW-7 based on field OVA reading.
- 12 = Ex-situ remediation project completed/all soil biopiles disconnected and well valves subsequently set to optimize carbon VES in accordance with recent field OVA readings and/or lab data.
- 13 = Wells VEW-38, VEW-39 and VEW-40 tied into carbon VES during late June 2017 following installation per SGI's March 14, 2017 Well Replacement Report and Work Plan.
- 14 = For full list of wells online, see SGI's November 15, 2017 *Remediation Status Report - Third Quarter 2017* and *February 15, 2018 Remediation Status Report - Fourth Quarter 2017*, respectively.
- 15 = See Tables 9B, 9C and 9D for applicable RW on line well field vapor readings.
- 16 = Wells VEW-38, VEW-39 and VEW-40 disconnected from carbon VES and tied into thermal oxidizer VES upon 01/08/18 startup (see SGI's May 15, 2018 *Remediation Status Report - First Quarter 2018* for details).
- 17 = New Thermal Oxidizer system startup on 3/13/19.
- 18 = VES Carbon system shutdown on 4/18/19 to replace blower.

* = Carbon VES only through 2017 and also includes thermal oxidizer VES wells online after 2017.

** = Tabulated data corrected after determining well HW-3 was incorrectly labeled as well HW-7 and vice versa during late July 2017 re-development work.

TABLE 9C
Historical Summary of Field Vapor Readings - Eastern Area Vertical Wells
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Interval in Feet Below Grade																							
			Truckline #1, VECV #1					Truckline #1, VECV #2					Truckline #1, VECV #3					Truckline #1, VECV #4				Truckline #1, VECV #5				
			RW-1	RW-6	RW-15	RW-16	RW-17	VEW-32	VEW-37	RW-2	RW-7	RW-11	VEW-33	VEW-36	RW-8	RW-12	RW-18	VEW-34	VEW-35	RW-13	RW-14	RW-3	RW-4	RW-5	RW-9	RW-10
			15 - 35	17 - 37	18 - 38	14 - 34	19 - 39	10 - 25	10 - 25	13 - 33	17 - 37	16 - 36	10 - 25	10 - 25	18.5 - 38.5	14 - 34	18 - 38	10 - 25	10 - 25	15 - 35	14 - 34	17 - 37	14 - 34	14 - 34	15 - 35	14 - 34
07/09/14	1	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	154	20	--	--	--	10	6.4	--	--	--	4.2	5.5	--	--	--	--	--	--	
07/18/14		VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	134	18	--	--	--	5.6	4.1	--	--	--	3.3	2.1	--	--	--	--	--	--	
08/27/14	2	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	6.3	0	--	--	--	0.4	0	--	--	--	0.4	0.2	--	--	--	--	--	--	
08/27/14	3	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	174	--	--	--	--	0.2	--	--	--	--	0	--	--	--	--	--	--	--	
10/23/14	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	191	151	--	--	--	22	9.1	--	--	--	8.0	28	--	--	--	--	--	--	
12/17/14	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	62	11	--	--	--	37	24	--	--	--	2.0	15	--	--	--	--	--	--	
03/30/15	4,5	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	2.5	1.0	--	--	--	0.1	20	--	--	--	0.3	4.8	--	--	--	--	--	--	
04/02/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	25	0	--	--	--	4.1	0	--	--	--	0	0	--	--	--	--	--	--	
04/06/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	171	0	--	--	--	5.7	0	--	--	--	3.0	0	--	--	--	--	--	--	
04/08/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	195	0	--	--	--	35	0	--	--	--	25	0	--	--	--	--	--	--	
04/15/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	273	0	--	--	--	223	0	--	--	--	87	0	--	--	--	--	--	--	
04/24/15	6	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
04/27/15	4,6	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	210	2.4	--	--	--	324	5.7	--	--	--	115	4.8	--	--	--	--	--	--	
06/08/15	6,7	VEW-32, VEW-33, VEW-34	--	--	--	--	--	180	--	--	--	--	130	--	--	--	--	40	--	--	--	--	--	--	--	
06/12/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	194	--	--	--	--	126	--	--	--	--	80	--	--	--	--	--	--	--	
06/15/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	158	--	--	--	--	77	--	--	--	--	39	--	--	--	--	--	--	--	
06/26/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	123	--	--	--	--	104	--	--	--	--	20	--	--	--	--	--	--	--	
07/16/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	256	--	--	--	--	147	--	--	--	--	17	--	--	--	--	--	--	--	
08/10/15	4,6,8	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5	--	--	--	--	--	456	3.9	--	--	--	334	2.2	--	--	--	63	16	--	--	--	--	--	--	
08/20/15	6,9	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	530	--	--	--	--	329	--	--	--	--	--	--	--	--	--	--	--	--	
09/08/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	395	--	--	--	--	162	--	--	--	--	--	--	--	--	--	--	--	--	
09/16/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	266	--	--	--	--	184	--	--	--	--	--	--	--	--	--	--	--	--	
10/09/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	343	--	--	--	--	258	--	--	--	--	--	--	--	--	--	--	--	--	
11/04/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	401	--	--	--	--	184	--	--	--	--	--	--	--	--	--	--	--	--	
12/07/15	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	327	14	--	--	--	246	12	--	--	--	88	22	--	--	--	--	--	--	
01/13/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	220	17	--	--	--	260	22	--	--	--	72	34	--	--	--	--	--	--	
02/08/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	160	11	--	--	--	220	28	--	--	--	55	42	--	--	--	--	--	--	
03/02/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	120	15	--	--	--	240	32	--	--	--	47	31	--	--	--	--	--	--	
04/06/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	60	12	--	--	--	380	18	--	--	--	29	22	--	--	--	--	--	--	
05/04/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	90	19	--	--	--	340	25	--	--	--	36	18	--	--	--	--	--	--	
06/17/16	6	HW-1, HW-3, HW-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

TABLE 9C
Historical Summary of Field Vapor Readings - Eastern Area Vertical Wells
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Interval in Feet Below Grade																							
			Truckline #1, VECV #1					Truckline #1, VECV #2					Truckline #1, VECV #3					Truckline #1, VECV #4				Truckline #1, VECV #5				
			RW-1	RW-6	RW-15	RW-16	RW-17	VEW-32	VEW-37	RW-2	RW-7	RW-11	VEW-33	VEW-36	RW-8	RW-12	RW-18	VEW-34	VEW-35	RW-13	RW-14	RW-3	RW-4	RW-5	RW-9	RW-10
			15 - 35	17 - 37	18 - 38	14 - 34	19 - 39	10 - 25	10 - 25	13 - 33	17 - 37	16 - 36	10 - 25	10 - 25	18.5 - 38.5	14 - 34	18 - 38	10 - 25	10 - 25	15 - 35	14 - 34	17 - 37	14 - 34	14 - 34	15 - 35	14 - 34
07/06/16	6,10	HW-1, HW-3, HW-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08/05/16	6	HW-1, HW-3, HW-5	--	--	--	--	--	20	8.3	--	--	--	140	34	--	--	--	11	9.0	--	--	--	--	--	--	--
09/01/16	6,10	HW-1, HW-3, HW-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/20/16	4,6,10,11	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	32	6.4	--	--	--	80	30	--	--	--	9.1	7.3	--	--	--	--	--	--	--
11/01/16	6,10	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/05/16	4,6,10	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	20	7.1	--	--	--	60	20	--	--	--	17	8.8	--	--	--	--	--	--	--
01/09/17	6,10	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
02/06/17	4,6,10	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	12	5.4	--	--	--	45	14	--	--	--	11	6.1	--	--	--	--	--	--	--
03/20/17	12	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
04/17/17		HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
05/03/17		HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	15	6.7	--	--	--	33	19	--	--	--	17	8.1	--	--	--	--	--	--	--
06/05/17		HW-1, HW-3, HW-5	--	--	--	--	--	10	11	--	--	--	14	12	--	--	--	8.0	7.1	--	--	--	--	--	--	--
07/19/17	13	HW-5, HW-7 and VEW-39	--	--	--	--	--	12	4.8	--	--	--	47	6.2	--	--	--	9.3	4.1	--	--	--	--	--	--	--
08/09/17	1,2,3	HW-1, HW-5, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	1,268	--	--	--	--	5.5	5.4	16	120	--	27	3.7	--	76	374	7.7	2.3	2,440	--	--	--	--	1,164	--
09/07/17	2,3	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	3,860	--	--	--	--	9.2	10	99	495	--	20	14	--	90	679	11	5.5	2,870	--	--	--	--	320	--
10/12/17	2,3	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	2,480	--	--	--	--	13	12	75	310	--	28	19	--	120	580	14	9.3	2,620	--	--	--	--	660	--
11/02/17	2,2	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	3,140	--	--	--	--	10	9.1	50	225	--	23	15	--	140	430	11	6.6	3,200	--	--	--	--	840	--
12/11/17	2,3	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	2,250	--	--	--	--	7.7	9.1	60	180	--	20	8.8	--	80	350	9.3	5.1	3,040	--	--	--	--	590	--
03/14/18	4,5	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	2,520	15	12	40	28	7.2	4.3	31	181	420	2.4	0.4	5.1	5.5	937	8.1	7.3	2,000	1,235	68	598	4,600	2,824	>10,000
06/27/19			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/16/18	4,5	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	725	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/30/18	4,5	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	--	--	--	--	--	--	--	401	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08/29/18	4,5	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	--	--	--	--	--	--	--	475	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/03/18	4,5	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	--	--	--	--	--	--	--	--	641	--	--	--	952	--	--	--	8,157	--	>15,000	>15,000	>15,000	>15,000	
03/12/19	3,6	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	190	0	0	16	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/27/19	3,6	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	838	0	--	--	--	--	--	402	--	1,172	--	--	--	992	--	--	13,772	--	--	1,021	1,850	6,280	2,150	
06/05/19	3	RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	574	--	--	--	--	--	--	--	--	10	--	--	--	420	--	--	3,420	--	--	776	1,083	4,210	1,143	
07/23/19	3	(RW-1), (RW-11), (RW-18), (RW-13), (RW-4, RW-5, RW-9, RW-10)	643	--	--	--	--	--	--	--	--	6	--	--	--	130	--	--	724.0	--	--	851	805	2,750	1,238	

TABLE 9C
Historical Summary of Field Vapor Readings - Eastern Area Vertical Wells
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Interval in Feet Below Grade																							
			Truckline #1, VECV #1					Truckline #1, VECV #2					Truckline #1, VECV #3					Truckline #1, VECV #4				Truckline #1, VECV #5				
			RW-1	RW-6	RW-15	RW-16	RW-17	VEW-32	VEW-37	RW-2	RW-7	RW-11	VEW-33	VEW-36	RW-8	RW-12	RW-18	VEW-34	VEW-35	RW-13	RW-14	RW-3	RW-4	RW-5	RW-9	RW-10
08/26/19	3,7	(RW-1), (RW-18), (RW-13), (RW-4, RW-5, RW-9, RW-10)	678	2	3	19	3	--	--	33	52	5	--	40.0	37	7	7	13.0	7.0	1,520	1,380	522	430	512	1,455	502
09/23/19	3	(RW-1), (RW-13), (RW-4, RW-5, RW-9, RW-10)	682	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	177.0	258.0	306.0	179.0	145	679	637

Legend / Notes:

GRO = Gasoline range organics ppmv = Parts per million by volume OVA = Organic Vapor Analyzer -- = Readings not taken VES = Vapor extraction system
 Concentrations measured using calibrated field OVA.

- 1 = Wells RW-1, RW-2, RW-7, RW-9, RW-12, RW-13 and RW-18 initially tied into carbon VES during early August 2017 following installation per SGI's June 30, 2017 *Remediation Well Installation Update Report*.
- 2 = For full list of wells on line, see SGI's November 15, 2017 *Remediation Status Report - Third Quarter 2017* and *February 15, 2018 Remediation Status Report - Fourth Quarter 2017*, respectively.
- 3 = See Tables 9A, 9B and 9D for applicable HW, VEW and RW on line well field vapor readings.
- 4 = Wells RW-1, RW-2, RW-7, RW-9, RW-12, RW-13 and RW-18 disconnected from carbon VES and tied into thermal oxidizer VES upon 01/08/18 startup.
- 5 = Wells RW-3 through RW-6, RW-8, RW-10, RW-11, and RW-14 through RW-17 tied into thermal oxidizer VES during mid-February 2018 following installation per SGI's June 30, 2017 *Remediation Well Installation Update Report*.
- 6 = New Thermal Oxidizer system startup on 3/13/19.
- 7 = Closed wells were opened to check for rebound concentrations.
- * = Carbon VES only through 2017 and also includes thermal oxidizer VES wells online after 2017.

TABLE 9D
Historical Summary of Field Vapor Readings - Southern Area Vertical Wells
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Interval in Feet Below Grade																																				
			Trunkline #2, VECV #6		Trunkline #2, VECV #7					Trunkline #2, VECV #8					Trunkline #2, VECV #9					Trunkline #2, VECV #10					Trunkline #2, VECV #11					Trunkline #2, VECV #12					Trunkline #2, VECV #13				
			RW-21	RW-23	VEW-39	RW-30	RW-31	RW-32	RW-34	VEW-38	VEW-40	RW-26	RW-28	RW-24	RW-25	RW-27	RW-33	RW-43	RW-19	RW-20	RW-22	RW-23	RW-45	RW-35	RW-38	RW-39	RW-40	RW-44	RW-36	RW-37	RW-41	RW-42	RW-46	RW-47	RW-48	RW-49	RW-50		
08/09/17	1,2	HW-1, HW-5, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	160	787	--	6,550	7,165	820	--	--	4,340	8,420	1,525	--	--	1,230	--	--	129	1,775	620	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
09/07/17	2	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	110	141	--	8,240	3,400	715	--	--	3,290	8,080	1,423	--	--	836	--	--	58	1,379	1,123	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
10/12/17	2	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	165	340	--	5,800	5,200	955	--	--	3,880	9,190	1,200	--	--	900	--	--	220	1,800	818	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
11/02/17	2	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	140	250	--	7,330	4,300	1,060	--	--	2,900	6,400	1,770	--	--	620	--	--	170	1,410	909	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
12/11/17	2	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	120	230	--	6,400	3,900	700	--	--	3,400	7,170	1,605	--	--	510	--	--	190	1,660	764	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
03/14/18		HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	80	320	--	2,900	1,730	800	--	--	1,800	3,100	950	--	--	180	--	--	280	840	660	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
06/27/18	3	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	55	1,896	--	32	80	421	80	--	1,821	5,000	459	89	1,215	843	--	43	42	2,595	2,563	--	416	134	24	1,782	--	452	1,509	849	3,040	--	191	886	728	56			
07/30/18	3	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -51	--	--	--	1,630	1,253	--	--	3,261	>15,000	1,383	--	767	1,283	--	--	--	2,928	1,341	--	522	--	--	778	--	2,166	1,930	--	>15,000	--	3,968	672	1,008	692				
08/29/18	3	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -51	--	475	--	4,160	3,378	1,715	1,630	--	>15,000	2,127	>15,000	1,320	--	699	1,324	--	--	2,558	1,721	--	658	--	--	856	--	2,616	2,049	4,925	>15,000	--	4,460	641	2,359	674			
12/03/18	3	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27-28, -29, -35, -40, -44, -30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	389	--	4,373	4,284	--	3,378	--	--	>15,000	857	--	2,685	1,013	--	--	--	362	--	--	532	--	--	538	--	1,507	1,123	>15,000	>15,000	--	--	596	61	309			
03/27/19	3	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27-28, -29, -35, -40, -44, -30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	402	--	1,613	3,764	1,013	4,284	--	>15,000	316	4,400	124	--	214	975	--	--	402	--	--	399	--	--	1,116	--	961	715	5,575	>15,000	--	>15,000	549	2,740	--			
05/08/19	3	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27-28, -29, -35, -40, -44, -30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	14	--	--	--	283	3,764	--	--	--	--	--	--	7	--	--	--	569	172	--	--	--	14	94	--	--	--	>15,000	248	--	1,107	709	2,740	--			
05/31/19	3	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27-28, -29, -35, -40, -44, -30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	13	--	1,326	896	325	--	--	246	3,960	85	--	80	181	--	--	--	493	223	--	--	--	--	--	--	--	--	--	--	--	--	--	42	--	--		
06/05/19		HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27-28, -29, -35, -40, -44, -30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	177	--	--	--	--	1,414	--	384	639	1,107	581	--			
07/22/19		(RW-23), (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-24, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	23	--	827	679	293	--	2,250	370	3,880	145	--	75	205	61	--	--	634	311	65	123	--	--	203	224	461	245	1,743	1,465	--	383	780	1,175	688			
08/26/19	7	(RW-23), (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-24, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	4	11	10	431	407	331	15	25	2,460	229	2,440	154	12	64	189	42	10	10	505	211	59	98	74	7	135	179	235	153	986	813	75	397	794	950	630		
9/7/19		(RW-23), (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-24, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	12	--	453	340	325	--	23	1,670	233	1,752	89	--	47	180	44	--	--	578	320	29	101	--	--	126	15	316	264	1,113	750	--	147	313	128	267		

Legend / Notes:
 GRO = Gasoline range organics ppmv = Parts per million by volume OVA = Organic Vapor Analyzer -- = Readings not taken VES = Vapor extraction system
 Concentrations measured using calibrated field OVA.
 1 = Wells RW-20 through RW-24, RW-26, and RW-28 through RW-33 initially tied into carbon VES during early August 2017 following installation per SGI's June 30, 2017 Remediation Well Installation Update Report.
 2 = For full list of wells on line, see SGI's November 15, 2017 Remediation Status Report - Third Quarter 2017 and February 15, 2018 Remediation Status Report - Fourth Quarter 2017, respectively.
 3 = See Tables 9A, 9B and 9C for applicable HW, VEW and RW on line well field vapor readings.
 4 = Wells RW-20 through RW-24, RW-26, and RW-28 through RW-33 disconnected from carbon VES and tied into thermal oxidizer VES upon 01/08/18 startup (see SGI's May 15, 2018 Remediation Status Report - First Quarter 2018 for details).
 5 = Wells RW-19, RW-25, RW-27, RW-34, and RW-39 through RW-46 tied into thermal oxidizer VES during late June 2018 following installation per SGI's July 2018 Well Installation Completion Report.
 6 = New Thermal Oxidizer system startup on 3/13/19.
 7 = Closed wells were opened to check for rebound concentrations.
 * = Carbon VES only through 2017 and also includes thermal oxidizer VES wells online after 2017.

TABLE 10
Historical Summary of Analytical Vapor Sampling Results - Individual Wells
 DFSP, Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Well ID	Sample Date	Notes	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
RW-33	08/16/17	5	8015M & 8260M	1,230	860	3,500	<0.16	<0.50	<0.13	<0.50	0.44	1.9	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	09/07/17			836	640	2,600	<0.16	<0.50	<0.13	<0.50	0.35	1.5	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	06/27/18	4		843	210	840	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-34	06/27/18	4		46	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-35	06/27/18	4		416	83	340	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-36	06/27/18	4		452	440	1,800	<0.78	<2.5	<0.66	<2.5	<0.58	<2.5	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RW-37	06/27/18	4		1,509	210	850	<0.31	<1.0	<0.27	<1.0	<0.23	<1.0	<0.23	<1.0	<0.46	<2.0	<1.1	<4.0
RW-38	06/27/18	4		134	24	100	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-39	06/27/18	4		24	37	150	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-40	06/27/18	4		1,782	2,900	12,000	<0.78	<2.5	<0.66	<2.5	0.78	3.4	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RW-41	06/27/18	4		849	1,300	5,300	<0.78	<2.5	<0.66	<2.5	<0.58	<2.5	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RW-42	06/27/18	4		3,040	1,500	6,200	<0.78	<2.5	<0.66	<2.5	<0.58	<2.5	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RW-43	06/27/18	4		886	230	950	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-44	06/27/18	4		728	88	360	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	2.2	9.4	0.60	2.6	<0.55	<2.0
RW-45	06/27/18	4		56	14	57	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	0.12	0.50	<0.23	<1.0	<0.55	<2.0
RW-46	06/27/18	4		191	44	180	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-47	06/27/18	4		751	240	1,000	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-48	06/27/18	4		1,454	540	2,200	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-49	06/27/18	4		823	180	720	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-50	06/27/18	4		5,000	1,600	6,500	<0.78	<2.5	<0.66	<2.5	1.2	5.0	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RTF-18-NW	10/05/17	7		9,000	16,000	67,000	100	330	0.18	0.66	12	52	13	56	60	260	<0.55	<2.0
	10/09/17	7		3,635	18,000	72,000	170	550	<1.3	<5.0	17	75	19	83	92	400	<5.5	<20

Legend / Notes:

GRO = Gasoline range organics

OVA = Organic Vapor Analyzer (calibrated or correlated to Hexane)

MTBE = Methyl tertiary-butyl ether

ppmv = Parts per million by volume

µg/L = Micrograms per liter

<0.6 = Not detected at or above the method reporting limit (MRL) shown.

-- = Not measured

- Reported concentrations are shown in bold.

1 = Samples collected following system restart (off line since manual shut down on 05/29/14).

2 = Field OVA reading from 01/09/17.

3 = System tie in work to allow for vapor extraction completed during late June 2017 following installation per SGI's March 14, 2017 *Well Replacement Report and Work Plan*.

4 = System tie in work to allow for vapor extraction completed during late June 2018 following installation per SGI's July 2018 *Well Installation Completion Report*.

5 = System tie in work to allow for vapor extraction completed during early August 2017 following installation per SGI's June 30, 2017 *Remediation Well Installation Update Report*.

6 = System tie in work to allow for vapor extraction completed during mid-February 2018 following installation per SGI's June 30, 2017 *Remediation Well Installation Update Report*.

7 = Well temporarily utilized as an extraction point as part of vacuum enhanced LNAPL recovery testing per SGI's July 2018 *LNAPL Recovery Testing Report*.

* = Tabulated data corrected after determining well HW-3 was incorrectly labeled as well HW-7 and vice versa during late July 2017 re-development work.

TABLE 11A
Biosparge System Operations Summary - July
 DFSP Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	Cumulative Blower Runtime (hours)	Blower Discharge Pressure (psig)	Blower Discharge Temperature (°F)	HE Outlet Temperature (°F)	Main Header Pressure (psig)	Sparge Total Flow (in WC)	Sparge Total Pressure (psig)	Sparge Total Temperature (°F)
07/01/19	*		1564.2	--	--	--	--	5.5	--	--
07/02/19	*		1557.9	--	--	--	--	5.5	--	--
07/03/19	*		1551.5	--	--	--	--	5.5	--	--
07/04/19	*		1545.2	--	--	--	--	5.5	--	--
07/05/19	Technician		1538.9	12	260	104	13	6	12	96
07/06/19	*		1551.7	--	--	--	--	6	--	--
07/07/19	*		1564.4	--	--	--	--	6	--	--
07/08/19	Technician		1577.2	14	260	96	14	6	13	94
07/09/19	*		1590.3	--	--	--	--	6	--	--
07/10/19	*		1603.3	--	--	--	--	6	--	--
07/11/19	*		1616.4	--	--	--	--	6	--	--
07/12/19	*		1629.5	--	--	--	--	6	--	--
07/13/19	*		1642.5	--	--	--	--	6	--	--
07/14/19	*		1655.6	--	--	--	--	6	--	--
07/15/19	*		1668.7	--	--	--	--	6	--	--
07/16/19	*		1681.7	--	--	--	--	6	--	--
07/17/19	*		1694.8	--	--	--	--	6	--	--
07/18/19	*		1707.9	--	--	--	--	6	--	--
07/19/19	*		1720.9	--	--	--	--	6	--	--
07/20/19	*		1734.0	--	--	--	--	6	--	--
07/21/19	*		1747.0	--	--	--	--	6	--	--
07/22/19	*		1760.1	--	--	--	--	6	--	--
07/23/19	*		1773.2	--	--	--	--	6	--	--
07/24/19	*		1786.2	--	--	--	--	6	--	--
07/25/19	*		1799.3	--	--	--	--	6	--	--
07/26/19	*		1812.4	--	--	--	--	6	--	--
07/27/19	*		1825.4	--	--	--	--	6	--	--
07/28/19	*		1838.5	--	--	--	--	6	--	--
07/29/19	*		1851.6	--	--	--	--	6	--	--
07/30/19	*		1864.6	--	--	--	--	6	--	--
07/31/19	Technician		1877.7	12	255	106	13	6	12	100

Legend / Notes:

System operating under SCAQMD Various Locations Permit #G52288
 Biosparge wells on line this month (grouped by location):
Central Area - (BSP-25, BSP-26, BSP-28, BSP-29, BSP-30), (BSP-21, BSP-22, BSP-23, BSP-24, BSP-27). Eastern Area - (BSP-10, BSP-11, RW-11), (BSP-12, BSP-13, RW-18), (BSP-14, RW-4, RW-5, RW-9, RW-10, RW-14).

psig = pounds per square inch
 in. WC = inches of water column
 °F = Degrees Fahrenheit
 NA = Not available
 HE = Heat Exchanger
 -- = Not applicable or not measured
 * = Operational values interpolated from chart recorder data or previous monitoring event.

TABLE 11B
Biosparge System Operations Summary - August
 DFSP Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	Cumulative Blower Runtime (hours)	Blower Discharge Pressure (psig)	Blower Discharge Temperature (°F)	HE Outlet Temperature (°F)	Main Header Pressure (psig)	Sparge Total Flow (in WC)	Sparge Total Pressure (psig)	Sparge Total Temperature (°F)
08/01/19			2106.5	--	--	--	--	6	--	--
08/03/19	*		2108.6	--	--	--	--	6	--	--
08/04/19	*		2109.7	--	--	--	--	6	--	--
08/05/19	*		2110.7	--	--	--	--	6	--	--
08/06/19	*		2111.8	--	--	--	--	6	--	--
08/07/19	*		2112.8	--	--	--	--	6	--	--
08/08/19	*		2113.9	--	--	--	--	6	--	--
08/09/19	*		2115.0	--	--	--	--	6	--	--
08/10/19	*		2116.0	--	--	--	--	6	--	--
08/11/19	*		2117.1	--	--	--	--	6	--	--
08/12/19	*		2118.1	--	--	--	--	6	--	--
08/13/19	*		2119.2	--	--	--	--	6	--	--
08/14/19	*		2120.2	--	--	--	--	6	--	--
08/15/19	*		2121.3	--	--	--	--	6	--	--
08/16/19	*		2122.3	--	--	--	--	6	--	--
08/17/19	*		2123.4	--	--	--	--	6	--	--
08/18/19	*		2124.4	--	--	--	--	6	--	--
08/19/19	Technician		2125.5	13	250	93	13	7	12	92
08/20/19	*		2138.9	--	--	--	--	7	--	--
08/21/19	*		2152.3	--	--	--	--	7	--	--
08/22/19	*		2165.7	--	--	--	--	7	--	--
08/23/19	Technician		2179.1	9	230	106	8	8	7	100
08/24/19	*		2199.3	--	--	--	--	8	--	--
08/25/19	*		2219.6	--	--	--	--	8	--	--
08/26/19	*		2239.8	--	--	--	--	8	--	--
08/27/19	*		2260.0	--	--	--	--	8	--	--
08/28/19	*		2280.2	--	--	--	--	8	--	--
08/29/19	*		2300.5	--	--	--	--	8	--	--
08/30/19	*		2320.7	--	--	--	--	8	--	--
08/31/19	*		2340.9	--	--	--	--	8	--	--

Legend / Notes:

1 = Southern Area BSP wells turned on 8/23/19.

System operating under SCAQMD Various Locations Permit #G52288

Biosparge wells on line this month (grouped by location):

Central Area - (BSP-25, BSP-26, BSP-28, BSP-29, BSP-30), (BSP-21, BSP-22, BSP-23, BSP-24, BSP-27). Eastern Area- (BSP-10, BSP-11, RW-11), (BSP-12, BSP-13, RW-18), (BSP-14, RW-4, RW-5, RW-9, RW-10, RW-14); Southern Area - (

psig = pounds per square inch

in. WC = inches of water column

°F = Degrees Fahrenheit

NA = Not available

HE = Heat Exchanger

-- = Not applicable or not measured

* = Operational values interpolated from chart recorder data or previous monitoring event.

TABLE 11C
Biosparge System Operations Summary - September
 DFSP Norwalk
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	Cumulative Blower Runtime (hours)	Blower Discharge Pressure (psig)	Blower Discharge Temperature (°F)	HE Outlet Temperature (°F)	Main Header Pressure (psig)	Sparge Total Flow (in WC)	Sparge Total Pressure (psig)	Sparge Total Temperature (°F)
09/01/19	*		2361.1	--	--	--	--	8	--	--
09/02/19	*		2381.4	--	--	--	--	8	--	--
09/03/19	*		2401.6	--	--	--	--	8	--	--
09/04/19	Technician		2421.8	11	275	126	11	6.5	11	120
09/05/19	*		2445.5	--	--	--	--	6.5	--	--
09/06/19	*		2469.2	--	--	--	--	6.5	--	--
09/07/19	*		2492.9	--	--	--	--	6.5	--	--
09/08/19	*		2516.6	--	--	--	--	6.5	--	--
09/09/19	Technician		2540.3	8	245	107	12	8.0	10.5	90
09/10/19	*		2564.5	--	--	--	--	5.0	--	--
09/11/19	*		2588.6	--	--	--	--	5.0	--	--
09/12/19	*		2612.8	--	--	--	--	5.0	--	--
09/13/19	*		2637.0	--	--	--	--	5.0	--	--
09/14/19	*		2661.2	--	--	--	--	5.0	--	--
09/15/19	*		2685.3	--	--	--	--	5.0	--	--
09/16/19	Technician		2709.5	8	245	107	12	7.0	11	105
09/17/19	*		2731.1	--	--	--	--	5.0	--	--
09/18/19	*		2752.6	--	--	--	--	5.0	--	--
09/19/19	*		2774.2	--	--	--	--	5.0	--	--
09/20/19	Technician		2795.7	16	270	108	17	6.0	16	108
09/21/19	*		2819.6	--	--	--	--	5.0	--	--
09/22/19	*		2843.5	--	--	--	--	5.0	--	--
09/23/19	*		2867.4	--	--	--	--	5.0	--	--
09/24/19	*		2891.3	--	--	--	--	5.0	--	--
09/25/19	*		2915.2	--	--	--	--	5.0	--	--
09/26/19	*		2939.1	--	--	--	--	5.0	--	--
09/27/19	*		2963.0	--	--	--	--	5.0	--	--
09/28/19	*		2986.9	--	--	--	--	5.0	--	--
09/29/19	*		3010.8	--	--	--	--	5.0	--	--
09/30/19	*		3034.7	--	--	--	--	5.0	--	--

Legend / Notes:

1 = Southern Area BSP wells turned on 8/23/19.

System operating under SCAQMD Various Locations Permit #G52288

Biosparge wells on line this month (grouped by location):

Central Area - (BSP-25, BSP-26, BSP-28, BSP-29, BSP-30), (BSP-21, BSP-22, BSP-23, BSP-24, BSP-27). Eastern - (BSP-10, BSP-11, RW-11), (BSP-12, BSP-13, RW-18), (BSP-14, RW-4, RW-5, RW-9, RW-10, RW-14); Southern - (

psig = pounds per square inch

in. WC = inches of water column

°F = Degrees Fahrenheit

NA = Not available

HE = Heat Exchanger

-- = Not applicable or not measured

* = Operational values interpolated from chart recorder data or previous monitoring event.

APPENDIX A

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS



9765 Eton Avenue
Chatsworth
California 91311
Tel: (818) 998-5547
Fax: (818) 998-7258

July 19, 2019

Neil Irish

The Source Group, Inc. (SH)
1962 Freeman Ave.
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013
A5333099 / 9G10010**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 07/10/19 13:05 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile'.

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333099
Date Received: 07/10/19
Date Reported: 07/19/19

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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GRO in Vapor as Hexane

Thermox Influent	9G10010-01	Vapor	5	07/10/19 09:59	07/10/19 13:05
Thermox Effluent	9G10010-02	Vapor	5	07/10/19 09:53	07/10/19 13:05

VOCs BTEX/MTBE Vapor GC/MS

Thermox Influent	9G10010-01	Vapor	5	07/10/19 09:59	07/10/19 13:05
Thermox Effluent	9G10010-02	Vapor	5	07/10/19 09:53	07/10/19 13:05

VOCs Gasoline Range Organics Vapor

Thermox Influent	9G10010-01	Vapor	5	07/10/19 09:59	07/10/19 13:05
Thermox Effluent	9G10010-02	Vapor	5	07/10/19 09:53	07/10/19 13:05

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS****Client:** The Source Group, Inc. (SH)**Project No:** 04-NDLA-013**Project Name:** DFSP Norwalk VES AQMD**Matrix:** Vapor**Dilution:** 1**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M**AA Project No:** A5333099**Date Received:** 07/10/19**Date Reported:** 07/19/19**Sampled:** 07/10/19**Prepared:** 07/11/19**Analyzed:** 07/11/19**Thermox Influent
9G10010-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	17	ug/L	0.50	5.3	ppmv	0.16
Ethylbenzene	1.6	ug/L	0.50	0.37	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<2.0	ug/L	2.0	<0.55	ppmv	0.55
Toluene	2.2	ug/L	0.50	0.58	ppmv	0.13
o-Xylene	1.1	ug/L	0.50	0.25	ppmv	0.12
m,p-Xylenes	3.4	ug/L	1.0	0.78	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	88.7 %	70-140
Dibromofluoromethane	107 %	70-140
Toluene-d8	93.8 %	70-140

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Matrix: Vapor
Dilution: 0.5
Method: VOCs BTEX/MTBE Vapor by GC/MS 8260M

AA Project No: A5333099
Date Received: 07/10/19
Date Reported: 07/19/19
Sampled: 07/10/19
Prepared: 07/11/19
Analyzed: 07/11/19

Thermax Effluent
9G10010-02 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	90.3 %	70-140
Dibromofluoromethane	94.3 %	70-140
Toluene-d8	95.3 %	70-140

Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Matrix: Vapor
Dilution: 5
Method: Gasoline Range Organics in Vapor by GC/FID

AA Project No: A5333099
Date Received: 07/10/19
Date Reported: 07/19/19
Sampled: 07/10/19
Prepared: 07/11/19
Analyzed: 07/11/19

Thermox Influent
9G10010-01 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	8500	ug/L	20	2100	ppmv	4.9
Surrogates		%REC			%REC Limits	
a,a,a-Trifluorotoluene		110 %			70-130	

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Matrix: Vapor
Dilution: 1
Method: Gasoline Range Organics in Vapor by GC/FID

AA Project No: A5333099
Date Received: 07/10/19
Date Reported: 07/19/19
Sampled: 07/10/19
Prepared: 07/11/19
Analyzed: 07/11/19

Thermax Effluent
9G10010-02 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
Surrogates		%REC			%REC Limits	
a,a,a-Trifluorotoluene		99.0 %			70-130	

Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Method: GRO in Vapor as Hexane

AA Project No: A5333099
Date Received: 07/10/19
Date Reported: 07/19/19
Units: ppmv

Date Sampled:	07/10/19	07/10/19	
Date Prepared:	07/11/19	07/11/19	
Date Analyzed:	07/11/19	07/11/19	
AA ID No:	9G10010-01	9G10010-02	
Client ID No:	Thermox Influent	Thermox Effluent	
Matrix:	Vapor	Vapor	
Dilution Factor:	5	1	MRL

GRO in Vapor as Hexane (EPA 8015M)

GRO as Hexane	1900	<5.7	5.7
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Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333099
Date Received: 07/10/19
Date Reported: 07/19/19

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control										
<i>Batch B9G1103 - *** DEFAULT PREP ***</i>										
Blank (B9G1103-BLK1)				Prepared & Analyzed: 07/11/19						
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	49.5		ug/L	50		99.1	70-140			
<i>Surrogate: Dibromofluoromethane</i>	53.3		ug/L	50		107	70-140			
<i>Surrogate: Toluene-d8</i>	49.6		ug/L	50		99.3	70-140			
LCS (B9G1103-BS1)				Prepared & Analyzed: 07/11/19						
Benzene	19.3	0.50	ug/L	20		96.7	75-125			
Ethylbenzene	22.4	0.50	ug/L	20		112	75-125			
Methyl-tert-Butyl Ether (MTBE)	51.8	2.0	ug/L	40		130	75-125			**
Toluene	21.3	0.50	ug/L	20		106	75-125			
o-Xylene	21.9	0.50	ug/L	20		109	75-125			
m,p-Xylenes	43.3	1.0	ug/L	40		108	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	48.8		ug/L	50		97.7	70-140			
<i>Surrogate: Dibromofluoromethane</i>	53.9		ug/L	50		108	70-140			
<i>Surrogate: Toluene-d8</i>	48.5		ug/L	50		96.9	70-140			
LCS Dup (B9G1103-BSD1)				Prepared: 07/11/19 Analyzed: 07/12/19						
Benzene	14.4	0.50	ug/L	20		72.1	75-125	29.1	30	***
Ethylbenzene	19.2	0.50	ug/L	20		95.8	75-125	15.7	30	
Methyl-tert-Butyl Ether (MTBE)	37.5	2.0	ug/L	40		93.8	75-125	32.0	30	AA-C1
Toluene	18.3	0.50	ug/L	20		91.4	75-125	15.2	30	
o-Xylene	19.6	0.50	ug/L	20		97.8	75-125	11.2	30	
m,p-Xylenes	39.0	1.0	ug/L	40		97.4	75-125	10.5	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	46.2		ug/L	50		92.3	70-140			
<i>Surrogate: Dibromofluoromethane</i>	45.7		ug/L	50		91.4	70-140			
<i>Surrogate: Toluene-d8</i>	47.7		ug/L	50		95.4	70-140			
Duplicate (B9G1103-DUP1)				Source: 9G10010-01 Prepared & Analyzed: 07/11/19						

Viorel Vasile
 Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333099
Date Received: 07/10/19
Date Reported: 07/19/19

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control										
<i>Batch B9G1103 - *** DEFAULT PREP ***</i>										
Duplicate (B9G1103-DUP1) Continued Source: 9G10010-01 Prepared & Analyzed: 07/11/19										
Benzene	15.6	0.50	ug/L		16.9			8.38	30	
Ethylbenzene	1.67	0.50	ug/L		1.55			7.45	30	
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L		<2.0				30	
Toluene	2.34	0.50	ug/L		2.17			7.54	30	
o-Xylene	1.18	0.50	ug/L		1.10			7.02	30	
m,p-Xylenes	3.68	1.0	ug/L		3.45			6.45	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	43.5		ug/L	50		87.0	70-140			
<i>Surrogate: Dibromofluoromethane</i>	48.8		ug/L	50		97.7	70-140			
<i>Surrogate: Toluene-d8</i>	47.2		ug/L	50		94.5	70-140			
Gasoline Range Organics in Vapor by GC/FID - Quality Control										
<i>Batch B9G1104 - *** DEFAULT PREP ***</i>										
Blank (B9G1104-BLK1) Prepared & Analyzed: 07/11/19										
Gasoline Range Organics (GRO)	<20	20	ug/L							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	47.3		ug/L	50		94.7	70-130			
LCS (B9G1104-BS1) Prepared & Analyzed: 07/11/19										
Gasoline Range Organics (GRO)	403	20	ug/L	500		80.6	75-125			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	46.9		ug/L	50		93.8	70-130			
LCS Dup (B9G1104-BSD1) Prepared & Analyzed: 07/11/19										
Gasoline Range Organics (GRO)	432	20	ug/L	500		86.4	75-125	6.99	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	54.1		ug/L	50		108	70-130			
Duplicate (B9G1104-DUP1) Source: 9G10010-01 Prepared & Analyzed: 07/11/19										
Gasoline Range Organics (GRO)	8140	100	ug/L		8530			4.70	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	57.0		ug/L	50		114	70-130			
Duplicate (B9G1104-DUP2) Source: 9G10013-01 Prepared & Analyzed: 07/11/19										
Gasoline Range Organics (GRO)	685	20	ug/L		508			29.6	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	58.0		ug/L	50		116	70-130			

GRO in Vapor as Hexane - Quality Control*Batch B9G1104 - *** DEFAULT PREP ****

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333099
Date Received: 07/10/19
Date Reported: 07/19/19

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
GRO in Vapor as Hexane - Quality Control										
<i>Batch B9G1104 - *** DEFAULT PREP ***</i>										
Blank (B9G1104-BLK1)										
Prepared & Analyzed: 07/11/19										
GRO as Hexane	<5.7	5.7	ppmv							
Duplicate (B9G1104-DUP1)										
Source: 9G10010-01 Prepared & Analyzed: 07/11/19										
GRO as Hexane	1780	28	ppmv		1860			4.72	30	
Duplicate (B9G1104-DUP2)										
Source: 9G10013-01 Prepared: 07/11/19 Analyzed: 07/16/19										
GRO as Hexane	<5.7	5.7	ppmv						30	

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333099
Date Received: 07/10/19
Date Reported: 07/19/19

Special Notes

- [1] = ** : Exceeds upper control limit.
- [2] = *** : Exceeds lower control limit.
- [3] = AA-C1 : Exceeds RPD limit.

A handwritten signature in black ink, appearing to read 'VA'.

Viorel Vasile
Operations Manager



AMERICAN ANALYTICALS CHAIN-OF-CUSTODY RECORD

9765 ETON AVE., CHATSWORTH, CA 91311
Tel: 818-998-5547 FAX: 818-998-7258

189M

Client: The Source Group, Inc. **Project Name / No.:** DFSP - Norwalk / 091-NDLA **Sampler's Name:** Glenn Androsko
Project Manager: Neil Irish **Site Address:** 15306 Norwalk Blvd **Sampler's Signature:** Glenn Androsko
Phone: 562-597-1056 **City:** Norwalk **P.O. No.:**
Fax: 569-597-1070 **State & Zip:** CA 90650 **Quote No.:**

TAT Turnaround Codes **

- ① = Same Day Rush
- ② = 24 Hour Rush
- ③ = 48 Hour Rush
- ④ = 72 Hour Rush
- ⑤ = 5 Day Rush
- X = 10 Working Days (Standard TAT)

ANALYSIS REQUESTED (Test Name)

Client I.D.	Date	Time	Sample Matrix	No. of Cont	Please enter the TAT Turnaround Codes ** below		Special Instructions
					Total VOCs Gas 8079	Total VOCs Hexane 8075	
Thermax Influent	7-10-19	0959	Air	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	VOC's reported as
Thermax Effluent	7-10-19	0953	Air	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	TPH and Hexane
							Detection limit of 75
							ppm for Hexane
							and 0.15 ppm for
							Benzene

PRIORITY
RUSH TO MS SILE
DATE 7/11/19
DATE

Relinquished by	Date	Time	Received by
Glenn Androsko	7-10-19	11:20	[Signature]
Glenn Androsko	7-10-19	13:05	[Signature]
Glenn Androsko	7-10-19		[Signature]

5333049 / 9510010

Note: By relinquishing samples to American Analyticals, client agrees to pay for the services requested on this chain of custody form and any additional client-requested analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 45 days following the submittal of the sample(s) to American Analyticals.



9765 Eton Avenue
Chatsworth
California 91311
Tel: (818) 998-5547
Fax: (818) 998-7258

August 14, 2019

Neil Irish

The Source Group, Inc. (SH)
1962 Freeman Ave.
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013
A5333114 / 9H05012**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 08/05/19 14:44 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile'.

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333114
Date Received: 08/05/19
Date Reported: 08/14/19

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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GRO in Vapor as Hexane

Thermox Influent	9H05012-01	Vapor	5	08/05/19 10:30	08/05/19 14:44
Thermox Effluent	9H05012-02	Vapor	5	08/05/19 10:23	08/05/19 14:44

VOCs BTEX/MTBE Vapor GC/MS

Thermox Influent	9H05012-01	Vapor	5	08/05/19 10:30	08/05/19 14:44
Thermox Effluent	9H05012-02	Vapor	5	08/05/19 10:23	08/05/19 14:44

VOCs Gasoline Range Organics Vapor

Thermox Influent	9H05012-01	Vapor	5	08/05/19 10:30	08/05/19 14:44
Thermox Effluent	9H05012-02	Vapor	5	08/05/19 10:23	08/05/19 14:44

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Matrix: Vapor
Dilution: 1
Method: VOCs BTEX/MTBE Vapor by GC/MS 8260M

AA Project No: A5333114
Date Received: 08/05/19
Date Reported: 08/14/19
Sampled: 08/05/19
Prepared: 08/06/19
Analyzed: 08/06/19

Thermox Influent
9H05012-01 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	21	ug/L	0.50	6.6	ppmv	0.16
Ethylbenzene	1.6	ug/L	0.50	0.37	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<2.0	ug/L	2.0	<0.55	ppmv	0.55
Toluene	2.9	ug/L	0.50	0.77	ppmv	0.13
o-Xylene	1.1	ug/L	0.50	0.25	ppmv	0.12
m,p-Xylenes	4.1	ug/L	1.0	0.94	ppmv	0.23

Surrogates	%REC	%REC Limits
4-Bromofluorobenzene	87.5 %	70-140
Dibromofluoromethane	101 %	70-140
Toluene-d8	93.9 %	70-140

Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Matrix: Vapor
Dilution: 0.5
Method: VOCs BTEX/MTBE Vapor by GC/MS 8260M

AA Project No: A5333114
Date Received: 08/05/19
Date Reported: 08/14/19
Sampled: 08/05/19
Prepared: 08/06/19
Analyzed: 08/06/19

Thermox Effluent
9H05012-02 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	97.9 %	70-140
Dibromofluoromethane	106 %	70-140
Toluene-d8	96.5 %	70-140

Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Matrix: Vapor
Dilution: 10
Method: Gasoline Range Organics in Vapor by GC/FID

AA Project No: A5333114
Date Received: 08/05/19
Date Reported: 08/14/19
Sampled: 08/05/19
Prepared: 08/07/19
Analyzed: 08/07/19

Thermox Influent
9H05012-01 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	11000	ug/L	20	2700	ppmv	4.9
Surrogates		%REC			%REC Limits	
a,a,a-Trifluorotoluene		110 %			70-130	

Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)

Project No: 04-NDLA-013

Project Name: DFSP Norwalk VES AQMD

Matrix: Vapor

Dilution: 1

Method: Gasoline Range Organics in Vapor by GC/FID

AA Project No: A5333114

Date Received: 08/05/19

Date Reported: 08/14/19

Sampled: 08/05/19

Prepared: 08/07/19

Analyzed: 08/07/19

Thermax Effluent

9H05012-02 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	20	ug/L	20	4.9	ppmv	4.9
<u>Surrogates</u>		<u>%REC</u>				<u>%REC Limits</u>
a,a,a-Trifluorotoluene		91.2 %				70-130

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Method: GRO in Vapor as Hexane

AA Project No: A5333114
Date Received: 08/05/19
Date Reported: 08/14/19
Units: ppmv

Date Sampled:	08/05/19	08/05/19	
Date Prepared:	08/07/19	08/07/19	
Date Analyzed:	08/07/19	08/07/19	
AA ID No:	9H05012-01	9H05012-02	
Client ID No:	Thermox Influent	Thermox Effluent	
Matrix:	Vapor	Vapor	
Dilution Factor:	10	1	MRL

GRO in Vapor as Hexane (EPA 8015M)

GRO as Hexane	2500	<5.7	5.7
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Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333114
Date Received: 08/05/19
Date Reported: 08/14/19

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control										
<i>Batch B9H0615 - *** DEFAULT PREP ***</i>										
Blank (B9H0615-BLK1)				Prepared & Analyzed: 08/06/19						
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	47.6		ug/L	50		95.3	70-140			
<i>Surrogate: Dibromofluoromethane</i>	50.7		ug/L	50		101	70-140			
<i>Surrogate: Toluene-d8</i>	46.6		ug/L	50		93.1	70-140			
LCS (B9H0615-BS1)				Prepared & Analyzed: 08/06/19						
Benzene	25.1	0.50	ug/L	20		125	75-125			
Ethylbenzene	18.9	0.50	ug/L	20		94.6	75-125			
Methyl-tert-Butyl Ether (MTBE)	43.9	2.0	ug/L	40		110	75-125			
Toluene	19.0	0.50	ug/L	20		95.2	75-125			
o-Xylene	18.8	0.50	ug/L	20		94.1	75-125			
m,p-Xylenes	37.9	1.0	ug/L	40		94.8	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	47.5		ug/L	50		95.1	70-140			
<i>Surrogate: Dibromofluoromethane</i>	47.2		ug/L	50		94.5	70-140			
<i>Surrogate: Toluene-d8</i>	42.6		ug/L	50		85.2	70-140			
LCS Dup (B9H0615-BSD1)				Prepared & Analyzed: 08/06/19						
Benzene	26.9	0.50	ug/L	20		135	75-125	7.11	30	**
Ethylbenzene	20.2	0.50	ug/L	20		101	75-125	6.30	30	
Methyl-tert-Butyl Ether (MTBE)	47.3	2.0	ug/L	40		118	75-125	7.48	30	
Toluene	20.2	0.50	ug/L	20		101	75-125	6.01	30	
o-Xylene	19.6	0.50	ug/L	20		97.8	75-125	3.91	30	
m,p-Xylenes	39.8	1.0	ug/L	40		99.5	75-125	4.89	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	50.5		ug/L	50		101	70-140			
<i>Surrogate: Dibromofluoromethane</i>	53.8		ug/L	50		108	70-140			
<i>Surrogate: Toluene-d8</i>	47.3		ug/L	50		94.7	70-140			
Duplicate (B9H0615-DUP1)				Source: 9H05012-01 Prepared & Analyzed: 08/06/19						

Viorel Vasile
 Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333114
Date Received: 08/05/19
Date Reported: 08/14/19

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control										
<i>Batch B9H0615 - *** DEFAULT PREP ***</i>										
Duplicate (B9H0615-DUP1) Continued Source: 9H05012-01 Prepared & Analyzed: 08/06/19										
Benzene	17.6	0.50	ug/L		20.8			16.6	30	
Ethylbenzene	1.78	0.50	ug/L		1.65			7.58	30	
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L		<2.0				30	
Toluene	3.06	0.50	ug/L		2.93			4.34	30	
o-Xylene	1.27	0.50	ug/L		1.09			15.3	30	
m,p-Xylenes	4.47	1.0	ug/L		4.07			9.37	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	41.5		ug/L	50		82.9	70-140			
<i>Surrogate: Dibromofluoromethane</i>	45.6		ug/L	50		91.1	70-140			
<i>Surrogate: Toluene-d8</i>	45.0		ug/L	50		89.9	70-140			
Gasoline Range Organics in Vapor by GC/FID - Quality Control										
<i>Batch B9H0713 - *** DEFAULT PREP ***</i>										
Blank (B9H0713-BLK1) Prepared & Analyzed: 08/07/19										
Gasoline Range Organics (GRO)	<20	20	ug/L							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	43.8		ug/L	50		87.7	70-130			
LCS (B9H0713-BS1) Prepared & Analyzed: 08/07/19										
Gasoline Range Organics (GRO)	421	20	ug/L	500		84.2	75-125			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	51.0		ug/L	50		102	70-130			
LCS Dup (B9H0713-BSD1) Prepared & Analyzed: 08/07/19										
Gasoline Range Organics (GRO)	418	20	ug/L	500		83.6	75-125	0.632	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	51.5		ug/L	50		103	70-130			
Duplicate (B9H0713-DUP1) Source: 9H05012-01 Prepared & Analyzed: 08/07/19										
Gasoline Range Organics (GRO)	9070	200	ug/L		11200			21.4	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	50.6		ug/L	50		101	70-130			
GRO in Vapor as Hexane - Quality Control										
<i>Batch B9H0713 - *** DEFAULT PREP ***</i>										
Blank (B9H0713-BLK1) Prepared & Analyzed: 08/07/19										
GRO as Hexane	<5.7	5.7	ppmv							
Duplicate (B9H0713-DUP1) Source: 9H05012-01 Prepared & Analyzed: 08/07/19										

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333114
Date Received: 08/05/19
Date Reported: 08/14/19

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
GRO in Vapor as Hexane - Quality Control										
<i>Batch B9H0713 - *** DEFAULT PREP ***</i>										
Duplicate (B9H0713-DUP1) Continued Source: 9H05012-01 Prepared & Analyzed: 08/07/19										
GRO as Hexane	1970	57	ppmv		2450			21.7	30	

Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333114
Date Received: 08/05/19
Date Reported: 08/14/19

Special Notes

[1] = ** : Exceeds upper control limit.

A handwritten signature in black ink, appearing to read 'V. Vasile'.

Viorel Vasile
Operations Manager



AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

9765 ETON AVE., CHATSWORTH, CA 91311
Tel: 818-998-5547 FAX: 818-998-7258

18652

Page 1 of 1

Client: The Source Group, Inc. Project Name / No.: DFSP - Norwalk / 091-NDLA Sampler's Name: Glenn Androska
 Project Manager: Neil Irish Site Address: 15306 Norwalk Blvd Sampler's Signature: *Glenn Androska*
 Phone: 562-597-1055 City: Norwalk P.O. No.:
 Fax: 569-597-1070 State & Zip: CA 90650 Quote No.:

TAT Turnaround Codes **

- ① = Same Day Rush
- ② = 24 Hour Rush
- ③ = 48 Hour Rush
- ④ = 72 Hour Rush
- ⑤ = 5 Day Rush
- X = 10 Working Days (Standard TAT)

ANALYSIS REQUESTED (Test Name)

Client I.D.	Date	Time	Sample Matrix	No. of Cont	Please enter the TAT Turnaround Codes ** below			Special Instructions
					Total VOCs Gas 8013	Total VOCs Hexane 8015	BTEX/MTBE 8260B	
Thermox Influent	8-5-19	10:50	Air	1	✓	✓	✓	VOC's reported as
Thermox Effluent	"	10:25	Air	1	✓	✓	✓	TPH and Hexane
								Detection limit of 75
								ppm for Hexane
								and 0.15 ppm for
								Benzene

8/5/19 10:50 AM
 ANALYTICS
 CHATSWORTH
 CA 91311

19 AUG 5 2:44 PM

Relinquished by	Date	Time	Received by	Date	Time
<i>Glenn Androska</i>	8-5-19	11:50	<i>[Signature]</i>		
<i>[Signature]</i>	8-5-19	14:44	<i>[Signature]</i>		
<i>[Signature]</i>			<i>[Signature]</i>		

AS33114 / 7H05012

By relinquishing samples to American Analytics, client agrees to pay for the services requested on this chain of custody form and any additional client-requested analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 45 days following the submittal of the sample(s) to American Analytics.



9765 Eton Avenue
Chatsworth
California 91311
Tel: (818) 998-5547
Fax: (818) 998-7258

September 27, 2019

Neil Irish
The Source Group, Inc. (SH)
1962 Freeman Ave.
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013
A5333130 / 9I09020**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 09/09/19 15:50 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile'.

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333130
Date Received: 09/09/19
Date Reported: 09/27/19

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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GRO in Vapor as Hexane

Thermox Influent	9I09020-01	Vapor	5	09/09/19 08:10	09/09/19 15:50
Thermox Effluent	9I09020-02	Vapor	5	09/09/19 08:01	09/09/19 15:50

VOCs BTEX/MTBE Vapor GC/MS

Thermox Influent	9I09020-01	Vapor	5	09/09/19 08:10	09/09/19 15:50
Thermox Effluent	9I09020-02	Vapor	5	09/09/19 08:01	09/09/19 15:50

VOCs Gasoline Range Organics Vapor

Thermox Influent	9I09020-01	Vapor	5	09/09/19 08:10	09/09/19 15:50
Thermox Effluent	9I09020-02	Vapor	5	09/09/19 08:01	09/09/19 15:50

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Matrix: Vapor
Dilution: 1
Method: VOCs BTEX/MTBE Vapor by GC/MS 8260M

AA Project No: A5333130
Date Received: 09/09/19
Date Reported: 09/27/19
Sampled: 09/09/19
Prepared: 09/11/19
Analyzed: 09/11/19

Thermox Influent
9109020-01 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	16	ug/L	0.50	5.0	ppmv	0.16
Ethylbenzene	4.4	ug/L	0.50	1.0	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<2.0	ug/L	2.0	<0.55	ppmv	0.55
Toluene	2.7	ug/L	0.50	0.72	ppmv	0.13
o-Xylene	1.2	ug/L	0.50	0.28	ppmv	0.12
m,p-Xylenes	6.9	ug/L	1.0	1.6	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	93.3 %	70-140
Dibromofluoromethane	94.3 %	70-140
Toluene-d8	90.1 %	70-140

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Matrix: Vapor
Dilution: 0.5
Method: VOCs BTEX/MTBE Vapor by GC/MS 8260M

AA Project No: A5333130
Date Received: 09/09/19
Date Reported: 09/27/19
Sampled: 09/09/19
Prepared: 09/11/19
Analyzed: 09/11/19

Thermax Effluent
9109020-02 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	105 %	70-140
Dibromofluoromethane	101 %	70-140
Toluene-d8	96.5 %	70-140

Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Matrix: Vapor
Dilution: 10
Method: Gasoline Range Organics in Vapor by GC/FID

AA Project No: A5333130
Date Received: 09/09/19
Date Reported: 09/27/19
Sampled: 09/09/19
Prepared: 09/10/19
Analyzed: 09/10/19

Thermox Influent
9109020-01 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	9600	ug/L	20	2300	ppmv	4.9
Surrogates		%REC			%REC Limits	
a,a,a-Trifluorotoluene		107 %			70-130	

Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Matrix: Vapor
Dilution: 1
Method: Gasoline Range Organics in Vapor by GC/FID

AA Project No: A5333130
Date Received: 09/09/19
Date Reported: 09/27/19
Sampled: 09/09/19
Prepared: 09/10/19
Analyzed: 09/10/19

Thermax Effluent
9109020-02 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<u>Surrogates</u>		<u>%REC</u>			<u>%REC Limits</u>	
a,a,a-Trifluorotoluene		94.5 %			70-130	

Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD
Method: GRO in Vapor as Hexane

AA Project No: A5333130
Date Received: 09/09/19
Date Reported: 09/27/19
Units: ppmv

Date Sampled:	09/09/19	09/09/19	
Date Prepared:	09/10/19	09/10/19	
Date Analyzed:	09/10/19	09/10/19	
AA ID No:	9I09020-01	9I09020-02	
Client ID No:	Thermox Influent	Thermox Effluent	
Matrix:	Vapor	Vapor	
Dilution Factor:	10	1	MRL

GRO in Vapor as Hexane (EPA 8015M)

GRO as Hexane	2100	<5.7	5.7
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Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333130
Date Received: 09/09/19
Date Reported: 09/27/19

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control										
<i>Batch B91129 - *** DEFAULT PREP ***</i>										
Blank (B91129-BLK1)					Prepared & Analyzed: 09/11/19					
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>52.4</i>		<i>ug/L</i>	<i>50</i>		<i>105</i>	<i>70-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>49.0</i>		<i>ug/L</i>	<i>50</i>		<i>98.0</i>	<i>70-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>48.5</i>		<i>ug/L</i>	<i>50</i>		<i>97.0</i>	<i>70-140</i>			
LCS (B91129-BS1)					Prepared & Analyzed: 09/11/19					
Benzene	20.1	0.50	ug/L	20		101	75-125			
Ethylbenzene	21.2	0.50	ug/L	20		106	75-125			
Methyl-tert-Butyl Ether (MTBE)	40.1	2.0	ug/L	40		100	75-125			
Toluene	21.2	0.50	ug/L	20		106	75-125			
o-Xylene	21.0	0.50	ug/L	20		105	75-125			
m,p-Xylenes	43.0	1.0	ug/L	40		108	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>48.0</i>		<i>ug/L</i>	<i>50</i>		<i>95.9</i>	<i>70-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>45.9</i>		<i>ug/L</i>	<i>50</i>		<i>91.9</i>	<i>70-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>48.3</i>		<i>ug/L</i>	<i>50</i>		<i>96.5</i>	<i>70-140</i>			
LCS Dup (B91129-BS1)					Prepared & Analyzed: 09/11/19					
Benzene	19.5	0.50	ug/L	20		97.4	75-125	3.28	30	
Ethylbenzene	20.7	0.50	ug/L	20		103	75-125	2.67	30	
Methyl-tert-Butyl Ether (MTBE)	39.2	2.0	ug/L	40		98.0	75-125	2.37	30	
Toluene	20.3	0.50	ug/L	20		102	75-125	4.24	30	
o-Xylene	20.8	0.50	ug/L	20		104	75-125	0.911	30	
m,p-Xylenes	41.4	1.0	ug/L	40		103	75-125	3.86	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>48.7</i>		<i>ug/L</i>	<i>50</i>		<i>97.3</i>	<i>70-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>45.1</i>		<i>ug/L</i>	<i>50</i>		<i>90.2</i>	<i>70-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>48.7</i>		<i>ug/L</i>	<i>50</i>		<i>97.4</i>	<i>70-140</i>			
Duplicate (B91129-DUP1)					Source: 9109020-02 Prepared & Analyzed: 09/11/19					

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333130
Date Received: 09/09/19
Date Reported: 09/27/19

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control										
<i>Batch B911129 - *** DEFAULT PREP ***</i>										
Duplicate (B911129-DUP1) Continued Source: 9109020-02 Prepared & Analyzed: 09/11/19										
Benzene	<0.25	0.25	ug/L		<0.25				30	
Ethylbenzene	<0.25	0.25	ug/L		<0.25				30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L		<1.0				30	
Toluene	<0.25	0.25	ug/L		<0.25				30	
o-Xylene	<0.25	0.25	ug/L		<0.25				30	
m,p-Xylenes	<0.50	0.50	ug/L		<0.50				30	
<i>Surrogate: 4-Bromofluorobenzene</i>	51.8		ug/L	50		104	70-140			
<i>Surrogate: Dibromofluoromethane</i>	49.6		ug/L	50		99.1	70-140			
<i>Surrogate: Toluene-d8</i>	48.7		ug/L	50		97.4	70-140			
Gasoline Range Organics in Vapor by GC/FID - Quality Control										
<i>Batch B911022 - *** DEFAULT PREP ***</i>										
Blank (B911022-BLK1) Prepared & Analyzed: 09/10/19										
Gasoline Range Organics (GRO)	<20	20	ug/L							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	44.1		ug/L	50		88.3	70-130			
LCS (B911022-BS1) Prepared & Analyzed: 09/10/19										
Gasoline Range Organics (GRO)	402	20	ug/L	500		80.4	75-125			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	47.9		ug/L	50		95.9	70-130			
LCS Dup (B911022-BSD1) Prepared & Analyzed: 09/10/19										
Gasoline Range Organics (GRO)	425	20	ug/L	500		85.0	75-125	5.58	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	53.5		ug/L	50		107	70-130			
Duplicate (B911022-DUP1) Source: 9109020-02 Prepared & Analyzed: 09/10/19										
Gasoline Range Organics (GRO)	<20	20	ug/L		<20				30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	48.6		ug/L	50		97.1	70-130			
GRO in Vapor as Hexane - Quality Control										
<i>Batch B911022 - *** DEFAULT PREP ***</i>										
Blank (B911022-BLK1) Prepared & Analyzed: 09/10/19										
GRO as Hexane	<5.7	5.7	ppmv							
Duplicate (B911022-DUP1) Source: 9109020-02 Prepared & Analyzed: 09/10/19										

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333130
Date Received: 09/09/19
Date Reported: 09/27/19

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
GRO in Vapor as Hexane - Quality Control										
<i>Batch B911022 - *** DEFAULT PREP ***</i>										
Duplicate (B911022-DUP1) Continued Source: 9109020-02 Prepared & Analyzed: 09/10/19										
GRO as Hexane	<5.7	5.7	ppmv		<5.7				30	

Viorel Vasile
 Operations Manager



LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-NDLA-013
Project Name: DFSP Norwalk VES AQMD

AA Project No: A5333130
Date Received: 09/09/19
Date Reported: 09/27/19

Special Notes

A handwritten signature in black ink, appearing to be 'VA' or similar, located below the 'Special Notes' section.

Viorel Vasile
Operations Manager



AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

9765 ETON AVE., CHATSWORTH, CA 91311

Tel: 818-998-5547 FAX: 818-998-7258

AA COC# 18850

Page 1 of 1

Client: The Source Group, Inc. Project Name / No.: DFSP - Norwalk / 091-NDLA Sampler's Name: Glenn Anderson

Project Manager: Neil Irish Site Address: 15306 Norwalk Blvd Sampler's Signature: Glenn Anderson

Phone: 562-597-1055 City: Norwalk P.O. No.: State & Zip: CA 90650 Quote No.:

TAT Turnaround Codes **

- ① = Same Day Rush
- ② = 24 Hour Rush
- ③ = 48 Hour Rush
- ④ = 72 Hour Rush
- ⑤ = 5 Day Rush
- X = 10 Working Days (Standard TAT)

ANALYSIS REQUESTED (Test Name)

Client I.D.	Date	Time	Sample Matrix	No. of Cont	Please enter the TAT Turnaround Codes ** below			Special Instructions
					Total VOCs Gas 8015	Total VOCs Hexane 8015	BTEX/MTBE 8260B	
9109020-01	9-9-19	0810	Air	1	✓	✓		VOC's reported as
9109020-02	"	0801	Air	1	✓	✓		TPH and Hexane
								Detection limit of 75
								ppm for Hexane
								and 0.15 ppm for
								Benzene

PRIORITY

Rush Mrs. SH Glenn Anderson
 Date 9/9/19 16:40
 Sign Glenn Anderson

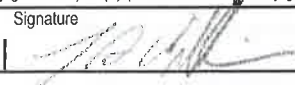

A 983130 / 9109020

Relinquished by	Date	Time	Received by
<u>Glenn Anderson</u>	9-9-19	17:00	<u>Glenn Anderson</u>
Relinquished by	Date	Time	Received by
<u>Glenn Anderson</u>	9-9-19	15:00	<u>Glenn Anderson</u>
Relinquished by	Date	Time	Received by

Note: By relinquishing samples to American Analytics, client agrees to pay for the services requested on this chain of custody form and any additional client-requested analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 45 days following the submittal of the sample(s) to American Analytics.

APPENDIX B

LNAPL HAZARDOUS WASTE MANIFEST

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number C A 8 9 7 1 5 2 4 3 6 0	2. Page 1 of 1	3. Emergency Response Phone (310) 241-2834	4. Manifest Tracking Number 012773222 FLE		
5. Generator's Name and Mailing Address Defense Logistics Agency - Energy Attn: Todd Williams 3171 North Gaffey St. San Pedro, CA 90731				Generator's Site Address (if different than mailing address) DDEF NORWALK 15306 Norwalk Blvd. Norwalk, CA 90650			
Generator's Phone: (310) 241-2834							
6. Transporter 1 Company Name BELSHIRE				U.S. EPA ID Number CAR000183913			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address DeMenno Kerdoon 2000 N. Alameda St. Compton, CA 90222				U.S. EPA ID Number CAT080013352			
Facility's Phone: (310) 537-7100							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
X	1. UN1993, Flammable liquid, n.o.s., 3, PG II (Contains jet fuel)	01	DM	200	G	133	
	2.						
	3.						
	4.						
14. Special Handling Instructions and Additional Information ERG#: 120 - Jet Fuel Apax Contact - Glenn Androsko (714) 608-1089		WEAR ALL APPROPRIATE PROTECTIVE CLOTHING		BESI: 309357			
		PROFILE # 445472					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offoror's Printed/Typed Name Todd E. Williams				Signature 		Month Day Year 7 31 19	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name CHERDO GARCIA				Signature 		Month Day Year 7 31 19	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number: _____							
18b. Alternate Facility (or Generator)				U.S. EPA ID Number			
Facility's Phone:							
18c. Signature of Alternate Facility (or Generator)						Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1.		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name				Signature		Month Day Year	

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

NO. 749529

NON-HAZARDOUS WASTE DATA FORM

BESI # 309357

GENERATOR

Generator's Name and Mailing Address: **DEFENSE LOGISTICS AGENCY - ENERGY**
 ATTN: TODD WILLIAMS
 3171 NORTH GAFFEY ST.
 SAN PEDRO, CA 90731

Generator's Site Address (if different than mailing address):
 DFSP NORWALK
 15306 NORWALK BLVD.
 NORWALK, CA 90650

Generator's Phone: 310-241-2834

Container type removed from site: Drums Vacuum Truck Roll-off Truck Dump Truck Other _____

Container type transported to receiving facility: Drums Vacuum Truck Roll-off Truck Dump Truck Other _____

Quantity: 01

Quantity: 1 Volume: 50 LBS


WASTE DESCRIPTION: NON-HAZARDOUS SOLID

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. SOAKEASE SOCKS		100%	3. _____		
2. _____			4. _____		

GENERATING PROCESS: Soakease Socks with Jet Fuel

Waste Profile: 070128043-13716 PROPERTIES: pH _____ SOLID LIQUID SLUDGE SLURRY OTHER _____

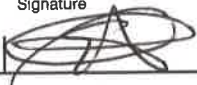
HANDLING INSTRUCTIONS: Apex Contact: Glenn Androsko 714-608-1089

Generator Printed/Typed Name: Todd E.H. Williams Signature:  Month: 7 Day: 31 Year: 17

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE Phone#: 949-480-5200

Transporter 1 Printed/Typed Name: EDUARDO GARCIA Signature:  Month: 7 Day: 31 Year: 17

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name: _____ Phone#: _____


Transporter 2 Printed/Typed Name: _____ Signature: _____ Month: _____ Day: _____ Year: _____

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address: U.S. ECOLOGY, NEVADA OPERATIONS
 HIGHWAY 95, 11 MILES S. OF BEATTY
 BEATTY, NV 89003

Phone#: 775-553-2203

Printed/Typed Name: Kenny Harrington Signature:  Month: 8 Day: 17 Year: 19

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

NO. 749529

NON-HAZARDOUS WASTE DATA FORM

BESI # 309357

Generator's Name and Mailing Address DEFENSE LOGISTICS AGENCY - ENERGY ATTN: TODD WILLIAMS 3171 NORTH GAFFEY ST. SAN PEDRO, CA 90731	Generator's Site Address (if different than mailing address) DFSP NORWALK 15308 NORWALK BLVD. NORWALK, CA 90650
Generator's Phone: 310-241-2834	

GENERATOR	Container type removed from site: <input checked="" type="checkbox"/> Drums <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____	Container type transported to receiving facility: <input type="checkbox"/> Drums <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____																		
	Quantity <u>01</u>	Quantity _____ Volume _____																		
	WASTE DESCRIPTION <u>NON-HAZARDOUS SOLID</u>	GENERATING PROCESS <u>Soakease Socks with Jet Fuel</u>																		
	<table border="1"> <thead> <tr> <th>COMPONENTS OF WASTE</th> <th>PPM</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1. <u>SOAKEASE SOCKS</u></td> <td></td> <td><u>100%</u></td> </tr> <tr> <td>2. _____</td> <td></td> <td></td> </tr> </tbody> </table>	COMPONENTS OF WASTE	PPM	%	1. <u>SOAKEASE SOCKS</u>		<u>100%</u>	2. _____			<table border="1"> <thead> <tr> <th>COMPONENTS OF WASTE</th> <th>PPM</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>3. _____</td> <td></td> <td></td> </tr> <tr> <td>4. _____</td> <td></td> <td></td> </tr> </tbody> </table>	COMPONENTS OF WASTE	PPM	%	3. _____			4. _____		
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1. <u>SOAKEASE SOCKS</u>		<u>100%</u>																		
2. _____																				
COMPONENTS OF WASTE	PPM	%																		
3. _____																				
4. _____																				
Waste Profile <u>070128043-13716</u> PROPERTIES: pH _____ <input type="checkbox"/> SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> SLUDGE <input type="checkbox"/> SLURRY <input type="checkbox"/> OTHER _____																				

Generator Printed/Typed Name <u>Todd E. Williams</u>	Signature 	Month Day Year <u>7</u> <u>31</u> <u>17</u>
---	---------------	--

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER	Transporter 1 Company Name <u>BELSHIRE</u>	Phone# <u>949-480-5200</u>	
	Transporter 1 Printed/Typed Name <u>EDUARDO GARCIA</u>	Signature 	Month Day Year <u>7</u> <u>31</u> <u>17</u>
	Transporter Acknowledgment of Receipt of Materials		
	Transporter 2 Company Name _____	Phone# _____	
	Transporter 2 Printed/Typed Name _____	Signature _____	Month Day Year _____

RECEIVING FACILITY	Designated Facility Name and Site Address U.S. ECOLOGY, NEVADA OPERATIONS HIGHWAY 95, 11 MILES S. OF BEATTY BEATTY, NV 89003	Phone# <u>775-553-2203</u>	
	Printed/Typed Name _____	Signature _____	Month Day Year _____
	Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.		