County of Los Angeles
CHIEF EXECUTIVE OFFICE
Kenneth Hahn Hall of Administration
500 West Temple Street, Room 713, Los Angeles, California 90012
(213) 974-1101
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SACHI A. HAMAI
Interim Chief Executive Officer

January 15, 2015

Weixing Tong
Senior Engineering Geologist
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Dear Mr. Tong:

UNDERGROUND STORAGE TANKS PROGRAM
SEMI-ANNUAL GROUNDWATER MONITORING AND REMEDIATION REPORT
MARINA DEL REY SHERIFF'S STATION
13851 FIJI WAY, MARINA DEL REY (FILE NO. R-09811) (PRIORITY D-1 SITE)

Attached for your review is the Semi-Annual Groundwater Monitoring, Remediation Progress Report for the Marina del Rey Sheriff's Station at 13851 Fiji Way, Marina del Rey, California.

If you have any questions, please contact me at (213) 974-1360 or Al Tizani at (213) 974-2629.

Sincerely,

Bradford M. Bolger
Senior Manager, CEO
Facilities and Asset Management

BMB:TJ:AT:rp

c: John Bennett, SES, Inc.
Dave Bjostad, CRWQCB
Lester Miyoshi, Sheriff Department

Attachment

global environmental solutions

SEMI-ANNUAL GROUNDWATER MONITORING AND REMEDIATION PROGRESS REPORT

Los Angeles County Sheriff Station
13851 Fiji Way, Marina Del Rey, California

January 2015

Semi-Annual Groundwater Monitoring and Remediation Progress Report

Prepared for:

County of Los Angeles
Chief Executive Office
754 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

This document has been prepared by SLR International Corp. The material and data in this report were prepared under the supervision and direction of the undersigned.

Expires: August 31, 2016

John Bennett
Project Director

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1. INTRODUCTION

SLR International Corporation (SLR) is pleased to present this semi-annual monitoring report summarizing groundwater monitoring and remedial activities conducted at the Los Angeles County Sheriff Station (Site) located at 13851 Fiji Way, Marina del Rey, California (Regional Water Quality Control Board, Los Angeles Region [LARWQCB] File No. R-09811). References cited herein are listed in Appendix A.

1.1 SITE DESCRIPTION

The Site is a Los Angeles County Sheriff Station, located at 13851 Fiji Way, Marina del Rey, Los Angeles County, California (Figure 1). The onsite facilities are used as a base of operations for six patrol boats in the harbor waters. The subject property is situated on an east to west trending piece of land separating the Marina del Rey Harbor from Ballona Creek to the south. The facility is located within Township 2 South, Range 15 West, Section 13, as shown on the Venice 7.5- minute quadrangle map (U.S. Geological Survey [USGS], 1964). The Site has an average surface elevation of approximately 15 feet above mean sea level (msl). The topography slopes gently northward towards the harbor.

2. BACKGROUND

In December 1998, four underground fuel storage tanks (USTs) were removed from the Site. The tanks were located beneath the driveway on the west side of the Sheriff Station near the front of the building (Figure 2). The former tanks were described as three 1,500-gallon steel gasoline USTs and one 1,000-gallon steel diesel UST. Associated piping included a fuel line that extended beneath the utility shed located next to the Sheriff building and the Coast Guard building, and then down to a dock and dispenser. Fuel pipelines extending from the tanks to the boat fueling pump on the dock were abandoned and pipes under the dock and vent lines were removed. The pipes under the building were flushed and capped and the dispenser pump on the dock was removed (CKY, 1999). The excavation was backfilled on December 8, 1998 with 100 tons of pea gravel and 10 tons of aggregate base, and the driveway surface restored with reinforced concrete.

Soil samples were not collected from beneath the tanks because shallow groundwater was encountered and the soil was visually observed to be contaminated. However, four soil samples were collected from the soil stockpile generated during the tank excavation and were analyzed for volatile organic compounds (VOCs), extractable fuel hydrocarbons (EFH) and total petroleum hydrocarbons as gasoline (TPH-g). EFH were detected at a maximum concentration of 203 milligrams per kilogram (mg/kg) and TPH-g was detected at a maximum concentration of 2,400 mg/kg. Benzene was not detected above the laboratory reporting limit of 0.05 mg/kg in the stockpile samples. The soil stockpile was removed from the Site and transported to an offsite recycling facility (Shaw, 2003).

Shaw Environmental and Infrastructure (Shaw) conducted a series of environmental investigations at the Site between December 2001 and September 2002. These investigations included a soil gas survey, the advancement of soil borings, and the installation of three groundwater monitoring wells. Results of these investigations indicated that soil vapor, soil, and groundwater were impacted by petroleum hydrocarbons and VOCs. Investigation results were issued by Shaw in a report dated March 10, 2003 (Shaw, 2003).

Shaw collected nine soil vapor samples (SG-1 through SG-9) at depths ranging from three to five feet below ground surface (bgs) and advanced 12 soil borings to total depths ranging from seven to 20 feet bgs (SB-1 through SB-3, SB-24 through SB-29 and MW-1 through MW-3) (Figure 2). The results of this investigation indicated that the benzene and ethylbenzene concentrations exceeded US EPA Preliminary Remediation Goals (PRGs) for benzene in the samples collected from SB-1, SB-2, SB-3, MW-1, and MW-3 and ethylbenzene from MW-3. Groundwater samples collected from MW-1 and MW-3 contained benzene at concentrations of 393 micrograms per liter (µg/L) and 4,050 µg/L, respectively. Methyl tertiary butyl ether (MTBE) was detected in SB-24, SB-27, MW-1, MW-2, and MW-3 at concentrations of 92.5 µg/L, 17 µg/L, 1,310 µg/L, 1,990 µg/L, and 3,620 µg/L, respectively. These concentrations exceed the MCLs allowable for drinking water for benzene (1.0 µg/L) and MTBE (13 µg/L). Based on the results of these investigations, Shaw recommended additional assessment to delineate the extent of impacted soil and groundwater (Shaw, 2003).

On November 12, 2003, LARWQCB issued a letter requiring the County to perform additional site assessment and remedial activities. LARWQCB subsequently issued a letter to the County,

dated December 12, 2007, requiring submittal of a workplan. Leighton Consulting prepared a workplan on behalf of the County and submitted it to the LARWQCB on May 15, 2008. The LARWQCB approved the workplan in a letter to the County, dated July 14, 2008.

On September 18, 19, and 26, 2008, Leighton Consulting advanced six 25-foot deep soil borings (MW-4 through MW-8 and AS/SVE-1) utilizing a hollow stem auger. The borings were converted into 2-inch diameter groundwater monitoring wells and one air sparge/vapor extraction well. The sparge point was composed of 1-inch diameter PVC pipe extending to a depth of approximately 5 feet bgs. Three soil samples were collected from each boring at depths of 3, 7, and 12 feet bgs, for a total of 18 soil samples. Groundwater samples were collected from MW-1 through MW-8 on October 8, 2008 after the wells had been properly purged. Groundwater beneath the Site on October 8, 2008 ranged from 3.16 feet to 8.86 feet below the top of well casings (6.84 to 9.28 feet above msl) with a south-southwest groundwater flow direction (Table 1). The results of the 2008 investigation were reported by Leighton Consulting in the Site Assessment and Groundwater Monitoring Report, dated October 2008.

On December 1, 2009, Leighton Consulting personnel installed in-situ submerged oxygen curtain (iSOC®) diffusers in wells MW-7 and MW-8. Groundwater samples were collected on December 1, 2009 from groundwater monitoring wells MW-1 through MW-8 prior to the iSOC® installation to assess background concentrations and natural attenuation parameters (Table 5). On March 19, 2010, Leighton Consulting personnel installed an iSOC® diffuser in well MW-2. On June 11, 2010, iSOC® diffusers were installed in wells MW-1 and MW-3. The components of the iSOC® at each well included a 60-cubic-foot capacity cylinder of industrial-grade oxygen with a flow controller, polyurethane tubing and a diffuser. Additional samples from wells MW-1 and MW-3 were also collected on August 5, 2010 and analyzed for the same parameters as the quarterly samples, to monitor the progress of the onsite remediation. Laboratory results of these samples are included in Tables 1 and 5.

On October 21, 2010, the oxygen cylinders, flow controllers, polyurethane tubing, and diffusers were removed from wells MW-1, MW-2, MW-3, MW-7 and MW-8, in preparation of the fourth quarter groundwater monitoring. A summary of the iSOC® remediation is provided in Table 6.

On March 8, 2011, the LARWQCB requested in a letter that a Remedial Action Plan (RAP) addendum and a workplan for soil and soil vapor confirmation sampling be submitted by April 15, 2011. The LARWQCB also requested that a Waste Discharge Requirements (WDR) permit be obtained prior to in situ chemical injection (ISCO) at the site. The letter also stated that the current semi-annual groundwater monitoring program shall continue for a minimum of one year after it appears that groundwater remediation has reduced concentrations in groundwater. Leighton Consulting submitted the workplan and RAP addendum on April 15, 2011. DTSC approved the RAP addendum in a letter dated May 17, 2012. Pursuant to the RAP, SLR installed three injection wells at the Site in June 2012 and completed a treatability test for the injection of persulfate in 2013.

Consistent with the RAP, and based on treatability testing results, SLR injected Klozur™ (persulfate) in three phases between May 21 to July 3, 2013, February 25 to April 16, 2014, and August 28 to November 4, 2014, to remediate residual fuel-related constituents in groundwater at the site. These injections were conducted under a WDR permit approved by the LARWQCB (Order No. R4-2007-0019).

Groundwater monitoring was conducted during this reporting period , results of which are contained in this report. The WDR permit entails monitoring and reporting requirements that are separate and in addition to the existing Leaking Underground Storage Tank (LUST) program related requirements. LUST related and WDR related groundwater monitoring was conducted on October 8, 2014.

Monitoring results indicate that contaminant concentrations have generally decreased since beginning remediation. The County has injected the entire mass of Klozur^{TM} that was planned, based on the results of the treatability study. Additional injections are not anticipated at this time. Groundwater monitoring will be conducted subsequently for evaluation purposes, results of which will be contained in the next report.

3. FIELD SERVICES

3.1 GROUNDWATER ELEVATION MEASUREMENTS

On October 8, 2014, Blaine Tech Services, Inc., under subcontract to SLR, measured the depth to groundwater in groundwater monitoring wells MW-1 through MW-8 prior to purging and sampling. Petroleum hydrocarbon product was not observed in the eight wells.

3.2 GROUNDWATER SAMPLING

On October 8, 2014, Blaine Tech purged approximately three casing volumes from each well. Groundwater parameters including pH, conductivity, turbidity, temperature, dissolved oxygen and oxidation-reduction potential were measured and recorded during purging operations. Groundwater samples were collected from the monitoring wells using dedicated disposable polyethylene bailers and transferred the samples to laboratory-supplied bottles with appropriate preservative. Purge records are included in Appendix B.

Groundwater samples were placed in an ice cooled chest and delivered with a completed Chain of Custody form to Calscience Environmental Laboratories, Inc. (Calscience) in Garden Grove, California for chemical analysis. Calscience is a State of California certified laboratory. Purged groundwater and equipment decontamination water was stored in DOT-approved 55-gallon drums, pending transportation and disposal.

3.3 LABORATORY ANALYSIS

Groundwater samples collected from all wells on October 8, 2014 were analyzed for the following analytes:

- Volatile fuel hydrocarbons (VFH) by EPA method 8015.
- Benzene, toluene, ethylbenzene, xylenes (collectively BTEX), MTBE, ethyl tert-butyl ether (ETBE), di-isopropyl ether (DIPE), tert-amyl methyl ether (TAME), and tert-butyl alcohol (TBA) by EPA Method 8260B.

In addition, to comply with WDR monitoring and reporting requirements, samples from all wells except MW-3 and MW-6 (which are not subject to WDR related monitoring requirements), were analyzed for the following.

- Alkalinity (EPA SM2320)
- Carbon Dioxide (SM4500)
- Formaldehyde (ASTM D6303)
- Nitrate, nitrite, bromide, sulfate, and chloride (EPA 300.0)
- Iron, manganese, sodium, boron, arsenic (EPA 6010)
- Iron (II) (SM3500)

- Total organic carbon (SM5310)
- Total dissolved solids (SM2540)
- Methane (RSK 175)
- Total and hexavalent chromium by EPA 6010 and 7199, respectively.

Copies of the Chain of Custody records and complete analytical reports are presented in Appendix C.

4. FINDINGS

4.1 DIRECTION OF GROUNDWATER FLOW AND HYDRAULIC GRADIENT

A groundwater elevation contour map from the measurements recorded on October 8, 2014 is presented on Figure 2. Groundwater elevation measurements are also summarized in Table 1. The groundwater elevation beneath the site ranged from 2.57 feet amsl in well MW-8 to 7.71 feet amsl in well MW-6. Based upon the depth to water measurements recorded on October 8, 2014, the direction of groundwater flow beneath the majority of the site was generally to the west with a hydraulic gradient of 0.06 feet per foot and may be influenced by tidal variations.

4.2 GROUNDWATER SAMPLE LABORATORY ANALYSES

The results of laboratory analysis for the groundwater samples collected October 8, 2014 are summarized in Tables 1 and 5 and are illustrated on Figure 3. VFH, benzene, MTBE, and TBA isoconcentration maps are presented as Figures 4, 5, 6, and 7, respectively. Historical laboratory results for groundwater are summarized in Table 1 and the soil data are summarized in Table 2.

Maximum concentrations of VOCs that were detected in groundwater samples collected during this groundwater monitoring event include:

- VFH: 2,200 µg/L (MW-3)
- Benzene: 50 µg/L (MW-3)
- Ethylbenzene: 83 µg/L (MW-3)
- MTBE: 620 µg/L (MW-8)
- DIPE: 93 µg/L (MW-8)
- TBA: 830 µg/L (MW-3)
- Xylene: 2.1 µg/L (MW-3)
- Acetone: 540 µg/L (MW-1)

TAME, toluene, ETBE and ethanol were not detected above laboratory reporting limits during this monitoring event.

Concentrations versus time plots illustrating the concentration variations of VFH, benzene, MTBE, and TBA for wells MW-1 through MW-8 are included in Appendix D. Overall, groundwater analyte concentrations have decreased since the March 2002 sampling event.

5. REMEDIATION PROGRESS

Consistent with the RAP, SLR injected Klozur™ (persulfate) between August 28 and November 4, 2014 to remediate residual fuel-related constituents in groundwater at the site. These injections were conducted under a WDR permit approved by the LARWQCB (Order No. R4-2007-0019). The injection points utilized included IW-1, IW-2, IW-3, and MW-3 (Figure 8). Approximately 33,335 lbs of Klozur and 28,324 lbs of sodium hydroxide were injected during this reporting period. This is in addition to approximately 61,959 lbs. of Klozur™ and 84,580 lbs. of sodium hydroxide (at 25% solution) which were injected during previous reporting periods.

The County has injected the entire mass of Klozur™ that was planned, based on the results of the treatability study. Additional injections and/or other remediation efforts are not anticipated at this time. Groundwater monitoring will be conducted subsequently for evaluation purposes, results of which will be contained in the next report.

6. CONCLUSIONS

Localized areas of petroleum hydrocarbons and oxygenates have impacted groundwater within the boundaries of the Site. There are currently eight wells monitored on a semi-annual basis. Six wells (MW-1, MW-2, MW-3, MW-6, MW-7 and MW-8) are located onsite and two wells (MW-4 and MW-5) are located adjacent to the Site within a public right of way.

Groundwater concentrations in onsite wells have been monitored consistently since October of 2008. VFHs have only been detected at concentrations greater than 100 µg/L in four of eight wells (MW-1, MW-2, MW-3, and MW-8) since October of 2008. BTEX concentrations have not exceeded the MCLs in wells MW-2 and MW-4 through MW-7 since October of 2008. Toluene and xylenes were detected at concentrations above laboratory limits only in wells MW-1 and MW-3. MTBE concentrations have not exceeded its MCL in wells MW-2 and MW-4 through MW-6 since March of 2009. DIPE has been detected in the groundwater wells ranging in concentrations from 0.25 to 130 µg/L. ETBE has not been detected above laboratory reporting limits in the groundwater at the Site. TAME has been detected above laboratory reporting limits in only two wells, MW-1 and MW-3, at maximum concentrations of 50 µg/L. TBA has been detected at concentrations ranging from less than 10 to 9,500 µg/L. Ethanol has not been detected above laboratory reporting limits at this Site. VFHs, DIPE, ETBE, TAME, TBA, and ethanol currently do not have MCLs established. Overall, groundwater monitoring results indicate that concentrations of contaminants have decreased since the March 2002 sampling event.

Consistent with the RAP, and based on the treatability testing results, SLR injected Klozur™ (persulfate) between August 28 and November 4, 2014 to remediate residual fuel-related constituents in groundwater at the site. These injections were conducted under a WDR permit approved by the LARWQCB (Order No. R4-2007-0019). Approximately 33,335 lbs of Klozur and 28,324 lbs of sodium hydroxide were injected during this reporting period. This is in addition to approximately 61,959 lbs. of Klozur™ and 84,580 lbs. of sodium hydroxide (at 25% solution) which were injected during previous reporting periods.

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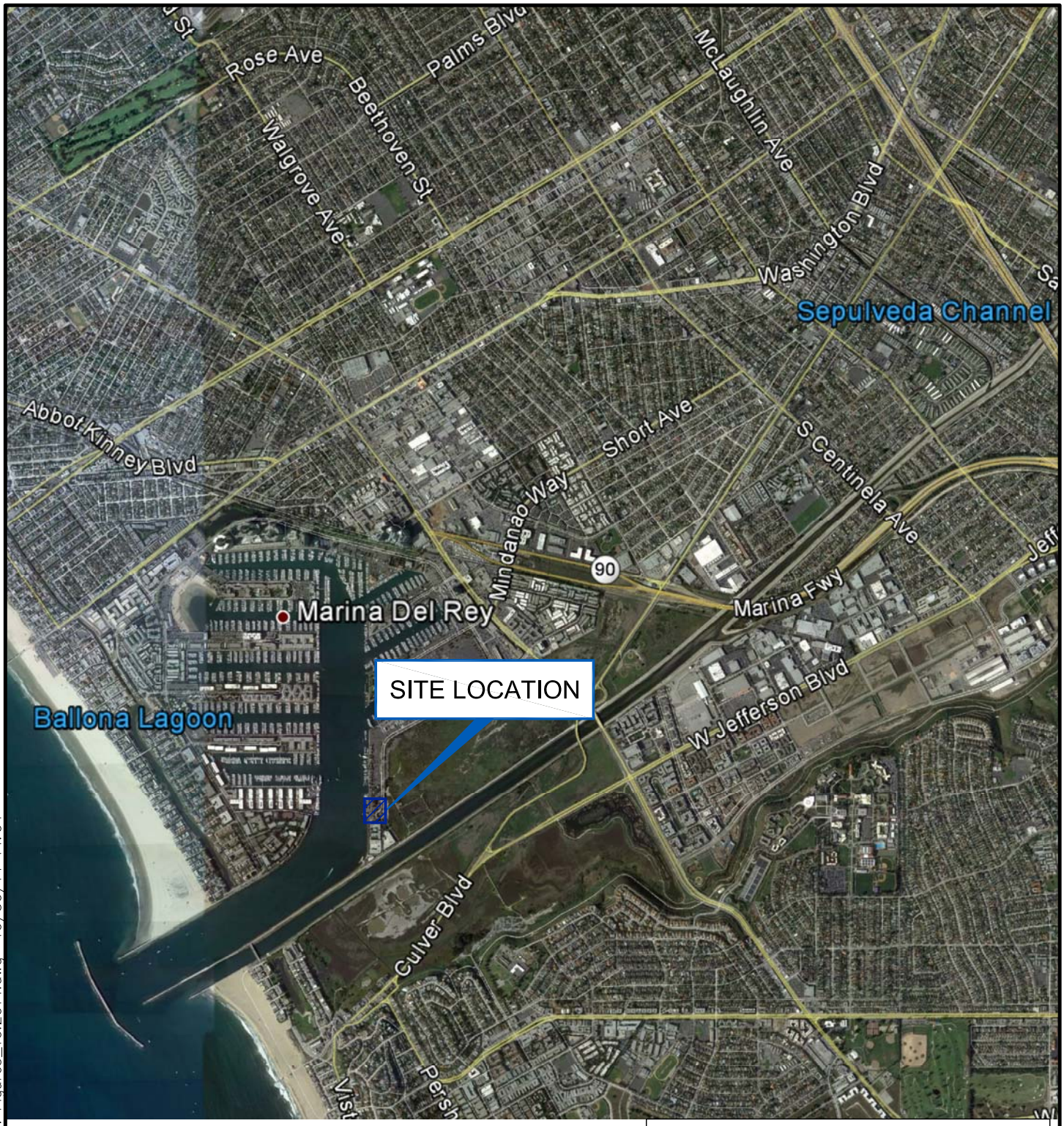
FIGURES



REFERENCED FROM : GOOGLE EARTH

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SCALE (MILE)

THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

SHERIFF STATION
13851 FIJI WAY
MARINA DEL REY, CALIFORNIA

SITE LOCATION MAP

November 2014	Rev 1.0	Figure No. 1
Project No. 117.00956.00001		

SLR Consulting USA Pty Ltd

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MARINA DEL REY HARBOR

WATER

DOCK

ABANDONED

DISPENSER

DOCK AREA

PARKING AREA

DISPENSER (PREVIOUS LOCATION)

PARKING

APARTMENT PARKING

COAST GUARD PARKING

COAST GUARD BUILDING

SHERIFF STATION

SHERIFF STATION

ABANDONED

ABANDONED

VENT PIPE

E/G

SB-26

MW-8 (2.57)

MW-7 (4.20)

SB-27

(0.0632 ft/ft)

4

5

6

7

SB-1

SG-6

SG-8

SG-9

SG-7

MW-1 (6.23)

SG-5

SB-3

SB-2

AS/SVE-2

SG-4

1,000gal GASLINE FUEL TANK

1,000gal DIESEL FUEL TANK

MW-3 (7.14)

AS/SVE-1

MW-2 (7.09)

SG-3

SG-1

SG-2

LAWN AREA

PLANTER

SB-28

MW-4 (7.27)

PLANTER

PLANTER

MW-6 (7.71)

SB-25

SB-24

PARKING

UTILITY ENCLOSURE

MW-5 (6.28)

SB-29

PLANTER

FIJI WAY

LEGEND

MW-4	GROUNDWATER MONITORING WELL LOCATION (MARCH 2009)
SB-3	SOIL BORING LOCATION (MARCH 2002)
SB-29	HYDROPUNCH LOCATION (SEPTEMBER 2002)
AS/SVE-2	AS/SVE WELL LOCATION
SG-9	SOIL GAS SAMPLE LOCATION
	UNDERGROUND FUEL STORAGE TANKS (REMOVED ON DEC. 2, 1998 BY CKY INC.)
(7.03)	GROUNDWATER ELEVATION (FT-AMSL) (NOVEMBER 16, 2012)
	GROUNDWATER ELEVATION CONTOUR
	APPROXIMATE DIRECTION OF GROUNDWATER FLOW (0.09 FT/FT)

N

0 30 60

SCALE (FEET)

SHERIFF STATION
13851 FIJI WAY
MARINA DEL REY, CALIFORNIA

SITE PLAN WITH GROUNDWATER CONTOURS OCTOBER 8, 2014

November 2014 | Rev 1.0 | Figure No. 2

Project No. 117.00956.00001

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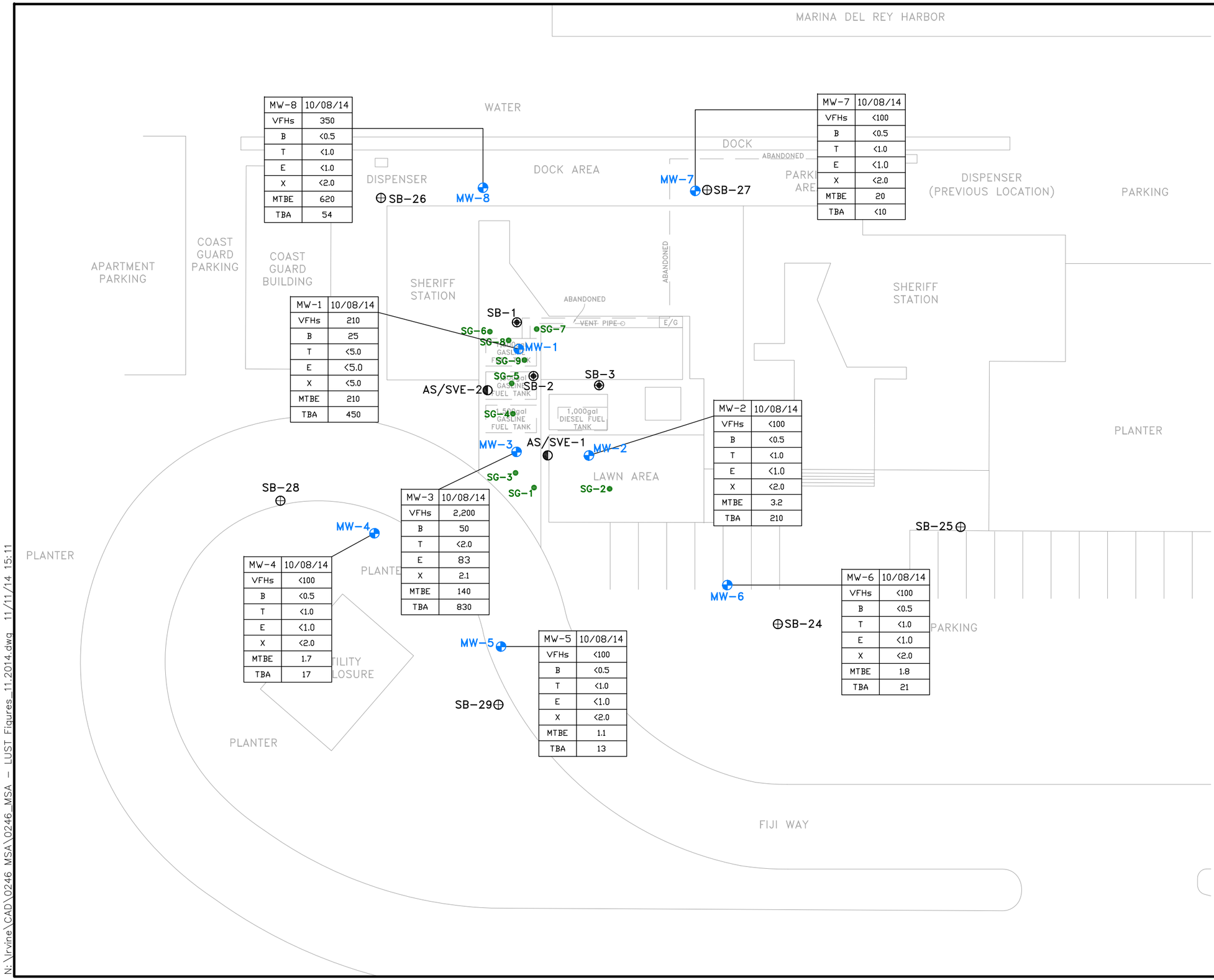

MW-8	10/08/14
VFHs	350
B	<0.5
T	<1.0
E	<1.0
X	<2.0
MTBE	620
TBA	54

MW-7	10/08/14
VFHs	<100
B	<0.5
T	<1.0
E	<1.0
X	<2.0
MTBE	20
TBA	<10

MW-1	10/08/14
VFHs	210
B	25
T	<5.0
E	<5.0
X	<5.0
MTBE	210
TBA	450

MW-2	10/08/14
VFHs	<100
B	<0.5
T	<1.0
E	<1.0
X	<2.0
MTBE	3.2
TBA	210

MW-3	10/08/14
VFHs	2,200
B	50
T	<2.0
E	83
X	2.1
MTBE	140
TBA	830

MW-4	10/08/14
VFHs	<100
B	<0.5
T	<1.0
E	<1.0
X	<2.0
MTBE	1.7
TBA	17

MW-5	10/08/14
VFHs	<100
B	<0.5
T	<1.0
E	<1.0
X	<2.0
MTBE	1.1
TBA	13

MW-6	10/08/14
VFHs	<100
B	<0.5
T	<1.0
E	<1.0
X	<2.0
MTBE	1.8
TBA	21

LEGEND

MW-4	GROUNDWATER MONITORING WELL LOCATION (MARCH 2009)
SB-3	SOIL BORING LOCATION (MARCH 2002)
SB-29	HYDROPUNCH LOCATION (SEPTEMBER 2002)
AS/SVE-2	AS/SVE WELL LOCATION
SG-9	SOIL GAS SAMPLE LOCATION
	UNDERGROUND FUEL STORAGE TANKS (REMOVED ON DEC. 2, 1998 BY CKY INC.)
VFHs	VOLATILE FUEL HYDROCARBONS (µg/L)
B	BENZENE (µg/L)
T	TOLUENE (µg/L)
E	ETHYLBENZENE (µg/L)
X	TOTAL XYLENES (µg/L)
MTBE	METHYL TERT-BUTYL ETHER (µg/L)
TBA	TERT-BUTANOL (µg/L)

N

0 30 60

SCALE (FEET)

SHERIFF STATION
13851 FIJI WAY
MARINA DEL REY, CALIFORNIA

GROUNDWATER ANALYTICAL MAP
OCTOBER 8, 2014

November 2014 | Rev 1.0 | Figure No. 3

Project No. 117.00956.00001

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MARINA DEL REY HARBOR

WATER

DOCK

ABANDONED

DISPENSER

SB-26

MW-8 (350)

DOCK AREA

MW-7 (<100)

SB-27

PARKING AREA

DISPENSER (PREVIOUS LOCATION)

PARKING

APARTMENT PARKING

COAST GUARD PARKING

COAST GUARD BUILDING

SHERIFF STATION

ABANDONED

SB-1

SG-6

SG-7

SG-8

VENT PIPE

E/G

MW-1 (210)

SG-9

SG-5

AS/SVE-2

SB-2

100

B-3

SG-4

1,000gal GASLINE FUEL TANK

1,000gal DIESEL FUEL TANK

SHERIFF STATION

PLANTER

MW-3 (2200)

AS/SVE-1

MW-2 (<100)

1000

SG-3

SG-1

LAWN AREA

SG-2

SB-28

MW-4 (<100)

PLANTER

PLANTER

SB-25

MW-6 (<100)

SB-24

PARKING

MW-5 (<100)

UTILITY ENCLOSURE

SB-29

PLANTER

FIJI WAY

LEGEND

- MW-4 — GROUNDWATER MONITORING WELL LOCATION (MARCH 2009)
- SB-3 — SOIL BORING LOCATION (MARCH 2002)
- SB-29 — HYDROPUNCH LOCATION (SEPTEMBER 2002)
- AS/SVE-2 — AS/SVE WELL LOCATION
- SG-9 — SOIL GAS SAMPLE LOCATION
- UNDERGROUND FUEL STORAGE TANKS (REMOVED ON DEC. 2, 1998 BY CKY INC.)
- (2,700) — VOLATILE FUEL HYDROCARBONS (VFHs) CONCENTRATION IN GROUNDWATER (µg/L)
- INFERRED VFH ISOCONCENTRATION CONTOUR

N

0 30 60

SCALE (FEET)

SHERIFF STATION
13851 FIJI WAY
MARINA DEL REY, CALIFORNIA

VFH ISOCONCENTRATION CONTOUR IN GROUNDWATER MAP OCTOBER 8, 2014

November 2014	Rev 1.0	Figure No. 4
Project No. 117.00956.00001		

SLR Consulting USA Pty Ltd

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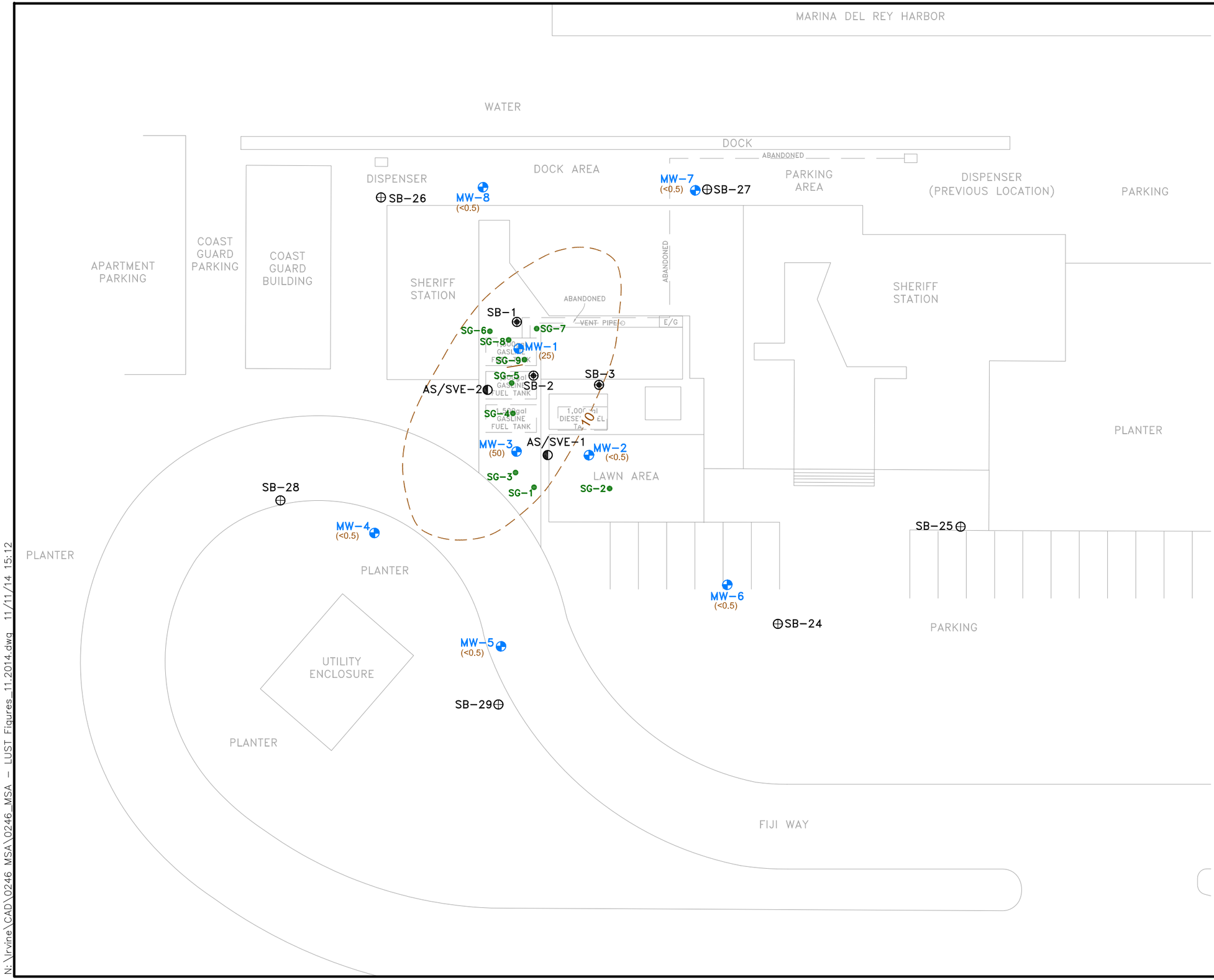

SHERIFF STATION
13851 FIJI WAY
MARINA DEL REY, CALIFORNIA

BENZENE ISOCONCENTRATION CONTOUR IN GROUNDWATER MAP
OCTOBER 8, 2014

November 2014	Rev 1.0	Figure No. 5
Project No. 117.00956.00001		

SLR Consulting USA Pty Ltd

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MARINA DEL REY HARBOR

WATER

DOCK

ABANDONED

DOCK AREA

DISPENSER

SB-26

500

MW-8
(620)

MW-7
(20)

SB-27

PARKING AREA

DISPENSER
(PREVIOUS LOCATION)

PARKING

APARTMENT PARKING

COAST GUARD PARKING

COAST GUARD BUILDING

SHERIFF STATION

100

ABANDONED

SB-1

VENT PIPE

E/G

SG-6

SG-7

SG-8

MW-1
(210)

SG-9

SG-5

SB-3

AS/SVE-2

SB-2

SG-4

1,000gal GASLINE FUEL TANK

1,000gal DIESEL FUEL TANK

MW-3
(140)

AS/SVE-1

MW-2
(3.2)

SG-3

SG-1

LAWN AREA

SG-2

SHERIFF STATION

PLANTER

SB-28

MW-4
(1.7)

PLANTER

SB-25

MW-6
(1.8)

SB-24

PARKING

MW-5
(1.1)

UTILITY ENCLOSURE

SB-29

PLANTER

FIJI WAY

LEGEND

- MW-4 — GROUNDWATER MONITORING WELL LOCATION (MARCH 2009)
- SB-3 — SOIL BORING LOCATION (MARCH 2002)
- SB-29 — HYDROPUNCH LOCATION (SEPTEMBER 2002)
- AS/SVE-2 — AS/SVE WELL LOCATION
- SG-9 — SOIL GAS SAMPLE LOCATION
- UNDERGROUND FUEL STORAGE TANKS (REMOVED ON DEC. 2, 1998 BY CKY INC.)
- (360) — MTBE CONCENTRATION IN GROUNDWATER (µg/L)
- INFERRED MTBE ISOCONCENTRATION CONTOUR

N

0 30 60

SCALE (FEET)

SHERIFF STATION
13851 FIJI WAY
MARINA DEL REY, CALIFORNIA

MTBE ISOCONCENTRATION CONTOUR IN GROUNDWATER MAP OCTOBER 8, 2014

November 2014	Rev 1.0	Figure No. 6
Project No. 117.00956.00001		

SLR Consulting USA Pty Ltd

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MARINA DEL REY HARBOR

WATER

DOCK

ABANDONED

DISPENSER

DOCK AREA

PARKING AREA

DISPENSER (PREVIOUS LOCATION)

PARKING

APARTMENT PARKING

COAST GUARD PARKING

COAST GUARD BUILDING

SHERIFF STATION

ABANDONED

ABANDONED

SHERIFF STATION

VENT PIPE

E/G

1,000gal GASOLINE FUEL TANK

1,000gal DIESEL FUEL TANK

PLANTER

LAWN AREA

PLANTER

PLANTER

UTILITY ENCLOSURE

PLANTER

PARKING

FIJI WAY

SB-26

MW-8 (54)

MW-7 (<10)

SB-27

SB-1

SG-6

SG-8

SG-9

SG-5

SG-4

SG-7

MW-1 (450)

SB-2

SB-3

AS/SVE-2

MW-3 (830)

AS/SVE-1

MW-2 (210)

SG-3

SG-1

SG-2

500

100

SB-28

MW-4 (17)

MW-6 (21)

SB-24

SB-25

MW-5 (13)

SB-29

LEGEND

- MW-4 — GROUNDWATER MONITORING WELL LOCATION (MARCH 2009)
- SB-3 — SOIL BORING LOCATION (MARCH 2002)
- SB-29 — HYDROPUNCH LOCATION (SEPTEMBER 2002)
- AS/SVE-2 — AS/SVE WELL LOCATION
- SG-9 — SOIL GAS SAMPLE LOCATION
- UNDERGROUND FUEL STORAGE TANKS (REMOVED ON DEC. 2, 1998 BY CKY INC.)
- (6,100) — TBA CONCENTRATION IN GROUNDWATER (µg/L)
- INFERRED TBA ISOCONCENTRATION CONTOUR

N

0 30 60

SCALE (FEET)

SHERIFF STATION
13851 FIJI WAY
MARINA DEL REY, CALIFORNIA

TBA ISOCONCENTRATION CONTOUR IN GROUNDWATER MAP OCTOBER 8, 2014

November 2014	Rev 1.0	Figure No. 7
Project No. 117.00956.00001		

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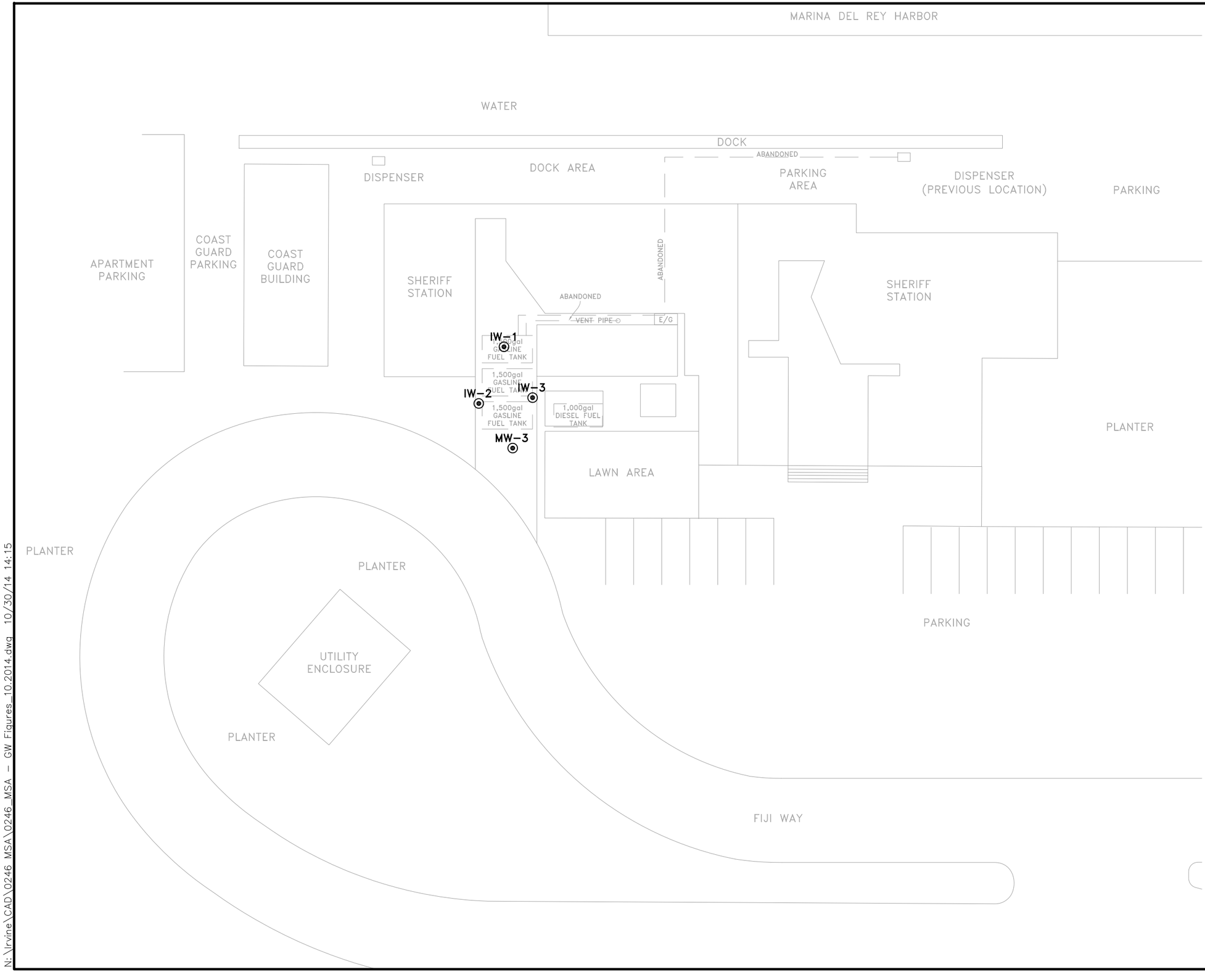

LEGEND

IW-3 GROUNDWATER INJECTION WELL

UNDERGROUND FUEL STORAGE TANKS (REMOVED ON DEC. 2, 1998 BY CKY INC.)

N

0 30 60

SCALE (FEET)

SHERIFF STATION
13851 FIJI WAY
MARINA DEL REY, CALIFORNIA

SITE PLAN SHOWING LOCATION OF INJECTION WELLS

November 2014	Rev 1.0	Figure No. 8
Project No. 117.00956.00001		

SLR Consulting USA Pty Ltd

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TABLES

Table 1
Summary of Groundwater Data
Marina Del Rey Sheriff's Station, 13851 Fiji Way, Marina Del Rey, California

Analytical Method						USEPA 5035/ CA LUFT	USEPA 5035/8260B												
Sample ID	Sample Date	Monitoring Program	DTW	Screen Interval (feet bgs)	Groundwater Elevation (ft AMSL)	VFH (C4-C12)	Benzene	Toluene	Ethyl-benzene	m,p-Xylenes	o-Xylene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA	Ethanol	Acetone
						µg/L													
MW-1	3/27/02	LUST	3.04		6.87	4,240	393	16	69	<20	<10	<10	--	--	1,310	--	--	--	--
	10/8/08	LUST	3.16		9.28	6,000 J	46 J	<50	<50	<100	<50	<100	<100	<100	6,600	<100	<1,000	<15,000	--
*	10/10/08	LUST	2.95		9.49	4,400	68	<25	<25	<50	<25	<50	<250	<250	5,300	<250	<500	<7,500	--
	3/19/09	LUST	4.01		8.43	13,000	400	<50	<50	<100	<50	<100	<100	<100	25,000	35 J	1,200	<15,000	--
#	6/5/09	LUST	2.97		9.47	3,500	18	2.0	2.4	2.6	0.62	3.2	4.3	<2.0	9,600	<2.0	9,500	<500	--
#	11/6/09	LUST	3.67		8.77	4,400	91	4.0	43	4.7	0.70	5.4	<2.0	<2.0	20,000	35	4,300	<500	--
#	12/18/09	LUST	n/a		--	7,700	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--
	1/8/10	LUST	3.65	3-20'	8.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#	2/5/10	LUST	n/a		--	4,300	120	5.7	46	5.5	0.92	6.4	6.2	<2.0	8,000	22	660	--	--
	3/19/10	LUST	3.26		9.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/30/10	LUST	3.35		9.09	4,400	67	3.5	21	9.7	1.4	11.1	4.8	<2.0	7,500	<2.0	3,900	<500	--
	8/5/10	LUST	3.41		9.03	2,700	77	3.4	5.8	6.5	1.2	7.7	6.7	<2.0	6,900	27	3,800	<500	--
	10/22/10	LUST	3.17		9.27	3,400	110	4.3	4.2	5.6	1.2	6.8	5.1	<2.0	3,400	<2.0	3,500	<500	--
#	5/27/11	LUST	3.39		9.05	3,700	220	5.4	19	5.3	1.0	6.3	15	<2.0	21,000 E	50	4,800	<500	--
	3/15/12	LUST	4.25		8.19	10,000	360	<100	<100	<100	<100	<200	<200	<200	10,000	<200	6,100	<10,000	--
	11/16/12	LUST	5.41		7.03	8,800	570	22	35	27	<20	27	<40	<40	3,100	<40	2,200	<2,000	--
	3/22/13	LUST	4.37		8.07	8,600	610	8.8	49	7.8	3.4	11.2	13.0	<4.0	7,200	20	3,700	<200	--
	5/10/13	WDR	4.61		7.83	8,000	380	<20	37	<20	<20	<40	<40	<40	5,500	<40	5,600	<2000	380
	7/11/13	WDR	4.54		7.90	580	<5	<10	<10	<10	<10	<20	<20	<20	26	<20	160	<1000	230
	8/16/13	LUST	4.46		7.98	2,200	76	2.2	9.4	9.9	6.8	16.7	<2.0	<2.0	2,300	3.1	590	<100	980
	4/25/14	WDR	6.05		6.39	120	2.3	<2	<2	<2	<2	<4	<4	<4	13	<4	80	<200	150
	5/16/14	LUST	5.75		6.69	390	14	<2	<2	<2	<2	<4	<4	<4	300	<4	1,400	<200	750
	10/8/14	LUST/WDR	6.21		6.23	210	25	<5	<5	<5	<5	<5	<10	<10	210	<10	450	<500	540
MW-2	3/27/02	LUST	7.30		4.75	3,440	<5	<5	<5	<10	<5	<5	--	--	1,990	--	90	--	--
	10/8/08	LUST	6.60		7.96	93 J	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	0.55 J	<1.0	7.7	<1.0	290	<150	--
*	10/10/08	LUST	--		--	910	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	0.89 J	<5.0	6.6	<5.0	260	<150	--
	3/19/09	LUST	7.11		7.45	1,700	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	0.67 J	<1.0	14	<1.0	350	<150	--
#	6/5/09	LUST	5.91		8.65	360	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	6.6	<2.0	<10	<500	--
#	11/6/09	LUST	7.25		7.31	570	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	8.6	<2.0	290	<500	--
#	1/8/10	LUST	7.29	5-20'	7.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/19/10	LUST	6.38		8.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/30/10	LUST	6.40		8.16	84	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	3.8	<2.0	78	<500	--
	8/5/10	LUST	6.60		7.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/22/10	LUST	6.27		8.29	140	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	1.1	<2.0	42	<500	--
#	5/27/11	LUST	5.72		8.84	200	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	7.3	<2.0	140	<500	--
	3/15/12	LUST	6.52		8.04	710	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	3.1	<2.0	150	<100	--
	11/16/12	LUST	7.52		7.04	2,000	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	1.3	<2.0	140	<100	--
	3/22/13	LUST	6.56		8.00	140	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	2.1	<2.0	190	<100	--
	5/10/13	WDR	6.71		7.85	590	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	2.6	<2.0	160	<100	<20
	7/11/13	WDR	7.05		7.51	120	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	2.8	<2.0	430	<100	<20
	8/16/13	LUST	7.05		7.51	1,900	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	2.2	<2.0	290	<100	<20
	4/25/14	WDR	6.91		7.65	350	0.63	<1	<1	<1	<1	<2	<2	<2	3.7	<2	500	<100	<20
	5/16/14	LUST	7.02		7.54	<100	<0.50	<1	<1	<1	<1	<2	<2	<2	3.7	<2	490	<100	<20
	10/8/14	LUST/WDR	7.47		7.09	<100	<5	<1	<1	<1	<1	<2	<2	<2	3.2	<2	210	<100	<20
MW-3	3/27/02	LUST	7.70		4.80	35,700	4,050	140	1,390	1,140	335	1,475	--	--	3,620	--	--	--	--
	10/8/08	LUST	7.59		7.40	11,000	600	34	180	48	<10	48	10 J	<20	4,000	25	200	<3,000	--
*	10/10/08	LUST	--		--	2,900	32	3.6 J	40	7.5 J	<5	<10	16 J	<50	840	<50	1,400	<1,500	--
	3/19/09	LUST	7.42		7.57	9,900	1,100	31	250	110	18	128	6.8 J	<20	2,400	13	380	<3,000	--
#	6/5/09	LUST	7.19		7.80	5,200	230	13	100	23	7.8	31	7.4	<2.0	990	<2.0	<10	<500	--
#	11/6/09	LUST	8.00		6.99	2,700	61	5.0	34	5.7	0.72	6.42	6.4	<2.0	1,200	6.9	530	<500	--
	1/8/10	LUST	8.25	5-20'	6.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/19/10	LUST	7.04		7.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/30/10	LUST	7.00		7.99	3,900	270	5.1	380	12	1.6	13.6	<2.0	<2.0	350	<2.0	360	<500	--
	8/5/10	LUST	7.45		7.54	750	56	1.6	66	1.9	0.69	2.59	4.7	<2.0	500	3.5	230	<500	--
	10/22/10	LUST	6.94		8.05	500	17	0.74	12	<1.0	<0.50	<1.0	<2.0	<2.0	110	<2.0	97	<500	--
#	5/27/11	LUST	6.28		8.71	3,300	100	6.0	58	4.7	1.1	5.8	13	<2.0	760	5.2	970 E-1	<500	--
	3/15/12	LUST	6.90		8.09	2,700	69	<5.0	13	<5.0	<5.0	<10.0	<10	<10	390	<10	910	<500	--
	11/16/12	LUST	8.02		6.97	1,400	7.6	<1.0	5.3	<1.0	<1.0	<2.0	<2.0	<2.0	82	<2.0	450	<100	--
	3/22/13	LUST	6.97		8.02	1,100	14.0	1.1	7.9	1.2	<1.0	1.2	2.8	<2.0	140	<2.0	560	<100	--
	5/10/13	WDR	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/11/13	WDR	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/16/13	LUST	7.01		7.98	8,200	330	6.2	870	13	2.6	15.6	7.7	<2.0	740	3.8	670	<100	160
	4/25/14	WDR	7.37		7.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/14	LUST	7.65		7.34	2,800	64	<2	98	2.4	<2	2.4	6.9	<4	280	<4	1100	<200	150
	10/8/14	LUST	7.85		7.14	2,200	50	<2	83	2.1	<2	2.1	4.8	<4	140	<4	830	<200	<40
MW-4	10/8/08	LUST	8.86		6.84	<100	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	0.25 J	<1.0	4.2	<1.0	32	<150	--
	3/19/09	LUST	9.10		6.60	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	0.54 J	<1.0	3.9	<1.0	110	<150	--
#	6/5/09	LUST	9.21		6.49	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	3.7	<2.0	<10	<500	--
#	11/6/09	LUST	9.89		5.81	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	3.0	<2.0	<10	<500	--
	4/30/10	LUST	8.35	5-25'	7.35	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	2.2	<2.0	<10	<500	--
	8/5/10	LUST	8.71		6.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/23/10	LUST	8.92		6.78	<30	<0.28	<0.36	<0.25	--	--	<0.9	<0.25	<0.28	1.7	<0.33	<6.5	<300	--
	10/22/10	LUST	8.99		6.71	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	<1.0	<2.0	<10	<500	--
#	5/27/11	LUST	6.57		9.13	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	<1.0	<2.0	<10	<500	--
	3/15/12	LUST	7.83		7.87	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<10	<100	--
	11/16/12	LUST	9.73		5.97	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<10	<100	--
	3/22/13	LUST	8.46		7.24	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<10	<100	--
	5/10/13	WDR	8.86		6.84	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<10	<100	<20
	7/11/13	WDR	8.72		6.98	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<10	<100	<20
	8/16/13	LUST	8.89		6.81	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<10	<100	<20
	4/25/14	WDR	9.11		6.59	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<10	<100	<20
	5/16/14	LUST	9.10		6.60	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<10	<100	<20
	10/8/14	LUST/WDR	8.43		7.27	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	1.7	<2.0	17	<100	<20

Analytical Method						USEPA 5035/ CA LUFT	USEPA 5035/8260B												
Sample ID	Sample Date	Monitoring Program	DTW	Screen Interval (feet bgs)	Groundwater Elevation (ft AMSL)	VFH (C4-C12)	Benzene	Toluene	Ethyl-benzene	m,p-Xylenes	o-Xylene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA	Ethanol	Acetone
							µg/L												
MW-5	10/8/08	LUST	8.84		6.88	<100	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	**1.4**	<1.0	**18**	<150	--
	3/19/09	LUST	9.35		6.37	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	**1.2**	<1.0	**14**	<150	--
#	6/5/09	LUST	9.08		6.64	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	<1.0	<2.0	<10	<500	--
#	11/6/09	LUST	9.85		5.87	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	**4.6**	<2.0	<10	<500	--
	4/30/10	LUST	8.10	5-25'	7.62	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	**1.3**	<2.0	**12**	<500	--
	8/5/10	LUST	8.65		7.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/23/10	LUST	8.86		6.86	<30	<0.28	<0.36	<0.25	--	--	<0.9	**0.31 J**	<0.28	**2.0**	<0.33	**23**	<300	--
	10/22/10	LUST	8.92		6.80	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	<1.0	<2.0	<10	<500	--
#	5/27/11	LUST	6.57		9.15	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	<1.0	<2.0	<10	<500	--
	3/15/12	LUST	7.83		7.89	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	**15**	<100	--
	11/16/12	LUST	9.51		6.21	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	**13**	<100	--
	3/22/13	LUST	8.37		7.35	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**1.2**	<2.0	**28**	<100	--
	5/10/13	WDR	8.57		7.15	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**1.4**	<2.0	**17**	<100	<20
	7/11/13	WDR	8.71		7.01	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**1.1**	<2.0	**14**	<100	<20
	8/16/13	LUST	8.81		6.91	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**1.2**	<2.0	**20**	<100	<20
	4/25/14	WDR	9.09		6.63	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**1.7**	<2.0	**55**	<100	<20
	5/16/14	LUST	9.11		6.61	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**2.1**	<2.0	**54**	<100	<20
	10/8/14	LUST/WDR	9.44		6.28	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**1.1**	<2.0	**13**	<100	<20
MW-6	10/8/08	LUST	6.72		8.59	<100	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	**1.0**	<1.0	**7.6 J**	<150	--
	3/19/09	LUST	7.40		7.91	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	**0.81**	<1.0	<10	<150	--
#	6/5/09	LUST	6.38		8.93	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	<1.0	<2.0	<10	<500	--
#	11/6/09	LUST	8.00	5-25'	7.31	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	**3.1**	<2.0	<10	<500	--
	4/30/10	LUST	7.26		8.05	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	**1.5**	<2.0	<10	<500	--
	8/5/10	LUST	7.63		7.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/22/10	LUST	7.40		7.91	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	<1.0	<2.0	<10	<500	--
#	5/27/11	LUST	6.43		8.88	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	**1.7**	<2.0	<10	<500	--
	3/15/12	LUST	7.24		8.07	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**1.1**	<2.0	**11**	<100	--
	11/16/12	LUST	7.94		7.37	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**1.1**	<2.0	<10	<100	--
	3/22/13	LUST	7.11		8.20	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<10	<100	--
	5/10/13	WDR	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/11/13	WDR	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/16/13	LUST	7.20		8.11	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<10	<100	<20
	4/25/14	WDR	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/14	LUST	7.65		7.66	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**1.8**	<2.0	**75**	<100	<20
	10/8/14	LUST	7.60		7.71	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**1.8**	<2.0	**21**	<100	<20
MW-7	10/8/08	LUST	7.78		4.17	**59 J**	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	**1.8**	<1.0	**99**	<1.0	**16**	<150	--
	3/19/09	LUST	8.36		3.59	**46 J**	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	**1.7**	<1.0	**110**	<1.0	**18**	<150	--
#	6/5/09	LUST	8.54		3.41	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	**51**	<2.0	<10	<500	--
#	11/6/09	LUST	6.77		5.18	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	**94**	<2.0	<10	<500	--
#	2/5/10	LUST	n/a	4.5-24.5'	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	**26**	<2.0	<10	--	--
R-01	4/30/10	LUST	9.29		2.66	<50	<1.2	<1.2	<1.2	<2.5	<1.2	<1.2	<5.0	<5.0	**27**	<5.0	<25	<1,200	--
	8/5/10	LUST	8.17		3.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/22/10	LUST	7.58		4.37	**50**	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	**7.6**	<2.0	<10	<500	--
#	5/27/11	LUST	7.65		4.30	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<2.0	<2.0	**73**	<2.0	<10	<500	--
	3/15/12	LUST	7.84		4.11	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**30**	<2.0	<10	<100	--
	11/16/12	LUST	8.53		3.42	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**32**	<2.0	<10	<100	--
	3/22/13	LUST	7.18		4.77	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**31**	<2.0	<10	<100	--
	5/10/13	WDR	8.81		3.14	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**34**	<2.0	<10	<100	<20
	7/11/13	WDR	9.05		2.90	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**27**	<2.0	<10	<100	<20
	8/16/13	LUST	8.27		3.68	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**25**	<2.0	**21**	<100	<20
	4/25/14	WDR	7.81		4.14	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	**18**	<2.0	**13**	<100	<20
	5/16/14	LUST	8.76		3.19	<100	<2.5	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	**24**	<10	<50	<500	<100
	10/8/14	LUST/WDR	7.75		4.20	<100	<2.5	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	**20**	<10	<50	<500	<100
MW-8	10/8/08	LUST	7.92		3.88	**840**	**35**	<2.5	**31**	<5.0	<2.5	<5.0	**35**	<5.0	**440**	<5.0	**150**	<750	--
	3/19/09	LUST	7.60		4.20	**380**	**16**	<1.0	**19**	<2.0	<1.0	<2.0	**57**	<2.0	**320**	<2.0	**84**	<300	--
#	6/5/09	LUST	8.58		3.22	**76**	**0.93**	<0.50	<0.50	<1.0	<0.50	<1.0	**24**	<2.0	**100**	<2.0	<10	<500	--
#	11/6/09	LUST	6.30		5.50	**93**	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	**18**	<2.0	**130**	<2.0	**39**	<500	--
#	2/5/10	LUST	n/a	5-25'	--	**100**	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	**67**	<2.0	**65**	<2.0	<10	--	--
	4/30/10	LUST	10.00		1.80	**57**	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	**5.2**	<2.0	**81**	<2.0	**16**	<500	--
	8/5/10	LUST	8.77		3.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/22/10	LUST	6.67		5.13	**92**	**0.59**	<0.50	<0.50	<1.0	<0.50	<1.0	**33**	<2.0	**44**	<2.0	**47**	<500	--
#	5/27/11	LUST	8.82		2.98	**54**	**3.0**	<0.50	**0.86**	<1.0	<0.50	<1.0	**50**	<2.0	**110**	<2.0	**71**	<500	--
	3/15/12	LUST	8.84		2.96	**210**	<1.0	<2.0	<2.0	<2.0	<2.0	<4.0	**130**	<4.0	**180**	<4.0	**49**	<200	--
	11/16/12	LUST	7.89		3.91	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	**7.8**	<2.0	**65**	<2.0	**17**	<100	--
	3/22/13	LUST	8.02		3.78	**410**	<2.5	<5.0	<5.0	<5.0	<5.0	<10.0	**120**	<10	**730**	<10	<50	<500	--
	5/10/13	WDR	10.75		1.05	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	**5.9**	<2.0	**49**	<2.0	<10	<100	<20
	7/11/13	WDR	9.32		2.48	**110**	**0.97**	<1.0	<1.0	<1.0	<1.0	<2.0	**14**	<2.0	**110**	<2.0	**190**	<100	<20
	8/16/13	LUST	8.51		3.29	**170**	**0.84**	<1.0	<1.0	<1.0	<1.0	<2.0	**26**	<2.0	**110**	<2.0	**81**	<100	<20
	4/2452014	WDR	6.99		4.81	**120**	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	**41**	<2.0	**100**	<2.0	**39**	<100	<20
	5/16/14	LUST	11.56		0.24	**140**	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	**18**	<2.0	**160**	<2.0	**32**	<100	<20
	10/8/14	LUST/WDR	9.23		2.57	**350**	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	**93**	<2.0	**620**	<2.0	**54**	<100	<20
California MCLs (µg/L)						--	1.0	150	300	--	--	1,750	--	--	13	--	--	--	

Notes: µg/L = micrograms per liter
* = analytical data collected after the 8-Hr Pilot Study
** = tap water screening level in micrograms per liter
# = carbon range reported for VFH is C6-C12.
< = not detected above the laboratory reporting limit.
Results greater than laboratory RLs are shown in bold.

DIPE = di-isopropyl ether
ETBE = ethyl tert-butyl ether
MTBE = methyl-tert-butyl-ether
TAME = tert-amyl methyl ether
TBA = tert-butanol
n/a = not analyzed

USEPA - U.S. Environmental Protection Agency
ft AMSL = feet above mean sea level
bgs = below ground surface
MCLs = maximum contaminant levels for drinking water
Red values are above California MCL levels.
-- = no data available; not applicable

Table 2
Summary of Soil Data
Marina Del Rey Sheriff's Station, 13851 Fiji Way, Marina Del Rey, California

Analytical Method			USEPA 8015B Mod.			USEPA 5035/ CA LUFT	USEPA 5035/8260B											
Analyte			DRO	ORO	EFH	VFH	Benzene	Ethyl-benzene	Toluene	m,p-Xylenes	o-Xylene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA	Ethanol
Sample ID	Sample Depth (ft bgs)	Sample Date	(C13-C22)	(C23-C32)	(C13-C32)	(C4-C12)												
			mg/kg			µg/kg	µg/kg											
RSL's (Residential Soil, November 2010) (mg/kg)			--	--	--	--	1.1	5.4	5,000	3,400	3,800	630	1,400	--	43	--	--	--
MW-4-3'	3	9/18/08	**9.3**	**20**	**29**	<110	<2.2	<2.2	<2.2	<2.2	<2.2	<4.4	<5.5	<5.5	<5.5	<5.5	<55	<330
MW-4-7'	7		**13**	<5.0	**16**	<87	<1.7	<1.7	<1.7	<1.7	<1.7	<3.5	<4.3	<4.3	<4.3	<4.3	**10** [ID,J]	<260
MW-4-12'	12		**9.2**	**28**	**37**	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<5.0	<5.0	<5.0	<5.0	<50	<120
MW-5-3'	3	9/18/08	<5.0	<5.0	<5.0	<89	<1.8	<1.8	<1.8	<1.8	<1.8	<3.6	<4.5	<4.5	<4.5	<4.5	<45	<270
MW-5-7'	7		<5.0	**6.0**	**7.8**	<86	<1.7	<1.7	<1.7	<1.7	<1.7	<3.4	<4.3	<4.3	<4.3	<4.3	<43	<260
MW-5-14'	14		<5.0	<5.0	<5.0	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<5.0	<5.0	<5.0	<5.0	<50	<300
MW-6-3'	3	9/19/08	<5.0	**4.4** [J]	**5.6**	<91	<1.8	<1.8	<1.8	<1.8	<1.8	<3.6	<4.6	<4.6	<4.6	<4.6	<46	<270
MW-6-7'	7		<5.0	<5.0	<5.0	<91	<1.8	<1.8	<1.8	<1.8	<1.8	<3.6	<4.5	<4.5	<4.5	<4.5	<45	<270
MW-6-12'	12		<5.0	**12**	**15**	<94	<1.9	<1.9	<1.9	<1.9	<1.9	<3.8	**0.75** [J]	<4.7	**11**	<4.7	<47	<280
MW-7-3'	3	9/19/08	<5.0	**4.2** [J]	**6.7**	<92	<1.8	<1.8	<1.8	<1.8	<1.8	<3.7	<4.6	<4.6	<4.6	<4.6	<46	<270
MW-7-7'	7	9/26/08	<5.0	<5.0	<5.0	**220**	**1.4** [J]	<1.9	<1.9	<1.9	<1.9	<3.9	<4.9	<4.9	**20**	<4.9	<49	<290
MW-7-12'	12	9/26/08	<5.0	<5.0	<5.0	<93	<1.9	<1.9	<1.9	<1.9	<1.9	<3.7	<4.7	<4.7	**23**	<4.7	<47	<280
MW-8-3'	3	9/19/08	<5.0	<5.0	<5.0	**86** [J]	<1.7	<1.7	<1.7	<1.7	<1.7	<3.5	<4.3	<4.3	<4.3	<4.3	<43	<260
MW-8-7'	7	9/26/08	<10	<10	<10	**3,000,000** [Z3]	<820	79,000	<820	<820	<820	<1,600	<2,100	<2,100	<2,100	<2,100	<41,000	<120,000
MW-8-12'	12	9/26/08	<5.0	<5.0	<5.0	**520**	<2.0	<2.0	<2.0	<2.0	<2.0	<3.9	**68**	<4.9	**760**	<4.9	**18** [J]	<290
AS/SVE-1-3'	3	9/19/08	<5.0	<5.0	<5.0	**190** [QP1]	<1.9	<1.9	<1.9	<1.9	<1.9	<3.9	<4.8	<4.8	**330**	**1.8** [J]	**54**	<290
AS/SVE-1-7'	7		**35**	<5.0	**36**	**6,500** [J]	<100	<100	<100	<100	<100	<200	<250	<250	**540**	<250	<5,000	<15,000
AS/SVE-1-12'	12		**4.9** [J]	<5.0	**6.1**	**33,000**	<85	<85	<85	<85	<85	<170	<210	<210	**730**	<210	**470** [I,J]	<13,000
AS/SVE-2-3'	3	11/20/09	**100** [D-08]	--	--	**2,400,000**	6,100 [R-07]	87,000 [R-07]	<250 [R-07]	**3,000** [R-07]	<250 [R-07]	--	<1,000 [R-07]	<1,000 [R-07]	**20**	<1,000 [R-07]	<2,500 [R-07]	<25,000 [R-07]
AS/SVE-2-7'	7		**24** [D-08]	--	--	**24,000**	4,600	**4,800**	**32**	**160**	**32**	--	<20	<20	**20,000**	**87**	**13,000** [E-1]	<500
AS/SVE-2-12'	12		<5.0	--	--	**2,200**	**400**	**22**	<5.0	<5.0	<5.0	--	<20	<20	**1,800**	<20	**390**	<500

Notes:

Analytical results greater than the reporting limit are shown in bold.
-- = no data available
< = not detected above the laboratory reporting limit.
ft bgs = feet below ground surface
= carbon range reported for VFH is C6-C12.

USEPA = U.S. Environmental Protection Agency
DRO = diesel range organics
ORO = oil range organics
EFH = extractable fuel hydrocarbons; quantitated against a diesel fuel standard.
MTBE = methyl-tert-butyl-ether

VFH = volatile fuel hydrocarbons
DIPE = di-isopropyl ether
ETBE = ethyl tert-butyl ether
TBA = tert-butanol
TAME = tert-amyl methyl ether
RSLs = regional screening level

QP1 = hydrocarbon result partly due to individual peak(s) in quantitation range.
I = internal standard recovery was outside of method limits. Matrix interference was confirmed.
ID = due to the low levels of analyte found in the sample, the analyte was qualitatively identified based on the compound's retention time and the presence of a single mass ion.
J = estimated value; analyte detected at a level less than the reporting limit (RL) and greater than or equal to the method detection limit (MDL). The user of this data should be aware that this data is of limited reliability.
Z3 = the sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
D-08 = results in the diesel organics range are primarily due to overlap from a gasoline range product.
R-07 = reporting limit for this compound(s) has been raised to account for dilution necessary due to high levels of interfering compound(s) and/or matrix affect.
E-1 = the final dilution was lower than the original data or previous dilutions; the highest recovered concentration was reported even though it was above calibration range.

Results greater than laboratory RLs are shown in bold.

Table 3
Summary of 8-Hour Air Sparge/Soil Vapor Extraction Events
Marina Del Rey Sheriff's Station, 13851 Fiji Way, Marina Del Rey, California

DATE	TIME	System Status	Process System Flowrate (CFM)	Undiluted Influent PID (ppmV)	Effluent PID (ppmV) <25	Manifold Vacuum (in H_2O)	Well Vacuum (in H_2O)	Extraction Wells PID (ppmv) SVE-1	SVE-2	MW-3	Injection Wells AS-1/AS-2	Observation Wells Vacuum/Pressure (in H_2O) MW-1	MW-2	MW-3	MW-4	MW-5	VW-6	Period Of Operation Hours	Cumulative Hydrocarbon Recovery based on PID	Cumulative Hydrocarbon Recovery based on LAB	Comments
12/4/09	9:00 AM	Off										-0.01	0	0	0	0	-0.01		0		8-hr AS/SVE event at wells AS/SVE-1 and 2.
12/4/09	10:15 AM	On	182	4,915		60		2,395	6,315		15	positive pressure; water bubbling inside well						0.25	3.0		started pulling off wells at 10 a.m.; 15 psi and 4 scfm (total flow)
12/4/09	12:00 PM	On	155	1,847		60		2,171	2,061		2							1.75	9.9		adjusted air sparge to 8.5 psi and increased vacuum to 120 in H_2O but generating too much water so decreased vacuum back to 60 in H_2O
12/4/09	2:00 PM	On	133	856	16	62	50	1,409	926		9	2.28	6.04	10.18	0	0	0	2.00	13.0		flow at < 1 scfm; at 10 psi flow is 0.6 scfm
12/4/09	2:20 PM	On									14	15	25	30	closed wells from			0.33	13.5		increased air sparge to 14 psi, flow at 3.4 scfm
12/4/09	3:00 PM	On	152	2,849		60	55	3,118	1,692		14	15	40	45	monitoring due to no			0.66	17.4		
12/4/09	4:00 PM	On	145	3,202		60	55	1,491	3,226		14	15	40	50	vacuum or pressure			1.00	23.7		
12/4/09	5:00 PM	On	146	2,994		62	55	821	3,300		14	15	40	45	influence			2.18	36.7		
12/4/09	6:00 PM	Off																**8.2**	**36.7**	**29.6**	Shut system off; 8.17 hours of system run time
12/18/09	8:00 AM	Off										-0.05	0	0	0	0	0				8-hr AS/SVE event at wells AS/SVE-1 and 2; startup at 8:14 a.m.
12/18/09	8:40 AM	On	37	1,453		41	38	1,542	1,986		8.5	4.25	0.40	4.08	wells			0.43	37.0		vacuum at startup is 60 in H2O; pulling water in vapor stream so
12/18/09	9:40 AM	On	41	1,664		45	44	987	1,774		8	0.50	0.80	0.46	have			1.00	37.9		vacuum was lowered to 41 in H2O and then increased to 45 in H2O;
12/18/09	10:40 AM	On	49	1,267		48	44	1,109	1,481		7.8	0.60	1.42	0.45	no vacuum			1.00	38.8		at 8 psi the flow is approximately 0.4 scfm (total)
12/18/09	11:40 AM	On	59	856	1.5	49	44	689	741		7	0.60	1.0	0	or pressure			1.00	39.4		distance from MW-1 to AS/SVE-2 is 126 inches (10.5 feet)
12/18/09	12:40 PM	On	59	762		49	48	701	793		7.5	2.7	1.2	0	influence			1.00	40.1		high tide = 8:19 a.m. low tide = 1:59 p.m.
12/18/09	1:40 PM	On	59	654		49	46	551	692		7.5	2.3	1.3	0.07				1.00	40.6		shut off air sparge at 1352 to collect water sample at the end of the day
12/18/09	2:40 PM	On	59	304		49	46	42.8	325		closed	0.08	0.07	-0.05	0	0	0	1.00	40.8		
12/18/09	3:40 PM	On	59	254		49	46	39.6	237			0.00	0.05	-0.04				1.57	41.1		
12/18/09	4:14 PM	Off																**8.0**	**41.1**	**34.2**	Shut system off; 8 hours of system run time
1/8/10	8:00 AM	Off																			Extracting from SVE-1, SVE-2
1/8/10	8:45 AM	On	56	1,715		53	52	4,194	1,306		16	+0.14	0	0				0.00	41.1		vacuum at startup is 53 in H2O; air sparge at 0.6 cfm total flow
1/8/10	9:45 AM	On	61	1,094		51	50	3,237	946		15	+18.95	+0.5	-0.54				1.00	42.1		
1/8/10	10:45 AM	On	67	1,445		55	54	612	932	4,720	15	+15.04	-44	-54	closed wells			1.00	43.4		added well MW-3 to extraction unit at 10:15 a.m. PID = 6,807 ppmv
1/8/10	11:45 AM	On	69	3,760		52	52	614	579	3,775	14	+0.23	-0.96	-52	from monitoring			1.00	46.9		
1/8/10	12:45 PM	On	74	972	4	50	50	578	626	3,775	14	+0.30	-1.16	-50	due to no vacuum			1.00	47.9		
1/8/10	1:45 PM	On	64	927		51	50	616	473	3,456	14	+0.35	-1.00	-50	or pressure influence			1.00	48.7		
1/8/10	2:45 PM	On	64	792		51	50	413	719	3,549	14	+0.77	-1.35	-50				1.00	49.4		
1/8/10	3:45 PM	On	67	771		51	50	703	453	3,111	14	+0.32	-1.53	-50				1.00	50.1		
1/8/10	4:30 PM	On	67	707		51	50	533	462	3,131	14	+0.33	-2.01	-50				1.00	50.7		
1/8/10	4:45 PM	Off																**8.0**	**50.7**	**38.4**	Shut system off; 8 hours of system run time
1/22/10	8:05 AM	Off										+4.78	+0.38								Extracting from SVE-1, SVE-2 and MW-3
1/22/10	8:35 AM	On	34	545		50	45	374	4,813	344	9	+10.50	+13.22					0.5	50.9		
1/22/10	9:30 AM	On	33	185		48	46	55	4,984	59	8	+9.44	+12.88					0.9	50.9		
1/22/10	11:00 AM	On	28	187		48	40	49	3,045	42	8	--		well	closed wells from monitoring due to no vacuum or pressure influence			1.5	51.0		placed iSOC in well MW-2 during AS/SVE event only to enhance bioremediation
1/22/10	12:00 PM	On	27	188	n/a	48	40	77.4	261	67.8	7.5	+3.68	iSOC	under				1.0	51.1		
1/22/10	1:00 PM	On	27	26		50	48	26	22	205	7.5	+6.08	in	extraction				1.0	51.1		
1/22/10	2:00 PM	On	27	23		48	47	31	82	38	7.5	+6.81	well					1.0	51.1		
1/22/10	3:00 PM	On	28	15		48	45	13	6	12	8	+9.85						1.0	51.1		turned off sparging
1/22/10	4:00 PM	On	28	8		48	45	6	87	48	0	+8.03						1.2	51.1		heavy rainfall all day
1/22/10	4:10 PM	Off																**8.2**	**51.1**	**38.7**	Shut system off; 8 hours of system run time
2/5/10	8:20 AM	Off						158	25	15											Extracting from SVE-1, SVE-2 and MW-3
2/5/10	8:30 AM	On	17.3	510		44	42	240	75	715	7 0.4							0.2	51.2		placed iSOC in well MW-1 during AS/SVE event only to enhance bioremediation
2/5/10	9:30 AM	On	17	350		42	41	125	57	522	7 0.4			-4.44				1.0	51.2		DO readings:
2/5/10	10:30 AM	On	15.7	152		41	41	73	15	199	4 0.4	temp.		-4.48				1.0	51.3		MW-8 = 31.6 mg/L @ 19.4 ^{O}C and 345 % saturation
2/5/10	11:30 AM	On	17.3	85		42	42	10	7.5	140	2 0.4	iSOC		-4.14	well			1.0	51.3		MW-7 = 23.9 mg/L @ 19.6 ^{O}C and 260 % saturation
2/5/10	12:28 PM	On	17	88	5	41	41	2.5	0	226	2 0.4	in		-2.19	under			1.0	51.3		MW-1 = 7.7 mg/L @ 17.2 ^{O}C and 76 % saturation (during event)
2/5/10	1:22 PM	On	19.3	82		41.5	41	0	0	265	2 0.4	well		-3.36	extraction			0.9	51.3		
2/5/10	2:20 PM	On	19	70		42.5	42	0	0	175	2 0.4			-2.78				1.0	51.3		
2/5/10	3:22 PM	On	19	43		41	41	0	0	55	2 0.4			-3.44				1.0	51.4		
2/5/10	4:15 PM	On	18.9	15		41	41	0	0	18	2 0.4			-3				1.0	51.4		heavy rainfall all day
2/5/10	4:20 PM	Off																**8.2**	**51.4**	**38.9**	Shut system off; 8 hours of system run time
2/19/10	7:05 AM	Off						85	15.5	1,540											Extracting from SVE-1, SVE-2 and MW-3
2/19/10	7:15 AM	On	18	500		45	45	960	440	1,075	2 2.5							0.17	51.4		placed iSOC in wells MW-1 and MW-2 during AS/SVE event only to enhance bioremediation
2/19/10	8:07 AM	On	19.6	2,370		47	47	2,292	2,731	4,315	9 0.6							0.87	51.9		
2/19/10	9:05 AM	On	18.5	1,078		45	45	1,095	1,275	1,233	8.5 0.6	temp.	temp.					1.03	52.2		MW-8 = 17.2 mg/L @ 18.7 ^{O}C and 190 % saturation
2/19/10	10:05 AM	On	20.8	855		45	45	565	983	2,699	8.5 0.6	iSOC	iSOC					1.00	52.4		MW-7 = 18.5 mg/L @ 19.1 ^{O}C and 210 % saturation
2/19/10	11:07 AM	On	20.5	960	12.8	45	45	862	1,150	3,322	8.5 0.6	in	in		well			1.03	52.7		MW-1 = 12.1 mg/L @ 16.8 ^{O}C and 128 % saturation (during event)
2/19/10	12:00 PM	On	20.6	887		45	45	549	1,084	3,291	8.5 0.6	well	well		under			0.88	52.9		MW-2 = 15.6 mg/L @ 17.7 ^{O}C and 199 % saturation (during event)
2/19/10	1:04 PM	On	19.6	938		45	45	811	1,103	3,774	8.5 0.6				extraction			1.07	53.2		
2/19/10	2:05 PM	On	19.6	953		45	45	981	1,177	2,867	8.5 0.6							2.05	53.7		
2/19/10	3:07 PM	On / Off	19.6	924		45	45	933	1,115	4,015	8.5 0.6							**8.2**	**53.7**	**39.1**	
3/5/10	7:05 AM	Off						65	22	360		-0.9	-0.02	-0.03							Extracting from SVE-1, SVE-2 and MW-3
3/5/10	7:20 AM	On	17.2	1,600		49	49	987	1,072	3,500	9 0.7							0.25	53.8		placed iSOC in wells MW-1 and MW-2 during AS/SVE event only to enhance bioremediation
3/5/10	8:10 AM	On	15.1	1,120		42	42	806	1,777	1,886	9 0.7							0.83	54.0		
3/5/10	9:00 AM	On	14.7	680		44	44	670	695	3,998	9 0.7				closed wells from			0.83	54.1		MW-8 = 22.6 mg/L @ 16.5 ^{O}C and 240 % saturation
3/5/10	10:07 AM	On	14.7	643		43	43	677	625	2,430	9 0.7	temp.	temp.		monitoring due to no			1.12	54.3		MW-7 = 17.9 mg/L @ 16.3 ^{O}C and 222 % saturation
3/5/10	11:05 AM	On	13.5	745	11.5	43	43	830	1,420	4,973	9 0.7	iSOC	iSOC		vacuum or pressure			0.97	54.4		MW-1 = 17.3 mg/L @ 17.0 ^{O}C and 179 % saturation (during event)
3/5/10	12:10 PM	On	13.8	673		43	43	640	915	2,450	9 0.7	in	in		influence			1.08	54.5		MW-2 = 7.6 mg/L @ 16.6 ^{O}C and 88 % saturation (during event)
3/5/10	1:07 PM	On	15.9	581		40	40	551	404	1,857	8 0.7	well	well					0.95	54.7		
3/5/10	2:04 PM	On	16.9	510		40	40	437	457	2,611	8 0.7							2.00	54.9		
3/5/10	3:07 PM	On / Off	19.6	460		40	40	324	470	5,500	8 0.7							**8.2**	**54.9**	**44.6**	
3/19/10	7:00 AM	Off										-0.26	0	0							Extracting from SVE-1, SVE-2 and MW-3
3/19/10	7:30 AM	On	19.6	651		37	NM	746	419	962	8.5 0.7							0.30	55.0		placed iSOC in wells MW-1 and MW-2 during AS/SVE event
3/19/10	8:30 AM	On	20.8	448		35	NM	1,017	403	665	8.5 0.7							1.00	55.1		MW-1 = 0.6 mg/L @ 16.1 ^{O}C and 6 % saturation (before event)
3/19/10	9:40 AM	On	19.6	466		35	NM	292	343	1,778	8 0.7							1.20	55.2		MW-1 = 47.8 mg/L @ 16.8 ^{O}C and 494 % saturation (end of event)
3/19/10	10:30 AM	On	19.6	502		35	NM	297	390	2,021	8 0.7							0.80	55.4		MW-2 = 5.7 mg/L @ 16.8 ^{O}C and 61 % saturation (before event)
3/19/10	11:40 AM	On	19.6	425	7	35	NM	293	395	2,683	8 0.7	temp.						1.20	55.5		MW-7 = 28.5 mg/L @ 18.9 ^{O}C and 306 % saturation
3/19/10	12:40 PM	On	17.2	477		35	NM	344	401	1,760	8 0.7	iSOC	iSOC					1.00	55.6		MW-8 = 35.7 mg/L @ 18.8 ^{O}C and 388 % saturation
3/19/10	1:30 PM	On	19.6	453		36	NM	304	388	2,425	8 0.7	in	in					0.80	55.7		
3/19/10	2:30 PM	On	19.6	465		36	NM	311	366	1,723	8 0.7	well	well					1.70	55.9		installed temporary vault at MW-2 and left iSOC inside well MW-2
3/19/10	3:10 PM	On / Off																**8.0**	**55.9**	**44.8**	
4/16/10	7:00 AM	Off																			Extracting from SVE-1, SVE-2 and MW-3
4/16/10	7:30 AM	On	24.5	1,032		38	38	734	1,053	998	9 NM							1.00	56.3		placed iSOC in well MW-1 during AS/SVE event
4/16/10	8:30 AM	On	24.5	890		37	37	758	982	958	9 NM							1.00	56.5		
4/16/10	9:30 AM	On	27	1,020		36	36	888	1,032	994	9 NM							1.00	56.9		MW-1 = 7.2 mg/L @ 16.9 ^{O}C and 78 % saturation
4/16/10	10:30 AM	On	27	996		35	35	828	994	958	8.5 NM	temp.						1.00	57.3		MW-2 = 8.9 mg/L @ 17.1 ^{O}C and 98 % saturation
4/16/10	11:30 AM	On	23.3	928	7	35	35	766	971	928	9 NM	iSOC	iSOC					1.00	57.6		MW-7 = 29.9 mg/L @ 18.6 ^{O}C and 318 % saturation
4/16/10	12:30 PM	On	23.3	1,022		35	35	914	1,130	1,089	9 NM	in	in					1.00	57.9		MW-8 = 34.4 mg/L @ 18.9 ^{O}C and 367 % saturation
4/16/10	1:30 PM	On	23.3	930		36	36	927	1,053	996	9 NM	well	well					1.00	58.2		
4/16/10	2:30 PM	On	23.3	934		35	35	918	1,013	998	9 NM							1.00	58.5		
4/16/10	3:30 PM	On / Off																**8.0**	**58.5**	**45.2**	
4/23/10	6:30 AM	Off																			Extracting from SVE-1 and SVE-2
4/23/10	7:00 AM	On	22	1,183		39	NM	1,546	966		9.5 0.8							0.50	58.7		placed iSOC in wells MW-1 and MW-3 during AS/SVE event
4/23/10	8:00 AM	On	20.8	671		37	NM	703	659		9 0.8							1.00	58.9		
4/23/10	9:00 AM	On	22	615		36	NM	601	651	temp.	9 0.8	temp.						1.00	59.0		
4/23/10	10:00 AM	On	22	649		36	NM	682	642	iSOC	8.5 0.8	iSOC	iSOC					1.00	59.2		
4/23/10	11:00 AM	On	22	625	5	36	NM	647	622	in	8.5 0.8	in	in					1.00	59.4		
4/23/10	12:00 PM	On	19.6	633		36	NM	676	618	well	8.5 0.8	well	well					1.00	59.6		
4/23/10	1:00 PM	On	19.6	679		36	NM	682	693		8.5 0.8							1.00	59.8		
4/23/10	2:00 PM	On	19.6	666		36	NM	664	688		8.5 0.8							1.50	60.0		
4/23/10	2:30 PM	On / Off																**8.0**	**60.0**	**45.6**	
5/7/10	6:30 AM	Off																			Extracting from SVE-1 and SVE-2
5/7/10	7:00 AM	On	22.1	789		36	NM	2,314	587		9 0.7							1.00	60.3		placed iSOC in wells MW-1 and MW-3 during AS/SVE event
5/7/10	8:00 AM	On	22.1	533		35	NM	676	462	912	10 0.7							1.00	60.4		
5/7/10	9:00 AM	On	24.6	407		35	NM	323	349	2,025	10 0.7	temp.						1.00	60.6		MW-1 = 11.5 mg/L @ 17.7 ^{O}C and 121 % saturation
5/7/10	10:00 AM	On	24.6	361		35	NM	317	362	1,641	10 0.7	iSOC	iSOC					1.00	60.7		MW-2 = 27 mg/L @ 18.7 ^{O}C and 285 % saturation
5/7/10	11:00 AM	On	23.3	307	7	36	NM	289	356	temp.	9 0.7	in	in					1.00	60.8		MW-3 = 24.8 mg/L @ 19.2 ^{O}C and 280 % saturation
5/7/10	laboratory RL	On	27	298		36	NM	307	354	iSOC	9 0.7	well	well					1.00	60.9		MW-7 = 35.1 mg/L @ 19.0 ^{O}C and 381 % saturation
5/7/10	1:00 PM	On	27	317		36	NM	312	342	in	9 0.8							1.00	61.0		MW-8 = 41.1 mg/L @ 19.0 ^{O}C and 486 % saturation
5/7/10	2:00 PM	On	24.6	502		36	NM	492	524	well	9 0.8							1.00	61.2		
5/7/10	2:30 PM	On / Off																**8.0**	**61.2**	**46.0**	
5/21/10	6:45 AM	Off																			Extracting from SVE-1 and SVE-2
5/21/10	7:45 AM	On	29.5	535		35	NM	1,683	403		NM							1.00	61.4		placed iSOC in wells MW-1 and MW-3 during AS/SVE event
5/21/10	8:45 AM	On	30.6	405		35	NM	797	398		NM							1.00	61.6		
5/21/10	9:45 AM	On	27	410		34	NM	686	374	temp.	NM	temp.						1.00	61.7		MW-1 = 17.8 mg/L @ 18.3 ^{O}C and 190 % saturation
5/21/10	10:45 AM	On	29.5	438		34	NM	792	395	iSOC	NM	iSOC	iSOC					1.00	61.9		MW-2 = 7.0 mg/L @ 18.1 ^{O}C and 74 % saturation
5/21/10	11:45 AM	On	27	457	4	36	NM	1,792	481	in	NM	in	in					1.00	62.1		MW-3 = 50.6 mg/L @ 19.3 ^{O}C and 548 % saturation
5/21/10	12:45 PM	On	27	464		35	NM	3,461	436	well	NM	well	well					1.00	62.2		MW-7 = 34.8 mg/L @ 19.5 ^{O}C and 381 % saturation
5/21/10	1:45 PM	On	29.5	422		35	NM	1,215	417		NM							1.00	62.4		MW-8 = 17.9 mg/L @ 19.7 ^{O}C and 194 % saturation
5/21/10	2:30 PM	On	29.5	469		35	NM	1,122	446		NM							1.00	62.6		
5/21/10	2:45 PM	On / Off																**8.0**	**62.6**	**46.4**	

Notes: Blank cells = data not collected temp. = temporary perm. = permanent
lab data used to calculate hydrocarbon recovery is found in Table 4; average flowrate and total VOC's is used
*Vacuum measured at the manifold. All vacuum readings noted as negative on manometer, negative sign removed in the table above.

Table 4
Summary of Soil Vapor Data - AS/SVE 8-Hour Events
Marina Del Rey Sheriff's Station, 13851 Fiji Way, Marina Del Rey, California

Sample ID	Sample Date	Sample Time	TPH-g (C4-C14) (ppmv)	Volatile Organic Compounds (ppmv)																Fixed Gases (% v)			
				Benzene	Ethyl benzene	Toluene	Total Xylenes	MTBE	TAME	TBA	DIPE	ETBE	Ethanol	Chloroform	Heptane	Hexane	Cyclo-hexane	4-Ethyl toluene	1,3,5-Trimethyl benzene	1,2,4-Trimethyl benzene	Methane (ppmv)	Carbon Dioxide	Oxygen	Nitrogen
AS/SVE-1	12/04/09	10:25 AM	1,660	39	14	<0.050	6.1	<0.050	<0.050	<0.050	<0.050	<0.050	0.1	0.15	<0.050	<0.050	<0.050	1.9	0.54	1.9	3,500	2.70	19.4	68.7
		5:35 PM	216	0.78	0.86	0.22	0.322	0.78	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	2.2	<0.050	<0.050	0.1	<0.050	0.12	3,900	1.98	20.9	73.1
	12/18/09	8:34 AM	805	0.49	0.38	0.56	2.03	0.28	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	57	<0.050	0.65	0.44	1.4	9,100	4.01	17.8	70.6
		3:19 PM	9.7	0.25	0.23	0.059	0.15	0.084	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.17	0.44	<0.050	0.094	<0.050	0.14	1,200	0.39	25.4	76.3
	01/08/10	9:18 AM	927	0.43	0.17	0.1	0.264	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	38	<0.050	0.15	0.05	0.22	3,600	2.47	20.5	88.0
		4:18 PM	98.4	2.1	1.8	0.077	0.667	0.31	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	2.5	4.7	<0.050	0.38	0.12	0.48	650	0.35	25.1	83.1
	01/22/10	8:36 AM	45.6	2.7	1.4	0.12	0.671	0.24	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	1.2	4.3	<0.050	0.26	0.07	0.32	--	--	--	--
		4:00 PM	4.0	0.068	0.067	0.09	0.067	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.061	0.17	<0.050	<0.050	<0.050	0.06	--	--	--	--
AS/SVE-2	12/04/09	10:30 AM	1,760	1.6	1.0	<0.050	3.23	<0.050	<0.050	<0.050	<0.050	<0.050	0.073	<0.050	<0.050	<0.050	<0.050	0.83	0.33	1.0	29,000	4.28	16.6	73.8
		5:30 PM	927	15	9.8	0.28	1.83	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.76	0.18	0.76	3,100	0.71	22.5	71.1
	12/18/09	8:37 AM	612	23	9.6	0.29	4.12	1.4	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	24	70	<0.050	1.2	0.35	1.9	3,000	1.11	24.1	76.4
		3:20 PM	64.1	1.5	1.2	0.073	0.444	0.32	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	1.1	3.0	<0.050	0.23	0.10	0.31	650	0.67	25.1	75.8
	01/08/10	9:15 AM	210	5.5	4.1	0.13	2.86	0.39	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	5.2	14	<0.050	1.0	0.32	1.6	890	0.60	25.5	77.3
		4:25 PM	114	2.4	2.1	0.082	0.737	0.36	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	2.5	5	<0.050	0.44	0.14	0.55	330	0.24	26.7	81.4
	01/22/10	8:40 AM	136	4.3	2.2	0.15	1.330	0.42	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	3.2	10	<0.050	0.49	0.14	0.68	--	--	--	--
		3:50 PM	593	6.9	1.9	0.1	1.026	0.19	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	9.7	47	<0.050	0.33	0.11	0.37	--	--	--	--
MW-3	01/22/10	8:38 AM	107	4	2.4	0.17	0.845	0.31	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	2.1	7.8	<0.050	0.31	0.086	0.34	--	--	--	--
		3:55 PM	11.1	0.1	0.076	0.063	0.065	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.25	0.81	<0.050	<0.050	<0.050	0.051	--	--	--	--
Influent	02/05/10	8:30 AM	74.5	0.6	0.38	0.058	0.243	0.55	<0.050	<0.050	<0.050	<0.050	0.078	<0.050	0.18	0.67	<0.050	0.095	<0.050	0.14	--	--	--	--
		4:15 PM	2.88	<0.050	<0.050	<0.050	0.07	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	--	--	--	--
	02/19/10	8:15 AM	73	3	1.7	0.085	1.28	0.32	<0.050*	4.5*	<0.050*	<0.050*	<0.050	<0.050	5.4	13	<0.050	0.13	0.13	0.34	--	--	--	--
		3:05 PM	99.3	3.4	2.6	0.056	1.069	0.66	<0.050*	7.4*	<0.050*	<0.050*	0.064	<0.050	6.1	12	<0.050	0.34	0.21	0.73	--	--	--	--
	03/05/10	7:20 AM	3,030	12	8.4	0.37	1.34	2.3	<0.050*	<0.050*	<0.050*	<0.050*	<0.050	<0.050	<0.050	83	<0.050	0.33	0.16	0.48	--	--	--	--
		3:05 PM	109	2.9	1.3	0.087	0.99	0.46	<0.050*	<0.050*	<0.050*	<0.050*	<0.050	<0.050	<0.050	6.9	<0.050	0.20	0.089	0.32	--	--	--	--
	03/19/10	7:30 AM	84	2.2	1.4	<0.050	0.547	0.3	<0.050*	<0.050*	<0.050*	<0.050*	<0.050	<0.050	<0.050	5.5	<0.050	0.099	0.073	0.27	--	--	--	--
		3:00 PM	18.1	0.51	0.25	<0.050	0.097	0.099	<0.050*	<0.050*	<0.050*	<0.050*	0.099	<0.050	0.65	1.3	<0.050	<0.050	<0.050	0.055	--	--	--	--
	04/16/10	7:30 AM	110	9	3.2	0.075	1.84	0.5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	6.8	27	<0.050	0.40	0.16	0.63	--	--	--	--
		2:45 PM	42.4	2.7	1.2	<0.050	0.41	0.41	<0.050	<0.050	<0.050	<0.050	0.069	<0.050	2.1	4.7	<0.050	0.15	0.068	0.22	--	--	--	--
	04/23/10	7:00 AM	113	8.8	3.7	0.057	2.36	0.48	<0.050	<0.050	<0.050	<0.050	0.1	<0.050	6.2	20	<0.050	0.38	0.18	0.81	--	--	--	--
		2:15 PM	50.8	3.4	1.5	<0.050	0.57	0.38	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	2.8	6.1	<0.050	0.16	0.081	0.28	--	--	--	--
	05/07/10	7:00 AM	111	6.1	3.3	<0.050	2.1	<0.050	<0.050*	<0.050*	<0.050*	<0.050*	<0.050	<0.050	8.0	19	1.3	<0.050	<0.050	<0.050	--	--	--	--
		2:15 PM	56.6	2.9	1.9	<0.050	1.0	<0.050	<0.050*	<0.050*	<0.050*	<0.050*	<0.050	<0.050	4.2	6.8	0.86	<0.050	<0.050	<0.050	--	--	--	--
	05/21/10	7:15 AM	121	3.8	1.6	<0.050	1.265	0.22	<0.050*	<0.050*	<0.050*	<0.050*	<0.050	<0.050	3.5	10	<0.050	0.26	0.11	0.46	--	--	--	--
		2:30 PM	24.1	0.74	0.3	<0.050	0.16	0.13	<0.050*	<0.050*	<0.050*	<0.050*	<0.050	<0.050	0.82	1.8	<0.050	0.055	<0.050	0.074	--	--	--	--

Notes: TPH-g = Total Petroleum Hydrocarbons gasoline analyzed by EPA Method TO-3/TO-14m, Carbon range C4-C14.
VOCs analyzed by EPA Method TO-14
ppmv = parts per million as vapor
<0.050 = Less than the Laboratory Reporting Limit
-- = Not Analyzed
* = TIC = analyte was scanned for as a tentatively identified compound (TIC), hoever, no standard has been analyzed to verify quantitation.Associated RL and/or reported concentration is only an estimate.

Table 5
Remediation Testing Parameters
Marina Del Rey Sheriff's Station, 13851 Fiji Way, Marina Del Rey, California

Field Parameters									Laboratory Parameters																										
Sample ID	Sample Date	DO (mg/L)	pH	Temperature (^{o}C)	Conductivity (µS/cm)	Turbidity (ntu)	ORP (mV)	Persulfate (g/L)	Alkalinity as $CaCO_3$ (mg/L)	Carbonate Alkalinity as $CaCO_3$ (mg/L)	Bicarbonate Alkalinity as HCO_3 (mg/L)	Hydroxide Alkalinity as $CaCO_3$ (mg/L)	Carbon Dioxide (CO_2) (mg/L)	Formaldehyde(CH_2O) (mg/L)	Salinity (salinity units)	Nitrate as NO_3 (mg/L)	Nitrite as NO_2 (mg/L)	Mn (µg/L)	Fe(t) (µg/L)	Fe^{3+} (µg/L)	Fe^{2+} (mg/L)	As (mg/L)	B (mg/L)	Br (mg/L)	Cr(t) (mg/L)	Cr(VI) (mg/L)	Na (mg/L)	Sulfate as SO_4 (mg/L)	Methane (CH_4) (ug/L)	TOC (mg/L)	BOD (mg/L)	COD (mg/L)	Cl (mg/L)	TDS (mg/L)	TSS (mg/L)
MW-1	10/8/08	2.88	7.68	28.80	179	485	-276	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**23**	**46**	**150**	**840**	**80**
	3/19/09	0.00	6.84	15.80	86.3	92	-140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/5/09	2.89	7.45	19.20	1,412	5.2	-335	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/6/09	20.71	7.60	22.80	1,679	30.1	-326	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**22**	**120**	**135**	**750**	**40**
pre-purge	12/1/09	--	--	--	--	--	--	--	**810**	<2.0	**990**	<2.0	**85.4**	--	**0.051**	**1.1**	<0.500	<500	--	<180	<0.100	--	--	--	--	--	--	**5.66**	**82500**	**14**	--	--	--	--	--
post-purge	12/1/09	--	--	--	--	--	--	--	**810**	<2.0	**990**	<2.0	**102**	--	**0.049**	**0.883**	<0.500	<500	--	<180	<0.100	--	--	--	--	--	--	**4.74**	**65800**	**14**	--	--	--	--	--
post-purge	3/30/10	29.53	7.74	16.30	1,526	59.9	-269	--	--	--	--	--	**83.6**	--	--	<0.500	<0.500	<500	--	**2100**	**0.165**	--	--	--	--	--	--	**33.6**	**27100**	--	--	--	--	--	--
	4/30/10	10.94	8.41	16.96	1,606	2.37	-268	--	**700**	<10	**860**	<10	**101**	--	**0.045**	<0.500	<0.500	<500	--	**460**	<0.100	--	--	--	--	--	--	**37.3**	**297**	**14**	**16**	**94**	**147**	**730**	**29**
	8/5/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**21**	**10**	--	--	--
	5/27/11	0.46	7.69	17.9	2,254	64.2	-345	--	--	--	--	--	**60**	--	--	<0.500	<0.500	**270**	--	**1600**	<0.100	--	--	--	--	--	--	**29.3**	**71100**	--	**34**	**91**	**206**	**940**	--
	3/15/12	0.29	7.23	15.9	2,012	7	-218	--	--	--	--	--	**120**	--	--	<0.10	<0.10	**704**	**38000**	**38000**	<0.100	--	--	--	**0.0288**	<0.001	--	**1.1**	**4090**	--	**11**	**99**	--	--	--
	11/16/12	1.00	6.75	19.5	2,100	>1,000	-79	--	--	--	--	--	**160**	--	--	<0.10	<0.10	**1210**	**62800**	**62800**	<0.100	--	--	--	**0.0584**	<0.001	--	**3.8**	**1920**	--	**13**	**100**	--	--	--
	3/22/13	0.29	6.91	16.3	1,551	5	-301	--	--	--	--	--	**180**	--	--	<0.10	<0.10	**286**	**291**	**291**	<0.100	--	--	--	<0.0100	<0.001	--	**15**	**1180**	--	**23**	**120**	--	--	--
	5/10/13	0.34	6.94	18.1	2,315	16	-227	--	**971**	--	--	--	**150**	**0.74**	--	<0.10	<0.10	**1360**	**79700**	**--**	<0.100	**0.0513**	**1.1**	**0.53**	**0.0614**	<0.001	**261**	**7.6**	**1300**	**110**	**12**	**190**	**150**	**1360**	--
	7/11/13	25.01	13.87	25.3	127,500	71,000	301	--	**21000**	--	--	--	<1.0	**0.24**	--	--	--	**845**	**43700**	**--**	<0.100	**0.858**	**1.92**	<100	**0.424**	<1	**44500**	**76000**	**3.8**	**670**	**--**	**--**	<1000	**193000**	--
	8/16/13	3.13	10.60	24.6	62,640	40	230	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/14	10.53	13.44	24.9	170,297	>1000	400	20	**50000**	--	--	--	<1	**0.50**	--	--	--	**1010**	**8790**	--	<0.100	**0.881**	**2.43**	<10	**0.898**	**0.97**	**81900**	**110000**	<1	**5200**	--	--	<100	**106000**	--
	5/16/14	6.96	14.11	23.6	158,864	>1000	83	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/8/14	4.22	13.39	25.4	120,416	132	193	--	**20600**	--	--	--	--	**0.43**	--	--	--	**75.1**	**2800**	**--**	**0.138**	**0.885**	**2.45**	<10	**0.597**	**0.59**	**77100**	**57000**	**9.76**	**1100**	--	--	**120**	**92900**	--
MW-2	10/8/08	2.99	7.89	26.60	252	0	-207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/19/09	0.00	7.20	17.30	89.4	220	-195	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/5/09	2.70	7.87	17.60	1,516	30.4	-330	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/6/09	3.96	7.95	23.30	1,452	264	-276	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.2**	**340**	**123**	**680**	**200**
post-purge	12/1/09	--	--	--	--	--	--	--	**650**	<2.0	**790**	<2.0	**93.9**	--	**0.045**	<0.500	<0.500	<500	--	**350**	**0.345**	--	--	--	--	--	--	**61.7**	**6510**	**6.5**	--	--	--	--	--
	4/30/10	15.72	8.51	17.33	1,490	275	-168	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/12	0.26	7.72	17.0	1,659	174	-236	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0527**	<0.001	--	--	--	--	**5.3**	**65**	--	--	--
	11/16/12	1.35	7.11	20.2	1,870	39	-130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0928**	<0.001	--	--	--	--	**8.3**	**120**	--	--	--
	3/22/13	0.23	7.41	18.7	1,892	304	-245	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0354**	<0.001	--	--	--	--	**7.2**	**180**	--	--	--
	5/10/13	0.74	7.37	18.1	2,092	360	-234	--	**690**	--	--	--	**34**	**1.1**	--	<0.10	<0.10	**2790**	**204000**	**--**	<0.100	**0.199**	**0.834**	**0.43**	**0.101**	<0.001	**235**	**200**	**287**	**68**	**2.7**	**400**	**140**	**1320**	--
	7/11/13	0.21	6.91	19.6	10.89	97	-221	--	**1000**	--	--	--	**240**	**0.21**	--	--	--	**864**	**13100**	**--**	**0.331**	<0.01	**0.895**	**0.1**	<0.01	**0.0014**	**2030**	**70**	**271**	**120**	--	--	**21**	**8240**	--
	8/16/13	0.73	7.12	20.6	7,539	303	-220	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/14	0.63	6.75	20.0	17,850	370	-254	--	**1700**	**--**	**--**	**--**	**420**	**0.48**	--	--	--	**2920**	**15100**	**--**	**1.87**	**0.0373**	**1.09**	<0.5	**0.0215**	<0.005	**5670**	**13000**	**62.2**	**120**	**--**	**--**	**120**	**19600**	
	5/16/14	0.20	6.82	19.8	22,648	330	-219	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/8/14	0.31	7.33	26.1	12,999	58	-102	--	**1340**	--	--	--	**83**	**0.33**	--	--	--	**1270**	**15100**	**--**	**0.475**	**0.0347**	**1.11**	<0.5	<0.01	<0.005	**4350**	**9100**	**27.2**	**140**	--	--	**180**	**15700**	--
MW-3	10/8/08	1.96	7.94	23.80	520	155	-201	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	--	--	--	--
	3/19/09	0.00	7.06	19.80	201	274	-120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/5/09	1.21	7.79	20.00	2,324	43	-325	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/6/09	1.41	8.05	22.90	2,025	173	-348	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**9.8**	**290**	**146**	**3000**	**36**
post-purge	12/1/09	--	--	--	--	--	--	--	**900**	<2.0	**1100**	<2.0	**59.8**	--	**0.058**	**0.992**	<0.500	<500	--	**390**	**0.378**	--	--	--	--	--	--	**72.9**	**31400**	**10**	--	--	--	--	--
post-purge	3/30/10	36.02	8.00	19.93	2,155	89.6	-243	--	--	--	--	--	**109**	--	--	<0.500	<0.500	<500	--	**1700**	**0.219**	--	--	--	--	--	--	**73.5**	**1660**	**--**	**--**	**--**	**--**	**--**	**--**
	4/30/10	14.53	8.46	19.43	1,663	999	-222	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/5/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.3**	**89**	--	--	--
	3/15/12	0.24	7.57	18.2	2,040	13	-264	--	--	--	--	--	**48**	--	--	<0.10	<0.10	**1130**	**81700**	**81500**	**0.156**	--	--	--	**0.0689**	<0.001	--	**9.5**	**2600**	--	**12**	**120**	--	--	--
	11/16/12	0.96	7.18	20.7	2,152	38	-114	--	--	--	--	--	**60**	--	--	<0.10	<0.10	**1150**	**75400**	**75400**	<0.100	--	--	--	**0.064**	<0.001	--	**29**	**1370**	--	**8.4**	**60**	--	--	--
	3/22/13	0.16	7.36	20.4	1,622	20	-259	--	--	--	--	--	**49**	--	--	<0.10	<0.10	**604**	**37500**	**37500**	<0.100	--	--	--	**0.0379**	<0.001	--	**32**	**1230**	--	**6.8**	**140**	--	--	--
	5/10/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/11/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/16/13	0.34	8.92	23.30	30,899	120	-188.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/14	0.44	7.34	21.68	45,712	898	162.9	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/14	0.15	7.12	22.80	38,017	>1,000	-26.1	5.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/8/14	0.53	7.27	23.4	30,116	>1,000	-30.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	10/8/08	2.37	7.87	24.90	7,490	405	81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	--	--	--	--
	3/19/09	3.68	7.00	20.80	158	86	-48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/5/09	1.34	7.62	21.20	2,242	81	-167	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/6/09	--	7.67	22.40	2,367	17.8	-127	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.0	**42**	**106**	**930**	<2.0
post-purge	12/1/09	--	--	--	--	--	--	--	**680**	<2.0	**830**	<2.0	**59.8**	--	**0.063**	**0.797**	<0.500	**910**	--	**210**	**0.198**	--	--	--	--	--	--	**446**	**14.4**	**9.7**	--	--	--	--	--
	4/30/10	17.00	8.22	19.30	2,725	110	-172	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/12	1.09	6.73	20.1	4891	11.0	-67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<0.002	--	--	--	--	<1.0	70	--	--	--
	11/16/12	1.96	6.58	21.8	5,641	120	-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0161**	<0.002	--	--	--	--	<1.0	**76**	--	--	--
	3/22/13	1.94	6.82	21.6	3,031	10	-80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<0.002	--	--	--	--	<1.0	**61**	--	--	--
	5/10/13	0.47	6.75	21.2	5,239	22	-38	--	**1000**	--	--	--	**260**	**1.1**	--	<0.20	<0.20	**1350**	**15900**	**--**	**2.21**	**0.633**	**1.6**	**2.9**	<0.0100	<0.002	**870**	**1600**	**2.04**	**97**	<1.0	**48**	**750**	**4250**	--
	7/11/13	0.99	7.10	21.7	5,629	35	-75	--	**1040**	--	--	--	**370**	**0.26**	--	--	--	**1650**	**9300**	**--**	**2.11**	**0.0435**	**1.53**	**2.7**	<0.01	<0.002	**694**	**1300**	**2.54**	**100**	--	--	**600**	**4010**	--
	8/16/13	0.60	6.82	22.4	5,004	25	-57.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/14	1.39	6.89	21.7	5,207	19	-103.2	--	**1080**	--	--	--	**310**	**0.41**	--	--	--	**1690**	**8160**	**--**	**2.98**	**0.0650**	**1.63**	**2.4**	<0.01	<0.002	**1000**	**1600**	<1	**97**	--	--	**680**	**3770**	--
	5/16/14	0.56	6.78	21.5	5,399	83	-91.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/8/14	1.05	6.86	21.8	5,440	54	-10.8	--	**1020**	--	--	--	**310**	--	--	--	--	**2100**	**5100**	**--**	**1.56**	**0.0807**	**1.66**	**2.1**	<0.01	<0.002	**790**	**1900**	<1	--	--	--	**470**	**4640**	--
MW-5	10/8/08	2.07	7.92	24.70	2.82	233	-91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	--	--	--	--	--
	3/19/09	0.00	7.15	21.80	208	16.5	-138	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/5/09	1.59	7.92	21.60	4,990	7.8	-249	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/6/09	7.17	7.95	23.00	5,000	196	-250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.4**	**67**	**437**	**1600**	**40**
post-purge	12/1/09	--	--	--	--	--	--	--	**1100**	<2.0	**1300**	<2.0	**51.2**	--	**0.12**	**1.27**	<0.500	<500	--	**360**	**0.393**	--	--	--	--	--	--	**648**	**222**	**18**	--	--	--	--	--
	4/30/10	15.81	8.49	19.30	2,394	36.1	-190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/12	0.61	6.80	19.90	4,195	8.0	-142	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<1.0	--	--	--	--	**2.9**	**47**	--	--	--
	11/16/12	1.15	6.80	22.9	3,610	8	86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0248**	<0.001	--	--	--	--	**9**	**63**	--	--	--
	3/22/13	0.22	7.18	21.4	1,346	6	-179.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<0.001	--	--	--	--	**8.6**	**45**	--	--	--
	5/10/13	0.31	7.11	21.6	3,185	10	-93.7	--	**840**	--	--	--	**70**	**0.9**	--	<0.10	<0.10	**435**	**10600**	**--**	--	<0.0100	**1.24**	**1.1**	**0.0102**	<0.001	**482**	**570**	**71.5**	**76**	**5.3**	**71**	**190**	**2080**	--
	7/11/13	0.23	7.27	22.0	3,172	11	-53	--	**672**	--	--	--	**100**	<0.20	--	--	--	**387**	**7180**	**--**	<0.1	<0.0100	**1.14**	**0.83**	<0.0100	<0.001	**397**	**660**	**122**	**66**	**--**	**--**	**160**	**1960**	--
	8/16/13	0.29	7.10	22.7	2,845	9	-83.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/14	0.32	7.33	22.0	2,626	3	-255.2	--	**632**	--	--	--	**76**	<0.2	--	--	--	**349**	**404**	--	<0.1	<0.01	**0.988**	**0.77**	<0.01	<0.001	**384**	**690**	**86.3**	**60**	--	--	**100**	**1780**	--
	5/16/14	0.23	7.22	22.4	2,895	12	-173.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/8/14	0.81	7.17	23.9	3,755	240	65.3	--	**770**	--	--	--	**110**	--	--	--	--	**364**	**861**	**--**	<0.1	**0.0633**	**1.36**	**1.4**	<0.01	<0.001	**491**	**740**	**69.4**	**69**	--	--	**220**	**2300**	--

Table 5
Remediation Testing Parameters
Marina Del Rey Sheriff's Station, 13851 Fiji Way, Marina Del Rey, California

Field Parameters									Laboratory Parameters																										
Sample ID	Sample Date	DO (mg/L)	pH	Temperature (°C)	Conductivity (µS/cm)	Turbidity (ntu)	ORP (mV)	Persulfate (g/L)	Alkalinity as $CaCO_3$ (mg/L)	Carbonate Alkalinity as $CaCO_3$ (mg/L)	Bicarbonate Alkalinity as HCO_3 (mg/L)	Hydroxide Alkalinity as $CaCO_3$ (mg/L)	Carbon Dioxide (CO_2) (mg/L)	Formaldehyde(CH_2O) (mg/L)	Salinity (salinity units)	Nitrate as NO_3 (mg/L)	Nitrite as NO_2 (mg/L)	Mn (µg/L)	Fe(t) (µg/L)	Fe^{3+} (µg/L)	Fe^{2+} (mg/L)	As (mg/L)	B (mg/L)	Br (mg/L)	Cr(t) (mg/L)	Cr(VI) (mg/L)	Na (mg/L)	Sulfate as SO_4 (mg/L)	Methane (CH_4) (µg/L)	TOC (mg/L)	BOD (mg/L)	COD (mg/L)	Cl (mg/L)	TDS (mg/L)	TSS (mg/L)
MW-6	10/8/08	1.78	8.00	23.40	1490	652	-183	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/19/09	0.00	7.10	22.40	257	16.5	-236	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/5/09	43.30	7.87	22.30	2,447	22.6	-205	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/6/09	7.43	7.99	24.70	2,013	8.9	-200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18	28	149	5,500	20
post-purge	12/1/09	--	--	--	--	--	--	--	500	<2.0	610	<2.0	42.7	--	0.053	1.02	<0.500	<500	--	230	0.269	--	--	--	--	--	--	336	175	4.2	--	--	--	--	--
	4/30/10	8.88	7.85	24.10	1,807	8.7	-194	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/12	0.31	7.38	20.9	4,021	7	-132	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0131	<1.0	--	--	--	2.7	39	--	--	--	--
	11/16/12	1.16	7.48	24.1	4,650	11	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0126	<0.001	--	--	--	<1.0	99	--	--	--	--
	3/22/13	0.25	7.24	21.7	4,725	39	-151	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<0.001	--	--	--	2.3	42	--	--	--	--
	5/10/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/11/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/16/12	0.42	7.34	23.70	4,412	23	-163.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/14	0.30	7.03	22.7	5,871	79	-129.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	10/8/08	5.37	6.87	19.80	1,180	0	-124	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/19/09	0.00	7.36	19.60	365	23.3	-280	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/5/09	3.91	7.95	19.70	4,961	14.8	-180	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/6/09	2.29	8.13	23.50	5,626	3.1	-201	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.2	87	878	2,100	20
post-purge	12/1/09	--	--	--	--	--	--	--	1,200	<2.0	1,500	<2.0	76.8	--	0.15	2.00	<0.500	<500	--	310	0.342	--	--	--	--	--	--	347	282	27	--	--	--	--	--
	4/30/10	17.21	8.90	19.00	5,199	29.1	-79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/12	1.07	7.89	19.4	4,467	4	-83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<2.0	--	--	--	7.6	110	--	--	--	--
	11/16/12	1.52	7.60	21.5	4,096	6	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<0.005	--	--	--	3.6	91	--	--	--	--
	3/22/13	0.30	7.61	20.7	2,787	4	-82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<0.010	--	--	--	7	93	--	--	--	--
	5/10/13	0.65	7.64	19.9	4,533	7	-25	--	1,230	--	--	--	29	1.5	--	<1.0	<1.0	201	799	--	0.116	<0.0100	2.72	3.3	<0.0100	<0.010	1,030	150	62.6	120	6.9	95	750	2,830	--
	7/11/13	0.28	7.83	21.7	4,523	5	-1	--	1,230	--	--	--	59	0.55	--	--	--	18	390	--	<0.100	<0.0100	2.67	3.1	<0.0100	<0.005	888	150	75.1	120	--	--	700	2,700	--
	8/16/13	0.36	7.69	21.2	4,573	6	-25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/14	0.59	7.71	19.9	4,553	15	-71	--	1,260	--	--	--	68	0.51	--	--	--	17.8	379	--	0.104	<0.01	2.92	3.4	<0.01	<0.002	1130	120	42.1	130	--	--	810	2,820	--
	5/16/14	0.30	7.63	20.7	4,876	5	-102	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	10/8/08	2.24	7.27	20.70	2,600	71.2	-250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/19/09	0.00	6.78	19.20	2,700	101	-247	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/5/09	3.08	7.56	19.90	33,697	138	-323	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/6/09	3.00	7.58	21.90	34,245	0.7	-298	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.6	1,300	12,600	6,600	<2.0
post-purge	12/1/09	--	--	--	--	--	--	--	740	<2.0	900	<2.0	76.8	--	1.3	<0.500	<0.500	<500	--	1,100	0.991	--	--	--	--	--	--	1,900	85.0	3.7	--	--	--	--	--
	4/30/10	20.13	8.39	19.20	32,346	39.6	-206	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/12	0.83	7.60	19.8	31,410	9	-271	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<0.010	--	--	--	18	230	--	--	--	--
	11/16/12	1.75	7.21	21.3	31,160	10	-86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<0.010	--	--	--	2.2	200	--	--	--	--
	3/22/13	0.79	7.39	20.3	30,859	12	-303	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0100	<0.010	--	--	--	7.4	280	--	--	--	--
	5/10/13	0.47	7.26	19.8	31,400	12	-255	--	530	--	--	--	86	0.88	--	<1.0	<1.0	22.7	1,870	--	0.185	<0.0100	4.24	47	<0.0100	<0.010	7,880	--	12.4	46	<1.0	240	13,000	26,600	--
	7/11/13	0.11	7.60	21.0	30,410	6	-238	--	730	--	--	--	230	0.25	--	--	--	327	1,480	--	0.391	<0.0100	4.08	42	<0.0100	<0.010	7,380	2,800	29.7	71	--	--	13,000	25,200	--
	8/16/13	0.20	0.20	21.0	31,075	13	-280	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/14	0.97	7.17	20.5	31,795	23	-250	--	975	--	--	--	140	<0.2	--	--	--	112	391	--	<0.1	0.0234	3.94	41	<0.01	<0.010	6380	1,800	18.5	79	--	--	11,000	21,000	--
	5/16/14	0.26	7.13	21.3	34,913	33	-280	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
µg/L = micrograms per liter
< = not detected above the laboratory reporting limit.
-- = no data available; not applicable
Brackish groundwater = 1,000 mg/L < TDS < 10,000 mg/L

TIC = total inorganic carbons
TOC = total organic carbons
HPC = heterotrophic plate count
Fe^{2+} = ferrous iron
Fe^{3+} = ferric iron (oxide)

BOD = biochemical oxygen demand
COD = chemical oxygen demand
TDS = total dissolved solids
TSS = total suspended solids

Table 6
iSOC® Remediation Summary
Marina Del Rey Sheriff's Station, 13851 Fiji Way, Marina Del Rey, California

Field Parameters						
Well ID	**Date**	**DO (mg/L)**	**% Saturation**	**Water Temperature °C**	**Oxygen Tank Pressure psi**	**iSOC Diffuser Pressure psi**
MW-1	6/11/10	3.0	33	18.9	1950	60
	6/18/10	--	--	--	1800	60
	6/21/10	--	--	--	1800	60
	7/6/10	38.7	424	19.4	1400	59
	7/27/10	--	--	--	950	58
	7/30/10	39.4	437	20.2	900	60
	8/13/10	--	--	--	500	--
	8/30/10	--	--	--	0	57
	8/31/10	0.1	1	19.8	1,950	55
	9/10/10				1,700	55
	9/23/10	30.1	340	20.7	1,400	53
	10/21/10	26.7	286	19.1	--	--
MW-2	6/2/10	20.8	222	17.3	1200	55
	6/11/10	20.6	226	19.2	900	60
	7/6/10	0.3	3	18.7	--	--
	8/20/10	0.1	1	19.6	--	--
	8/30/10	--	--	--	1,600	54
	8/31/10	27.6	306	19.8	1,600	53
	9/10/10				1,300	53
	9/23/10	35.1	379	19.0	950	55
	10/21/10	27.4	298	19.3	--	--
MW-3	6/11/10	1.6	18	19.6	--	--
	6/18/10	--	--	--	1750	60
	6/21/10	--	--	--	1850	60
	7/6/10	35.6	395	20.1	1200	55
	7/27/10	--	--	--	250	55
	7/30/10	38.5	435	20.2	0 / 2100	55
	8/13/10	--	--	--	1,600	--
	8/30/10	--	--	--	1,000	55
	8/31/10	32.5	372	21.3	900	55
	9/10/10				500	55
	9/23/10	28.5	330	22.6	2,100	54
	10/21/10	28.8	316	20.2	--	--
MW-4	7/6/10	0.3	3	21.2	--	--
	8/31/10	0.5	6	23.0	--	--
	9/23/10	2.0	23	22.9	--	--
	10/21/10	2.4	27	21.6	--	--
MW-6	7/6/10	0.2	2	21.6	--	--
	8/31/10	0.5	6	23.0	--	--
	9/23/10	0.2	2	24.3	--	--
	10/21/10	1.0	11	22.4	--	--
MW-7	6/2/10	31.9	350		900	55
	6/11/10	35.2	390	20.1	600	57
	6/18/10	--	--	--	200	60
	6/21/10	--	--	--	1950	59
	7/6/10	42.7	470	19.6	1400	55
	7/27/10	--	--	--	650	58.0
	7/30/10	41.2	471	21.8	500	60
	8/13/10	--	--	--	0	--
	10/21/10	3.5	35	20.7	--	--
MW-8	6/2/10	25.4	280	20.0	700	55
	6/11/10	30.7	350	20.3	400	55
	6/18/10	--	--	--	200	55
	6/21/10	--	--	--	2000	59
	7/6/10	28.1	309	19.7	1700	53
	7/27/10	--	--	--	1,250	45
	7/30/10	34.2	390	21.6	1,200	55
	8/13/10	--	--	--	800	--
	8/20/10	--	--	--	600	55
	8/30/10	--	--	--	400	55
	8/31/10	21.1	238	20.7	300	55
	10/21/10	6.3	72	20.9	--	--

Notes: mg/L = micrograms per liter
-- = data not collected
iSOC = in-situ submerged oxygen curtain

APPENDIX A

References

References

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APPENDIX B

Groundwater Sampling Logs

WELL GAUGING DATA

Project # 141008-TR1 Date 10-8-14 Client ~~SES~~ TG SLR

Site 13851 Fiji Way, Marina Del Rey CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	0835	2					6.21	19.61		Tubing
MW-2	0753	2					7.47	19.29		Tubing
MW-3	0828	2					7.85	19.00		Tubing
MW-4	0945	2					8.43	24.33		Tubing
MW-5	0900	2					9.44	24.47		Tubing
MW-6	0745	2					7.60	24.35		Tubing
MW-7	0815	2					7.75	24.53		Tubing
MW-8	0820	2					9.23	24.80		Tubing

WELL MONITORING DATA SHEET

Project #: 141008-TK1	Site: SLR TESES @ Marina Del Rey
Sampler: TK	Gauging Date: 10-8-14
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.61	Depth to Water (DTW): 6.21
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	DO Meter Type YSI Pro Plus
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.89	

Purge Method:
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- 2" Redi flo pump
- Extraction Pump
- Other_____

Sampling Method:
- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other:

Flow Rate= 0.5gpm
Start Purge Date= 10-8-14 1324

2.14 (Gals.) X 3 = 6.43 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
(2")	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
1318	77.4	13.28	116.232	146	3.56	187.1	2.25	
1322	77.9	13.33	119.399	138	4.57	195.9	4.50	
1326	77.8	13.39	120.416	132	4.22	193.4	6.50	

Did well dewater? Yes (No) Gallons actually evacuated: 6.5

Sampling Date: 10-8-14 Sampling Time: 1340 Depth to Water: 8.85

Sample I.D.: MW-1 Laboratory: Calscience

Analyzed for: see COC Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

FB I.D. (if applicable): @ Time Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 141008-TK1	Site: ~~SES~~ STP @ Marina Del Rey
Sampler: TK	Gauging Date: 10-8-14
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.29	Depth to Water (DTW): 7.47
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	DO Meter Type YSI Pro Plus
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.83	

Purge Method:
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- 2" Redi flo pump
- Extraction Pump
- Other ____

Sampling Method:
- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other: ____

Flow Rate= 0.5 gpm

Start Purge Date= 10-8-14 11.82

1.89 (Gals.) X 3 = 5.67 Gals.
Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
(2")	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
1140	79.6	7.47	10636	64.9	0.33	-100.3	2.0	
1145	75.4	7.27	11798	63.2	0.45	-97.5	4.0	
1148	74.2	7.33	12999	57.7	0.31	-106.6	6.0	

Did well dewater? Yes (No) Gallons actually evacuated: 6

Sampling Date: 10-8-14 Sampling Time: 1200 Depth to Water: 9.80

Sample I.D.: MW-2 Laboratory: Calscience

Analyzed for: See COC Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

FB I.D. (if applicable): @ Time Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 141008-TK1	Site: ~~TPSES~~ SLP @ Marina Del Rey
Sampler: TK	Gauging Date: 10-8-14
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.00	Depth to Water (DTW): 7.85
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	DO Meter Type YSI Pro Plus
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.08	

Purge Method:
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- (2" Rediflo pump)
- Extraction Pump
- Other ____

Sampling Method:
- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other: ____

Flow Rate= 1gpm

Start Purge Date= ____ 11.15

1.79 (Gals.) X 3 = 5.35 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
(2")	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
1230	76.6	7.21	27.224	>1000	0.82	-22.4	2.0	Tagged bottom
1232	74.3	7.22	28.975	>1000	0.64	-27.9	4.0	Odor
1234	74.1	7.27	30.216	>1000	0.53	-30.1	6.0	

Did well dewater? Yes (No) Gallons actually evacuated: 6.0

Sampling Date: 10-8-14 Sampling Time: 1250 Depth to Water: 9.89

Sample I.D.: MW-3 Laboratory: Calscience

Analyzed for: See COC Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

FB I.D. (if applicable): @ Time Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 141008-TK1	Site: ~~SES~~ SLR @ Marina Del Rey
Sampler: TK	Gauging Date: 10-8-14
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 24.33	Depth to Water (DTW): 8.43
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	DO Meter Type YSI Pro Plus
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.61	

Purge Method:
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- 2" Rediflo pump
- Extraction Pump
- Other_____

Sampling Method:
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other:_____

Flow Rate= 1 gpm

Start Purge Date= 10/8/14 15.9

2.54 (Gals.) X 3 = 7.63 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
(2")	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
0957	76.2	6.93	5460	14.4	1.05	-34.3	2.6	
0959	75.3	6.87	5386	57.2	0.65	-18.3	5.3	
1002	75.0	6.86	5440	53.8	1.05	-10.8	8.0	

Did well dewater? Yes (No) Gallons actually evacuated: 8

Sampling Date: 10-8-14 Sampling Time: 1010 Depth to Water: 10.75

Sample I.D.: MW-4 Laboratory: Calscience

Analyzed for: See COC Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

FB I.D. (if applicable): @ Time Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 141008-TK1	Site: ~~USE~~ SLR @ Marina Del Rey
Sampler: TK	Gauging Date: 10-8-14
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 24.47	Depth to Water (DTW): 9.44
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	DO Meter Type YSI Pro Plus
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.45	

Purge Method:
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- 2" Rediflo pump
- Extraction Pump
- Other ____

Sampling Method:
- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other: ____

Flow Rate= 1gpm

Start Purge Date= 0910 15.03

2.4 (Gals.) X 3 = 7.2 Gals.
Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
(2")	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
0912	76.0	6.83	3561	103.0	0.79	100.7	2.5	
0915	74.9	7.04	3798	198.0	0.83	74.2	5.0	
0918	75.2	7.16	3744	242.0	0.72	66.1	7.5	
0921	75.0	7.17	3755	240.0	0.81	65.3	10.0	

Did well dewater? Yes (No) Gallons actually evacuated: 10.0

Sampling Date: 10-8-14 Sampling Time: 0930 Depth to Water: 12.01

Sample I.D.: MW-5 Laboratory: Calscience

Analyzed for: See COC Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

FB I.D. (if applicable): @ Time Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 141008-TK1	Site: ~~SES~~ STLR @ Marina Del Rey
Sampler: TK	Gauging Date: 10-8-14
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 24.35	Depth to Water (DTW): 7.60
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	DO Meter Type YSI Pro Plus
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.95	

Purge Method:
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- 2" Rediflo pump
- Extraction Pump
- Other_____

Sampling Method:
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other:

Flow Rate= 0.5 gpm

Start Purge Date= 10/8/14 16.75

2.68 (Gals.) X 3 = 8.04 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
(2")	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
1055	78.4	7.25	5260	27.9	1.01	-22.7	2.7	
1100	80.5	7.12	5207	24.3	0.55	-32.3	5.5	
1105	81.2	7.11	5237	20.1	0.48	-37.2	8.5	

Did well dewater? Yes (No) Gallons actually evacuated: 8.5

Sampling Date: 10-8-14 Sampling Time: 1110 Depth to Water: 8.57

Sample I.D.: MW-6 Laboratory: Calscience

Analyzed for: See COC Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

FB I.D. (if applicable): @ Time Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 141008-TK1	Site: SLF MW-5 @ Marina Del Rey
Sampler: TK	Gauging Date: 10-8-14
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 24.53	Depth to Water (DTW): 7.75
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	DO Meter Type YSI Pro Plus
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.11	

Purge Method:
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- 2" Rediflo pump
- Extraction Pump
- Other

Sampling Method:
- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other:

Flow Rate= 0.5 gpm

Start Purge Date= 10-8-14 16.78

2.69 (Gals.) X 3 = 8.06 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
(2")	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
1521	73.0	7.90	4779	18.0	1.85	36.1	2.75	
1526	74.0	7.78	4750	15.8	1.95	22.1	5.50	
1531	74.5	7.72	4778	14.0	1.83	20.4	8.10	

Did well dewater? Yes (No) Gallons actually evacuated: 8.1

Sampling Date: 10-8-14 Sampling Time: 1540 Depth to Water: 10.92

Sample I.D.: MW-7 Laboratory: Calscience

Analyzed for: see COC Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

FB I.D. (if applicable): @ Time Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 141008-TK1	Site: ~~SES~~ SLR @ Marina Del Rey
Sampler: TK	Gauging Date: 10-8-14
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 24.80	Depth to Water (DTW): 9.23
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	DO Meter Type YSI Pro Plus
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.35	

Purge Method:
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- 2" Rediflo pump
- Extraction Pump
- Other

Sampling Method:
- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other:

Flow Rate= 1 gpm

Start Purge Date= 10-8-14 15:57

2.49 (Gals.) X 3 = 7.47 Gals.
Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
(2")	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
1428	75.9	8.12	32.378	52.9	2.16	-248.6	2.5	
1432	74.7	7.90	31.653	48.0	2.10	-232.1	5.0	
1436	74.5	7.92	32.021	44.6	2.07	-260.7	(7.5)	

Did well dewater? Yes (No) Gallons actually evacuated: 7.5

Sampling Date: 10-8-14 Sampling Time: 1450 Depth to Water: 12.01

Sample I.D.: MW-8 Laboratory: Calscience

Analyzed for: See COC Other:

MB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

MB I.D. (if applicable): @ Time Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

COC 1 of 1

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY

CLIENT	SLR
SITE	Marina Del Rey Sheriff Station
	Marina Del Rey, CA

Send Laboratory Data and Invoice to:

John Bennett, P.G.
SLR.
17701 Cowan, Suite 210
Irvine, CA 92614
Main: 949-553-8417 x109
jbennett@slrconsulting.com

CONDUCT ANALYSIS TO DETECT

SAMPLE I.D.	DATE	TIME	MATRIX W= Water	#	CONTAINERS Preservation	CONTAINERS Type	BTEX + Oxys, Acetone, Ethanol (EPA 8260)	TPH-g (EPA 8015)	Methane gas (RSK 175 M)	TOC (SM5310D)	Iron ferrous (SM 3500)	Carbon Dioxide (SM 4500)	Formaldehyde (ASTM 6303-98)	TDS (SM2540C)	Alkalinity (SM2320B)	Hexavalent Cr (EPA 7199)	Sulfate, Bromide, Chloride (EPA 300.0)	Total Cr, Mn, Fe,As, B, Na (EPA 6010)	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	10/8/14	1340	W	16	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				
MW-2		1200	W	16	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				
MW-3		1250	W	6	HCL	VOAs	X	X														
MW-4		1010 ~~0930~~	W	19 ~~16~~	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				
MW-5		0930	W	16	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				
MW-6		1110	W	6	HCL	VOAs	X	X														
MW-7		1540	W	16	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				
MW-8	↓	1150	W	16	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				

SAMPLING COMPLETED	DATE 10/8/14	TIME	SAMPLING PERFORMED BY Tyle-Keene	RESULTS NEEDED NO LATER THAN	As Contracted
RELEASED BY [signature]	TIME	→ [signature] 10/8/14	DATE 10/8/14	TIME 1745	
RELEASED BY [signature]	TIME	→ [signature] ECL	DATE 10/8/14	TIME 19:14	
RELEASED BY	TIME	→	DATE	TIME	
SHIPPED VIA	TIME SENT				

WELLHEAD INSPECTION CHECKLIST

Client ~~SES~~ TC SLR Date 10-8-14

Site Address 13851 Fiji Way, Marina Del Rey CA

Job Number 141008-TR1 Technician TC

Well ID	Well Inspected - No Corrective Action Required	WELL IS SECURABLE BY DESIGN (12"or less)	WELL IS CLEARLY MARKED WITH THE WORDS "MONITORING WELL" (12"or less)	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1	X	X	X							
MW-2	X	X	X							
MW-3	X	X	X	X						
MW-4	X	X	X							
MW-5	X	X	X							
MW-6	X	X	X	X						
MW-7	X	X	X							
MW-8	X	X	X							

NOTES:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 13851 Fiji Way, Marina Del Rey				PROJECT NUMBER 141008-TK1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI Pro plus		10-8-17 0755	pH 7 10 4	6.98 9.82 3.88	✓ ✓ ✓	24.9°C	TK
↓		↓	3900 100 % 231	3832 115.6 % 896.7 mV	✓ ✓ ✓	25.3°C	TK

APPENDIX C

Laboratory Reports

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WORK ORDER NUMBER: 14-10-0689

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: SLR International Corporation

Client Project Name: Marina Del Rey Sheriff Station

Attention: John Bennett
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Approved for release on 10/20/2014 by:
Virendra Patel
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: Marina Del Rey Sheriff Station
Work Order Number: 14-10-0689

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Work Order Narrative

Work Order: 14-10-0689 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/08/14. They were assigned to Work Order 14-10-0689.

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

Holding Times:

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

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

Quality Control:

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

Additional Comments:

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

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

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

Subcontractor Information:

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

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Sample Summary

Client:	SLR International Corporation 17701 Cowan, Suite 210 Irvine, CA 92614-6009	Work Order:	14-10-0689
		Project Name:	Marina Del Rey Sheriff Station
		PO Number:	
		Date/Time Received:	10/08/14 19:14
		Number of Containers:	111
Attn:	John Bennett		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-1	14-10-0689-1	10/08/14 13:40	16	Aqueous
MW-2	14-10-0689-2	10/08/14 12:00	16	Aqueous
MW-3	14-10-0689-3	10/08/14 12:50	6	Aqueous
MW-4	14-10-0689-4	10/08/14 10:10	16	Aqueous
MW-5	14-10-0689-5	10/08/14 09:30	19	Aqueous
MW-6	14-10-0689-6	10/08/14 11:10	6	Aqueous
MW-7	14-10-0689-7	10/08/14 15:40	16	Aqueous
MW-8	14-10-0689-8	10/08/14 14:50	16	Aqueous

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Detections Summary

Client: SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Work Order: 14-10-0689
Project Name: Marina Del Rey Sheriff Station
Received: 10/08/14

Attn: John Bennett

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-1 (14-10-0689-1)						
Formaldehyde	0.43		0.20	mg/L	ASTM D6303-98	N/A
Chloride	120		100	mg/L	EPA 300.0	N/A
Sulfate	57000		2000	mg/L	EPA 300.0	N/A
Arsenic	0.885		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.597		0.200	mg/L	EPA 6010B	EPA 3010A Total
Iron	2.80		0.100	mg/L	EPA 6010B	EPA 3010A Total
Manganese	0.0751		0.00500	mg/L	EPA 6010B	EPA 3010A Total
Sodium	77100		500	mg/L	EPA 6010B	EPA 3010A Total
Boron	2.45		0.0200	mg/L	EPA 6010B	EPA 3010A Total
Chromium, Hexavalent	590		50	ug/L	EPA 7199	N/A
TPH as Gasoline	210	HD	100	ug/L	EPA 8015B (M)	EPA 5030C
Acetone	540		100	ug/L	EPA 8260B	EPA 5030C
Benzene	25		2.5	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	210		5.0	ug/L	EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	450		50	ug/L	EPA 8260B	EPA 5030C
Methane	9.76		1.00	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	20600		100	mg/L	SM 2320B	N/A
Solids, Total Dissolved	92900		100	mg/L	SM 2540 C	N/A
Iron (II)	0.138		0.100	mg/L	SM 3500-FeB	N/A
Carbon, Total Organic	1100		50	mg/L	SM 5310 D	N/A
MW-2 (14-10-0689-2)						
Formaldehyde	0.33		0.20	mg/L	ASTM D6303-98	N/A
Chloride	180		5.0	mg/L	EPA 300.0	N/A
Sulfate	9100		200	mg/L	EPA 300.0	N/A
Arsenic	0.0347		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Iron	15.1		0.100	mg/L	EPA 6010B	EPA 3010A Total
Manganese	1.27		0.00500	mg/L	EPA 6010B	EPA 3010A Total
Sodium	4350		50.0	mg/L	EPA 6010B	EPA 3010A Total
Boron	1.11		0.0200	mg/L	EPA 6010B	EPA 3010A Total
Methyl-t-Butyl Ether (MTBE)	3.2		1.0	ug/L	EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	210		10	ug/L	EPA 8260B	EPA 5030C
Methane	27.2		1.00	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	1340		10.0	mg/L	SM 2320B	N/A
Solids, Total Dissolved	15700		100	mg/L	SM 2540 C	N/A
Iron (II)	0.475		0.100	mg/L	SM 3500-FeB	N/A
Carbon, Total Organic	140		10	mg/L	SM 5310 D	N/A
Carbon Dioxide	83		1.0	mg/L	SM4500-CO2D	N/A

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* MDL is shown

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Detections Summary

Client:	SLR International Corporation	Work Order:	14-10-0689
	17701 Cowan, Suite 210	Project Name:	Marina Del Rey Sheriff Station
	Irvine, CA 92614-6009	Received:	10/08/14
Attn:	John Bennett		Page 2 of 4

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-3 (14-10-0689-3)						
TPH as Gasoline	2200		100	ug/L	EPA 8015B (M)	EPA 5030C
Benzene	50		1.0	ug/L	EPA 8260B	EPA 5030C
Ethylbenzene	83		2.0	ug/L	EPA 8260B	EPA 5030C
p/m-Xylene	2.1		2.0	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	140		2.0	ug/L	EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	830		20	ug/L	EPA 8260B	EPA 5030C
Diisopropyl Ether (DIPE)	4.8		4.0	ug/L	EPA 8260B	EPA 5030C
MW-4 (14-10-0689-4)						
Chloride	470		40	mg/L	EPA 300.0	N/A
Bromide	2.1		0.20	mg/L	EPA 300.0	N/A
Sulfate	1900		40	mg/L	EPA 300.0	N/A
Arsenic	0.0807		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Iron	5.07		0.100	mg/L	EPA 6010B	EPA 3010A Total
Manganese	2.10		0.00500	mg/L	EPA 6010B	EPA 3010A Total
Sodium	790		0.500	mg/L	EPA 6010B	EPA 3010A Total
Boron	1.66		0.0200	mg/L	EPA 6010B	EPA 3010A Total
Methyl-t-Butyl Ether (MTBE)	1.7		1.0	ug/L	EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	17		10	ug/L	EPA 8260B	EPA 5030C
Alkalinity, Total (as CaCO3)	1020		10.0	mg/L	SM 2320B	N/A
Solids, Total Dissolved	4640		10.0	mg/L	SM 2540 C	N/A
Iron (II)	1.56		0.100	mg/L	SM 3500-FeB	N/A
Carbon, Total Organic	99		2.5	mg/L	SM 5310 D	N/A
Carbon Dioxide	310		5.0	mg/L	SM4500-CO2D	N/A

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Detections Summary

Client:	SLR International Corporation	Work Order:	14-10-0689
	17701 Cowan, Suite 210	Project Name:	Marina Del Rey Sheriff Station
	Irvine, CA 92614-6009	Received:	10/08/14
Attn:	John Bennett		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-5 (14-10-0689-5)						
Chloride	220		20	mg/L	EPA 300.0	N/A
Bromide	1.4		0.10	mg/L	EPA 300.0	N/A
Sulfate	740		20	mg/L	EPA 300.0	N/A
Arsenic	0.0633		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Iron	0.861		0.100	mg/L	EPA 6010B	EPA 3010A Total
Manganese	0.364		0.00500	mg/L	EPA 6010B	EPA 3010A Total
Sodium	491		0.500	mg/L	EPA 6010B	EPA 3010A Total
Boron	1.36		0.0200	mg/L	EPA 6010B	EPA 3010A Total
Methyl-t-Butyl Ether (MTBE)	1.1		1.0	ug/L	EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	13		10	ug/L	EPA 8260B	EPA 5030C
Methane	69.4		1.00	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	770		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	2300		10.0	mg/L	SM 2540 C	N/A
Carbon, Total Organic	69		2.5	mg/L	SM 5310 D	N/A
Carbon Dioxide	110		5.0	mg/L	SM4500-CO2D	N/A
MW-6 (14-10-0689-6)						
Methyl-t-Butyl Ether (MTBE)	1.8		1.0	ug/L	EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	21		10	ug/L	EPA 8260B	EPA 5030C
MW-7 (14-10-0689-7)						
Formaldehyde	0.66		0.20	mg/L	ASTM D6303-98	N/A
Chloride	770		10	mg/L	EPA 300.0	N/A
Bromide	3.5		1.0	mg/L	EPA 300.0	N/A
Sulfate	140		10	mg/L	EPA 300.0	N/A
Arsenic	0.0183		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Iron	1.65		0.100	mg/L	EPA 6010B	EPA 3010A Total
Manganese	0.0312		0.00500	mg/L	EPA 6010B	EPA 3010A Total
Sodium	1130		50.0	mg/L	EPA 6010B	EPA 3010A Total
Boron	3.25		0.0200	mg/L	EPA 6010B	EPA 3010A Total
Methyl-t-Butyl Ether (MTBE)	20		1.0	ug/L	EPA 8260B	EPA 5030C
Methane	29.1		1.00	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	1260		10.0	mg/L	SM 2320B	N/A
Solids, Total Dissolved	3010		10.0	mg/L	SM 2540 C	N/A
Iron (II)	0.180		0.100	mg/L	SM 3500-FeB	N/A
Carbon, Total Organic	130		10	mg/L	SM 5310 D	N/A
Carbon Dioxide	55		1.0	mg/L	SM4500-CO2D	N/A

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* MDL is shown

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Detections Summary

Client:	SLR International Corporation	Work Order:	14-10-0689
	17701 Cowan, Suite 210	Project Name:	Marina Del Rey Sheriff Station
	Irvine, CA 92614-6009	Received:	10/08/14
Attn:	John Bennett		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-8 (14-10-0689-8)						
Formaldehyde	0.28		0.20	mg/L	ASTM D6303-98	N/A
Chloride	9200		200	mg/L	EPA 300.0	N/A
Bromide	34		1.0	mg/L	EPA 300.0	N/A
Sulfate	1800		200	mg/L	EPA 300.0	N/A
Arsenic	0.0242		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Iron	6.45		0.100	mg/L	EPA 6010B	EPA 3010A Total
Manganese	0.183		0.00500	mg/L	EPA 6010B	EPA 3010A Total
Sodium	6340		50.0	mg/L	EPA 6010B	EPA 3010A Total
Boron	5.39		0.0200	mg/L	EPA 6010B	EPA 3010A Total
TPH as Gasoline	350	HD	100	ug/L	EPA 8015B (M)	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	620		10	ug/L	EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	54		10	ug/L	EPA 8260B	EPA 5030C
Diisopropyl Ether (DIPE)	93		2.0	ug/L	EPA 8260B	EPA 5030C
Methane	6.19		1.00	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	1240		10.0	mg/L	SM 2320B	N/A
Solids, Total Dissolved	19800		100	mg/L	SM 2540 C	N/A
Iron (II)	0.174		0.100	mg/L	SM 3500-FeB	N/A
Carbon, Total Organic	120		10	mg/L	SM 5310 D	N/A
Carbon Dioxide	99		1.0	mg/L	SM4500-CO2D	N/A

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: RSK-175M
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**14-10-0689-1-F**	**10/08/14 13:40**	**Aqueous**	**GC 61**	**N/A**	**10/13/14 13:23**	**141013L02**

Parameter	Result	RL	DF	Qualifiers
Methane	9.76	1.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**14-10-0689-2-F**	**10/08/14 12:00**	**Aqueous**	**GC 61**	**N/A**	**10/13/14 13:46**	**141013L02**

Parameter	Result	RL	DF	Qualifiers
Methane	27.2	1.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**14-10-0689-4-F**	**10/08/14 10:10**	**Aqueous**	**GC 61**	**N/A**	**10/13/14 14:10**	**141013L02**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	1.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**14-10-0689-5-F**	**10/08/14 09:30**	**Aqueous**	**GC 61**	**N/A**	**10/13/14 14:33**	**141013L02**

Parameter	Result	RL	DF	Qualifiers
Methane	69.4	1.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**14-10-0689-7-F**	**10/08/14 15:40**	**Aqueous**	**GC 61**	**N/A**	**10/13/14 14:57**	**141013L02**

Parameter	Result	RL	DF	Qualifiers
Methane	29.1	1.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**14-10-0689-8-F**	**10/08/14 14:50**	**Aqueous**	**GC 61**	**N/A**	**10/13/14 15:20**	**141013L02**

Parameter	Result	RL	DF	Qualifiers
Methane	6.19	1.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-663-2262**	**N/A**	**Aqueous**	**GC 61**	**N/A**	**10/13/14 13:00**	**141013L02**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	1.00	1.00	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**14-10-0689-1-D**	**10/08/14 13:40**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 21:02**	**141009L020**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	210	100	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**14-10-0689-2-D**	**10/08/14 12:00**	**Aqueous**	**GC 56**	**10/09/14**	**10/10/14 01:45**	**141009L020**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	108	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	**14-10-0689-3-D**	**10/08/14 12:50**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 21:33**	**141009L020**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	2200	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	167	38-134	2,7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**14-10-0689-4-D**	**10/08/14 10:10**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 22:05**	**141009L020**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	107	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**14-10-0689-5-D**	**10/08/14 09:30**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 22:36**	**141009L020**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	108	38-134	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**14-10-0689-6-D**	**10/08/14 11:10**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 23:08**	**141009L020**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	107	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**14-10-0689-7-D**	**10/08/14 15:40**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 23:39**	**141009L020**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**14-10-0689-8-D**	**10/08/14 14:50**	**Aqueous**	**GC 56**	**10/09/14**	**10/10/14 01:14**	**141009L020**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	350	100	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-704-878**	**N/A**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 13:37**	**141009L020**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	38-134	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**14-10-0689-1-J**	**10/08/14 13:40**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/10/14 17:11**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Arsenic	0.885	0.0100	1.00	
Chromium	0.597	0.200	20.0	
Iron	2.80	0.100	1.00	
Manganese	0.0751	0.00500	1.00	
Sodium	77100	500	1000	
Boron	2.45	0.0200	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**14-10-0689-2-J**	**10/08/14 12:00**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/10/14 21:17**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Iron	15.1	0.100	1.00	
Manganese	1.27	0.00500	1.00	
Boron	1.11	0.0200	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**14-10-0689-2-J**	**10/08/14 12:00**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/11/14 14:27**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Sodium	4350	50.0	100	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**14-10-0689-2-J**	**10/08/14 12:00**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/17/14 14:23**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Arsenic	0.0347	0.0100	1.00	
Chromium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**14-10-0689-4-J**	**10/08/14 10:10**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/11/14 14:28**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Iron	5.07	0.100	1.00	
Manganese	2.10	0.00500	1.00	
Sodium	790	0.500	1.00	
Boron	1.66	0.0200	1.00	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**14-10-0689-4-J**	**10/08/14 10:10**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/17/14 14:25**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Arsenic	0.0807	0.0100	1.00	
Chromium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**14-10-0689-5-K**	**10/08/14 09:30**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/11/14 14:29**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Iron	0.861	0.100	1.00	
Manganese	0.364	0.00500	1.00	
Sodium	491	0.500	1.00	
Boron	1.36	0.0200	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**14-10-0689-5-K**	**10/08/14 09:30**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/17/14 14:26**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Arsenic	0.0633	0.0100	1.00	
Chromium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**14-10-0689-7-J**	**10/08/14 15:40**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/10/14 21:21**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Iron	1.65	0.100	1.00	
Manganese	0.0312	0.00500	1.00	
Boron	3.25	0.0200	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**14-10-0689-7-J**	**10/08/14 15:40**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/11/14 14:30**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Sodium	1130	50.0	100	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**14-10-0689-7-J**	**10/08/14 15:40**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/17/14 14:28**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Arsenic	0.0183	0.0100	1.00	
Chromium	ND	0.0100	1.00	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**14-10-0689-8-J**	**10/08/14 14:50**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/10/14 21:22**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Iron	6.45	0.100	1.00	
Manganese	0.183	0.00500	1.00	
Boron	5.39	0.0200	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**14-10-0689-8-J**	**10/08/14 14:50**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/11/14 14:32**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Sodium	6340	50.0	100	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**14-10-0689-8-J**	**10/08/14 14:50**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/17/14 14:29**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Arsenic	0.0242	0.0100	1.00	
Chromium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-14557**	**N/A**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/10/14 16:44**	**141009LA4**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Iron	ND	0.100	1.00	
Manganese	ND	0.00500	1.00	
Sodium	ND	0.500	1.00	
Boron	ND	0.0200	1.00	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**14-10-0689-1-A**	**10/08/14 13:40**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 19:01**	**141009L014**

Parameter	Result	RL	DF	Qualifiers
Acetone	540	100	5.00	
Benzene	25	2.5	5.00	
Ethylbenzene	ND	5.0	5.00	
Toluene	ND	5.0	5.00	
p/m-Xylene	ND	5.0	5.00	
o-Xylene	ND	5.0	5.00	
Methyl-t-Butyl Ether (MTBE)	210	5.0	5.00	
Tert-Butyl Alcohol (TBA)	450	50	5.00	
Diisopropyl Ether (DIPE)	ND	10	5.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	5.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	5.00	
Ethanol	ND	500	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	47	78-126	2,6
1,2-Dichloroethane-d4	112	75-135	
Toluene-d8	99	80-120	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**14-10-0689-2-A**	**10/08/14 12:00**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 19:29**	**141009L014**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	3.2	1.0	1.00	
Tert-Butyl Alcohol (TBA)	210	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	92	80-120	
Dibromofluoromethane	115	78-126	
1,2-Dichloroethane-d4	113	75-135	
Toluene-d8	100	80-120	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	**14-10-0689-3-A**	**10/08/14 12:50**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 19:57**	**141009L014**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	40	2.00	
Benzene	50	1.0	2.00	
Ethylbenzene	83	2.0	2.00	
Toluene	ND	2.0	2.00	
p/m-Xylene	2.1	2.0	2.00	
o-Xylene	ND	2.0	2.00	
Methyl-t-Butyl Ether (MTBE)	140	2.0	2.00	
Tert-Butyl Alcohol (TBA)	830	20	2.00	
Diisopropyl Ether (DIPE)	4.8	4.0	2.00	
Ethyl-t-Butyl Ether (ETBE)	ND	4.0	2.00	
Tert-Amyl-Methyl Ether (TAME)	ND	4.0	2.00	
Ethanol	ND	200	2.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	107	78-126	
1,2-Dichloroethane-d4	106	75-135	
Toluene-d8	101	80-120	

Return to Contents

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**14-10-0689-4-A**	**10/08/14 10:10**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 20:25**	**141009L014**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	1.7	1.0	1.00	
Tert-Butyl Alcohol (TBA)	17	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	112	78-126	
1,2-Dichloroethane-d4	112	75-135	
Toluene-d8	99	80-120	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**14-10-0689-5-A**	**10/08/14 09:30**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 20:52**	**141009L014**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	1.1	1.0	1.00	
Tert-Butyl Alcohol (TBA)	13	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	80-120	
Dibromofluoromethane	111	78-126	
1,2-Dichloroethane-d4	110	75-135	
Toluene-d8	100	80-120	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**14-10-0689-6-A**	**10/08/14 11:10**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 13:56**	**141009L014**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	1.8	1.0	1.00	
Tert-Butyl Alcohol (TBA)	21	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	89	80-120	
Dibromofluoromethane	110	78-126	
1,2-Dichloroethane-d4	112	75-135	
Toluene-d8	100	80-120	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**14-10-0689-7-B**	**10/08/14 15:40**	**Aqueous**	**GC/MS RR**	**10/14/14**	**10/14/14 18:17**	**141014L005**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	20	1.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	88	80-120	
Dibromofluoromethane	116	78-126	
1,2-Dichloroethane-d4	115	75-135	
Toluene-d8	101	80-120	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**14-10-0689-8-A**	**10/08/14 14:50**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 21:48**	**141009L014**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Tert-Butyl Alcohol (TBA)	54	10	1.00	
Diisopropyl Ether (DIPE)	93	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	80-120	
Dibromofluoromethane	115	78-126	
1,2-Dichloroethane-d4	113	75-135	
Toluene-d8	100	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**14-10-0689-8-B**	**10/08/14 14:50**	**Aqueous**	**GC/MS RR**	**10/14/14**	**10/14/14 18:45**	**141014L005**

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	620	10	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	88	80-120	
Dibromofluoromethane	122	78-126	
1,2-Dichloroethane-d4	116	75-135	
Toluene-d8	100	80-120	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-001-15334**	**N/A**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 13:28**	**141009L014**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	108	78-126	
1,2-Dichloroethane-d4	111	75-135	
Toluene-d8	99	80-120	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Marina Del Rey Sheriff Station

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-001-15369**	**N/A**	**Aqueous**	**GC/MS RR**	**10/14/14**	**10/14/14 12:15**	**141014L005**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	108	78-126	
1,2-Dichloroethane-d4	106	75-135	
Toluene-d8	98	80-120	

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009
Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-1	**14-10-0689-1**	**10/08/14 13:40**	**Aqueous**

Comment(s): (3) - The reporting limit is elevated resulting from matrix interference.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Formaldehyde	0.43	0.20	1.00		mg/L	10/08/14	10/08/14	ASTM D6303-98
Chloride (3)	120	100	100		mg/L	N/A	10/09/14	EPA 300.0
Bromide (3)	ND	10	100		mg/L	N/A	10/09/14	EPA 300.0
Sulfate	57000	2000	2000		mg/L	N/A	10/10/14	EPA 300.0
Chromium, Hexavalent	590	50	50.0		ug/L	N/A	10/08/14	EPA 7199
Alkalinity, Total (as CaCO3)	20600	100	1.00		mg/L	N/A	10/08/14	SM 2320B
Solids, Total Dissolved	92900	100	1.00		mg/L	10/14/14	10/14/14	SM 2540 C
Iron (II)	0.138	0.100	1.00		mg/L	10/08/14	10/08/14	SM 3500-FeB
Carbon, Total Organic	1100	50	100		mg/L	10/15/14	10/16/14	SM 5310 D
Carbon Dioxide	ND	1.0	1.00		mg/L	N/A	10/08/14	SM4500-CO2D

MW-2	**14-10-0689-2**	**10/08/14 12:00**	**Aqueous**

Comment(s): (3) - The reporting limit is elevated resulting from matrix interference.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Formaldehyde	0.33	0.20	1.00		mg/L	10/08/14	10/08/14	ASTM D6303-98
Chloride (3)	180	5.0	5.00		mg/L	N/A	10/09/14	EPA 300.0
Bromide (3)	ND	0.50	5.00		mg/L	N/A	10/09/14	EPA 300.0
Sulfate	9100	200	200		mg/L	N/A	10/10/14	EPA 300.0
Chromium, Hexavalent (3)	ND	5.0	5.00		ug/L	N/A	10/08/14	EPA 7199
Alkalinity, Total (as CaCO3)	1340	10.0	1.00		mg/L	N/A	10/08/14	SM 2320B
Solids, Total Dissolved	15700	100	1.00		mg/L	10/14/14	10/14/14	SM 2540 C
Iron (II)	0.475	0.100	1.00		mg/L	10/08/14	10/08/14	SM 3500-FeB
Carbon, Total Organic	140	10	20.0		mg/L	10/15/14	10/16/14	SM 5310 D
Carbon Dioxide	83	1.0	1.00		mg/L	N/A	10/08/14	SM4500-CO2D

Return to Contents

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009
Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-4	**14-10-0689-4**	**10/08/14 10:10**	**Aqueous**

Comment(s): (3) - The reporting limit is elevated resulting from matrix interference.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Formaldehyde	ND	0.20	1.00		mg/L	10/08/14	10/08/14	ASTM D6303-98
Bromide	2.1	0.20	2.00		mg/L	N/A	10/09/14	EPA 300.0
Chloride	470	40	40.0		mg/L	N/A	10/10/14	EPA 300.0
Sulfate	1900	40	40.0		mg/L	N/A	10/10/14	EPA 300.0
Chromium, Hexavalent (3)	ND	2.0	2.00		ug/L	N/A	10/08/14	EPA 7199
Alkalinity, Total (as CaCO3)	1020	10.0	1.00		mg/L	N/A	10/08/14	SM 2320B
Solids, Total Dissolved	4640	10.0	1.00		mg/L	10/14/14	10/14/14	SM 2540 C
Iron (II)	1.56	0.100	1.00		mg/L	10/08/14	10/08/14	SM 3500-FeB
Carbon, Total Organic	99	2.5	5.00		mg/L	10/15/14	10/16/14	SM 5310 D
Carbon Dioxide	310	5.0	1.00		mg/L	N/A	10/08/14	SM4500-CO2D

MW-5	14-10-0689-5	10/08/14 09:30	Aqueous

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Formaldehyde	ND	0.20	1.00		mg/L	10/08/14	10/08/14	ASTM D6303-98
Bromide	1.4	0.10	1.00		mg/L	N/A	10/09/14	EPA 300.0
Chloride	220	20	20.0		mg/L	N/A	10/10/14	EPA 300.0
Sulfate	740	20	20.0		mg/L	N/A	10/10/14	EPA 300.0
Chromium, Hexavalent	ND	1.0	1.00		ug/L	N/A	10/08/14	EPA 7199
Alkalinity, Total (as CaCO3)	770	5.00	1.00		mg/L	N/A	10/08/14	SM 2320B
Solids, Total Dissolved	2300	10.0	1.00		mg/L	10/14/14	10/14/14	SM 2540 C
Iron (II)	ND	0.100	1.00		mg/L	10/08/14	10/08/14	SM 3500-FeB
Carbon, Total Organic	69	2.5	5.00		mg/L	10/15/14	10/16/14	SM 5310 D
Carbon Dioxide	110	5.0	1.00		mg/L	N/A	10/08/14	SM4500-CO2D

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009
Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-7	**14-10-0689-7**	**10/08/14 15:40**	**Aqueous**

Comment(s): (3) - The reporting limit is elevated resulting from matrix interference.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Formaldehyde	0.66	0.20	1.00		mg/L	10/08/14	10/08/14	ASTM D6303-98
Chloride	770	10	10.0		mg/L	N/A	10/09/14	EPA 300.0
Bromide	3.5	1.0	10.0		mg/L	N/A	10/09/14	EPA 300.0
Sulfate	140	10	10.0		mg/L	N/A	10/09/14	EPA 300.0
Chromium, Hexavalent (3)	ND	5.0	5.00		ug/L	N/A	10/08/14	EPA 7199
Alkalinity, Total (as CaCO3)	1260	10.0	1.00		mg/L	N/A	10/08/14	SM 2320B
Solids, Total Dissolved	3010	10.0	1.00		mg/L	10/14/14	10/14/14	SM 2540 C
Iron (II)	0.180	0.100	1.00		mg/L	10/08/14	10/08/14	SM 3500-FeB
Carbon, Total Organic	130	10	20.0		mg/L	10/15/14	10/16/14	SM 5310 D
Carbon Dioxide	55	1.0	1.00		mg/L	N/A	10/08/14	SM4500-CO2D

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-8	**14-10-0689-8**	**10/08/14 14:50**	**Aqueous**

Comment(s): (3) - The reporting limit is elevated resulting from matrix interference.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Formaldehyde	0.28	0.20	1.00		mg/L	10/08/14	10/08/14	ASTM D6303-98
Bromide	34	1.0	10.0		mg/L	N/A	10/09/14	EPA 300.0
Chloride	9200	200	200		mg/L	N/A	10/10/14	EPA 300.0
Sulfate	1800	200	200		mg/L	N/A	10/10/14	EPA 300.0
Chromium, Hexavalent (3)	ND	10	10.0		ug/L	N/A	10/08/14	EPA 7199
Alkalinity, Total (as CaCO3)	1240	10.0	1.00		mg/L	N/A	10/08/14	SM 2320B
Solids, Total Dissolved	19800	100	1.00		mg/L	10/14/14	10/14/14	SM 2540 C
Iron (II)	0.174	0.100	1.00		mg/L	10/08/14	10/08/14	SM 3500-FeB
Carbon, Total Organic	120	10	20.0		mg/L	10/15/14	10/16/14	SM 5310 D
Carbon Dioxide	99	1.0	1.00		mg/L	N/A	10/08/14	SM4500-CO2D

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

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Analytical Report

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009
Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
Method Blank		**N/A**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Formaldehyde	ND	0.20	1.00		mg/L	10/08/14	10/08/14	ASTM D6303-98
Chloride	ND	1.0	1.00		mg/L	N/A	10/09/14	EPA 300.0
Bromide	ND	0.10	1.00		mg/L	N/A	10/09/14	EPA 300.0
Sulfate	ND	1.0	1.00		mg/L	N/A	10/09/14	EPA 300.0
Chloride	ND	1.0	1.00		mg/L	N/A	10/10/14	EPA 300.0
Sulfate	ND	1.0	1.00		mg/L	N/A	10/10/14	EPA 300.0
Chromium, Hexavalent	ND	1.0	1.00		ug/L	N/A	10/08/14	EPA 7199
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	10/08/14	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	10/14/14	10/14/14	SM 2540 C
Iron (II)	ND	0.100	1.00		mg/L	10/08/14	10/08/14	SM 3500-FeB
Carbon, Total Organic	ND	0.50	1.00		mg/L	10/15/14	10/16/14	SM 5310 D

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

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Quality Control - Spike/Spike Duplicate

SLR International Corporation		Date Received:	10/08/14
17701 Cowan, Suite 210		Work Order:	14-10-0689
Irvine, CA 92614-6009		Preparation:	N/A
		Method:	ASTM D6303-98
Project: Marina Del Rey Sheriff Station			Page 1 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-8	**Sample**	**Aqueous**	**UV 9**	**10/08/14**	**10/08/14 21:08**	**E1008FORS1**
MW-8	**Matrix Spike**	**Aqueous**	**UV 9**	**10/08/14**	**10/08/14 21:08**	**E1008FORS1**
MW-8	**Matrix Spike Duplicate**	**Aqueous**	**UV 9**	**10/08/14**	**10/08/14 21:08**	**E1008FORS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Formaldehyde	0.2753	2.000	2.187	96	2.119	92	70-130	3	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: EPA 300.0
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-10-0677-1	**Sample**	**Aqueous**	**IC 10**	**N/A**	**10/09/14 10:46**	**141009S01**
14-10-0677-1	**Matrix Spike**	**Aqueous**	**IC 10**	**N/A**	**10/09/14 13:20**	**141009S01**
14-10-0677-1	**Matrix Spike Duplicate**	**Aqueous**	**IC 10**	**N/A**	**10/09/14 13:36**	**141009S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	326.4	5000	5410	102	5408	102	80-120	0	0-20	
Bromide	0.4610	500.0	505.1	101	505.5	101	80-120	0	0-20	
Sulfate	261.5	5000	5317	101	5285	100	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: EPA 300.0

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-10-0752-1	**Sample**	**Aqueous**	**IC 10**	**N/A**	**10/10/14 12:34**	**141010S01**
14-10-0752-1	**Matrix Spike**	**Aqueous**	**IC 10**	**N/A**	**10/10/14 13:24**	**141010S01**
14-10-0752-1	**Matrix Spike Duplicate**	**Aqueous**	**IC 10**	**N/A**	**10/10/14 13:39**	**141010S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	1169	5000	6190	100	6175	100	80-120	0	0-20	
Sulfate	ND	5000	4805	96	4788	96	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: EPA 7199

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-10-0686-12	**Sample**	**Aqueous**	**IC 11**	**N/A**	**10/08/14 20:41**	**141008S03**
14-10-0686-12	**Matrix Spike**	**Aqueous**	**IC 11**	**N/A**	**10/08/14 20:47**	**141008S03**
14-10-0686-12	**Matrix Spike Duplicate**	**Aqueous**	**IC 11**	**N/A**	**10/08/14 20:54**	**141008S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	5.368	50.00	53.36	96	55.78	101	70-130	4	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: SM 3500-FeB
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-5	**Sample**	**Aqueous**	**UV 9**	**10/08/14**	**10/08/14 20:43**	**E1008FES2**
MW-5	**Matrix Spike**	**Aqueous**	**UV 9**	**10/08/14**	**10/08/14 20:43**	**E1008FES2**
MW-5	**Matrix Spike Duplicate**	**Aqueous**	**UV 9**	**10/08/14**	**10/08/14 20:43**	**E1008FES2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Iron (II)	ND	1.000	0.9200	92	0.9400	94	70-130	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: SM 5310 D

Project: Marina Del Rey Sheriff Station

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-10-0777-9	**Sample**	**Aqueous**	**TOC 6**	**10/15/14**	**10/16/14 04:09**	**E1015TOCS1**
14-10-0777-9	**Matrix Spike**	**Aqueous**	**TOC 6**	**10/15/14**	**10/16/14 04:09**	**E1015TOCS1**
14-10-0777-9	**Matrix Spike Duplicate**	**Aqueous**	**TOC 6**	**10/15/14**	**10/16/14 04:09**	**E1015TOCS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	126.0	100.0	216.0	90	212.0	86	31-145	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8015B (M)
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-10-0629-1	**Sample**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 14:09**	**141009S008**
14-10-0629-1	**Matrix Spike**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 14:41**	**141009S008**
14-10-0629-1	**Matrix Spike Duplicate**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 15:12**	**141009S008**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	2051	103	2003	100	68-122	2	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 3010A Total
Method: EPA 6010B
Page 8 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	**Sample**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/10/14 17:11**	**141009SA4**
MW-1	**Matrix Spike**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/10/14 17:13**	**141009SA4**
MW-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/10/14 17:14**	**141009SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	0.8854	0.5000	1.493	122	1.478	119	80-140	1	0-11	
Chromium	0.5970	0.5000	0.6851	18	0.7163	24	86-122	4	0-8	3
Iron	2.799	0.5000	3.596	4X	3.646	4X	65-149	4X	0-21	Q
Manganese	0.07510	0.5000	0.4091	67	0.4244	70	86-116	4	0-7	3
Sodium	77130	50.00	1000000	4X	40740	4X	73-127	4X	0-9	Q
Boron	2.452	0.5000	3.147	4X	3.092	4X	81-135	4X	0-7	Q

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B

Project: Marina Del Rey Sheriff Station

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-6	**Sample**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 13:56**	**141009S004**
MW-6	**Matrix Spike**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 14:24**	**141009S004**
MW-6	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 14:51**	**141009S004**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	60.46	121	53.30	107	74-122	13	0-21	
Carbon Tetrachloride	ND	50.00	59.02	118	52.77	106	60-144	11	0-21	
Chlorobenzene	ND	50.00	59.80	120	51.27	103	73-120	15	0-22	
1,2-Dibromoethane	ND	50.00	59.54	119	50.55	101	80-122	16	0-20	
1,2-Dichlorobenzene	ND	50.00	55.99	112	49.40	99	70-120	13	0-26	
1,2-Dichloroethane	ND	50.00	58.98	118	50.87	102	64-142	15	0-20	
1,1-Dichloroethene	ND	50.00	52.45	105	45.88	92	52-136	13	0-21	
Ethylbenzene	ND	50.00	61.28	123	52.63	105	77-125	15	0-24	
Toluene	ND	50.00	59.00	118	51.59	103	72-126	13	0-23	
Trichloroethene	ND	50.00	57.29	115	49.92	100	74-128	14	0-22	
Vinyl Chloride	ND	50.00	50.96	102	44.57	89	67-133	13	0-20	
p/m-Xylene	ND	100.0	126.9	127	107.8	108	63-129	16	0-25	
o-Xylene	ND	50.00	63.52	127	54.36	109	62-128	16	0-24	
Methyl-t-Butyl Ether (MTBE)	1.803	50.00	56.17	109	49.09	95	68-134	13	0-21	
Tert-Butyl Alcohol (TBA)	20.84	250.0	280.0	104	268.0	99	65-143	4	0-30	
Diisopropyl Ether (DIPE)	ND	50.00	60.59	121	52.58	105	61-139	14	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	53.49	107	47.53	95	64-136	12	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	55.30	111	48.47	97	67-133	13	0-20	
Ethanol	ND	500.0	547.7	110	542.2	108	34-178	1	0-58	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B

Project: Marina Del Rey Sheriff Station

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-10-0737-3	**Sample**	**Aqueous**	**GC/MS RR**	**10/14/14**	**10/14/14 12:43**	**141014S010**
14-10-0737-3	**Matrix Spike**	**Aqueous**	**GC/MS RR**	**10/14/14**	**10/14/14 14:06**	**141014S010**
14-10-0737-3	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS RR**	**10/14/14**	**10/14/14 14:34**	**141014S010**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	49.24	98	54.31	109	74-122	10	0-21	
Carbon Tetrachloride	ND	50.00	55.18	110	59.59	119	60-144	8	0-21	
Chlorobenzene	ND	50.00	48.14	96	52.31	105	73-120	8	0-22	
1,2-Dibromoethane	ND	50.00	48.06	96	51.92	104	80-122	8	0-20	
1,2-Dichlorobenzene	ND	50.00	45.31	91	49.70	99	70-120	9	0-26	
1,2-Dichloroethane	ND	50.00	47.20	94	52.22	104	64-142	10	0-20	
1,1-Dichloroethene	ND	50.00	42.09	84	46.37	93	52-136	10	0-21	
Ethylbenzene	ND	50.00	48.97	98	53.49	107	77-125	9	0-24	
Toluene	ND	50.00	48.15	96	52.77	106	72-126	9	0-23	
Trichloroethene	ND	50.00	45.35	91	50.23	100	74-128	10	0-22	
Vinyl Chloride	ND	50.00	40.01	80	44.40	89	67-133	10	0-20	
p/m-Xylene	ND	100.0	102.2	102	109.6	110	63-129	7	0-25	
o-Xylene	ND	50.00	50.94	102	55.34	111	62-128	8	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	44.31	89	49.93	100	68-134	12	0-21	
Tert-Butyl Alcohol (TBA)	ND	250.0	235.5	94	286.4	115	65-143	20	0-30	
Diisopropyl Ether (DIPE)	ND	50.00	49.10	98	54.61	109	61-139	11	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	45.23	90	50.63	101	64-136	11	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	46.72	93	52.23	104	67-133	11	0-20	
Ethanol	ND	500.0	414.2	83	476.6	95	34-178	14	0-58	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MW-4	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/08/14 20:25**	**E1008ALKD3**
MW-4	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/08/14 20:25**	**E1008ALKD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	1020	1000	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: SM 2540 C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MW-5	**Sample**	**Aqueous**	**SC 5**	**10/14/14 00:00**	**10/14/14 15:00**	**E1014TDSD1**
MW-5	**Sample Duplicate**	**Aqueous**	**SC 5**	**10/14/14 00:00**	**10/14/14 15:00**	**E1014TDSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	2300	2335	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

SLR International Corporation		Date Received:	10/08/14
17701 Cowan, Suite 210		Work Order:	14-10-0689
Irvine, CA 92614-6009		Preparation:	N/A
		Method:	SM4500-CO2D
Project: Marina Del Rey Sheriff Station			Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MW-4	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/08/14 20:25**	**E1008CO2D3**
MW-4	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/08/14 20:25**	**E1008CO2D3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Carbon Dioxide	308.8	317.0	3	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: RSK-175M

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-663-2262	**LCS**	**Aqueous**	**GC 61**	**N/A**	**10/13/14 12:13**	**141013L02**
099-12-663-2262	**LCSD**	**Aqueous**	**GC 61**	**N/A**	**10/13/14 12:37**	**141013L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	102.0	93.74	92	94.95	93	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

SLR International Corporation		Date Received:	10/08/14
17701 Cowan, Suite 210		Work Order:	14-10-0689
Irvine, CA 92614-6009		Preparation:	N/A
		Method:	ASTM D6303-98
Project: Marina Del Rey Sheriff Station			Page 2 of 13

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-490-349	**LCS**	**Aqueous**	**UV 9**	**10/08/14**	**10/08/14 21:08**	**E1008FORL1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Formaldehyde	2.000	1.975	99	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

SLR International Corporation		Date Received:	10/08/14
17701 Cowan, Suite 210		Work Order:	14-10-0689
Irvine, CA 92614-6009		Preparation:	N/A
		Method:	EPA 300.0
Project: Marina Del Rey Sheriff Station			Page 3 of 13

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-5082	**LCS**	**Aqueous**	**IC 10**	**N/A**	**10/09/14 10:31**	**141009L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	50.77	102	90-110	
Bromide	5.000	5.066	101	90-110	
Sulfate	50.00	50.27	101	90-110	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: EPA 300.0

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-906-5083	**LCS**	**Aqueous**	**IC 10**	**N/A**	**10/10/14 10:07**	**141010L01**
099-12-906-5083	**LCSD**	**Aqueous**	**IC 10**	**N/A**	**10/10/14 11:12**	**141010L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	50.00	50.68	101	50.79	102	90-110	0	0-15	
Sulfate	50.00	50.30	101	50.40	101	90-110	0	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

SLR International Corporation	Date Received: 10/08/14
17701 Cowan, Suite 210	Work Order: 14-10-0689
Irvine, CA 92614-6009	Preparation: N/A
	Method: EPA 7199
Project: Marina Del Rey Sheriff Station	Page 5 of 13

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-123-3725	**LCS**	**Aqueous**	**IC 11**	**N/A**	**10/08/14 19:38**	**141008L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chromium, Hexavalent	50.00	47.26	95	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-485	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/08/14 20:25**	**E1008ALKB3**
099-15-859-485	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/08/14 20:25**	**E1008ALKB3**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	98.00	98	98.00	98	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: SM 2540 C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-4254	**LCS**	**Aqueous**	**SC 5**	**10/14/14**	**10/14/14 15:00**	**E1014TDSL1**
099-12-180-4254	**LCSD**	**Aqueous**	**SC 5**	**10/14/14**	**10/14/14 15:00**	**E1014TDSL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	95.00	95	100.0	100	80-120	5	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

SLR International Corporation		Date Received:	10/08/14
17701 Cowan, Suite 210		Work Order:	14-10-0689
Irvine, CA 92614-6009		Preparation:	N/A
		Method:	SM 3500-FeB
Project: Marina Del Rey Sheriff Station			Page 8 of 13

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-111-4924	**LCS**	**Aqueous**	**UV 9**	**10/08/14**	**10/08/14 20:43**	**E1008FEL2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Iron (II)	1.000	0.9500	95	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: N/A
Method: SM 5310 D

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-097-5375	**LCS**	**Aqueous**	**TOC 6**	**10/15/14**	**10/16/14 04:09**	**E1015TOCL1**
099-05-097-5375	**LCSD**	**Aqueous**	**TOC 6**	**10/15/14**	**10/16/14 04:09**	**E1015TOCL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	5.000	5.220	104	5.130	103	80-120	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

SLR International Corporation		Date Received:	10/08/14
17701 Cowan, Suite 210		Work Order:	14-10-0689
Irvine, CA 92614-6009		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: Marina Del Rey Sheriff Station			Page 10 of 13

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-704-878	**LCS**	**Aqueous**	**GC 56**	**10/09/14**	**10/09/14 13:06**	**141009L020**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	2000	2107	105	78-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Project: Marina Del Rey Sheriff Station

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 3010A Total
Method: EPA 6010B
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-14557	**LCS**	**Aqueous**	**ICP 7300**	**10/09/14**	**10/10/14 16:53**	**141009LA4**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	0.5000	0.4725	95	80-120	
Chromium	0.5000	0.4837	97	80-120	
Iron	0.5000	0.5088	102	80-120	
Manganese	0.5000	0.5067	101	80-120	
Sodium	5.000	4.122	82	80-120	
Boron	0.5000	0.4122	82	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B

Project: Marina Del Rey Sheriff Station

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-001-15334	**LCS**	**Aqueous**	**GC/MS RR**	**10/09/14**	**10/09/14 12:25**	**141009L014**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	56.53	113	80-120	73-127	
Carbon Tetrachloride	50.00	55.29	111	67-139	55-151	
Chlorobenzene	50.00	55.60	111	78-120	71-127	
1,2-Dibromoethane	50.00	55.27	111	80-120	73-127	
1,2-Dichlorobenzene	50.00	52.92	106	63-129	52-140	
1,2-Dichloroethane	50.00	54.73	109	70-130	60-140	
1,1-Dichloroethene	50.00	50.54	101	66-126	56-136	
Ethylbenzene	50.00	56.74	113	80-123	73-130	
Toluene	50.00	55.15	110	80-120	73-127	
Trichloroethene	50.00	53.56	107	80-122	73-129	
Vinyl Chloride	50.00	49.10	98	70-130	60-140	
p/m-Xylene	100.0	117.2	117	75-123	67-131	
o-Xylene	50.00	58.98	118	74-122	66-130	
Methyl-t-Butyl Ether (MTBE)	50.00	52.72	105	69-129	59-139	
Tert-Butyl Alcohol (TBA)	250.0	287.8	115	69-129	59-139	
Diisopropyl Ether (DIPE)	50.00	57.62	115	68-128	58-138	
Ethyl-t-Butyl Ether (ETBE)	50.00	52.24	104	63-135	51-147	
Tert-Amyl-Methyl Ether (TAME)	50.00	52.41	105	67-133	56-144	
Ethanol	500.0	502.2	100	42-168	21-189	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

SLR International Corporation
17701 Cowan, Suite 210
Irvine, CA 92614-6009

Date Received: 10/08/14
Work Order: 14-10-0689
Preparation: EPA 5030C
Method: EPA 8260B

Project: Marina Del Rey Sheriff Station

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-001-15369	**LCS**	**Aqueous**	**GC/MS RR**	**10/14/14**	**10/14/14 11:06**	**141014L005**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	53.74	107	80-120	73-127	
Carbon Tetrachloride	50.00	60.59	121	67-139	55-151	
Chlorobenzene	50.00	52.16	104	78-120	71-127	
1,2-Dibromoethane	50.00	51.78	104	80-120	73-127	
1,2-Dichlorobenzene	50.00	50.22	100	63-129	52-140	
1,2-Dichloroethane	50.00	50.27	101	70-130	60-140	
1,1-Dichloroethene	50.00	47.97	96	66-126	56-136	
Ethylbenzene	50.00	54.02	108	80-123	73-130	
Toluene	50.00	51.88	104	80-120	73-127	
Trichloroethene	50.00	50.39	101	80-122	73-129	
Vinyl Chloride	50.00	44.89	90	70-130	60-140	
p/m-Xylene	100.0	111.6	112	75-123	67-131	
o-Xylene	50.00	55.89	112	74-122	66-130	
Methyl-t-Butyl Ether (MTBE)	50.00	53.08	106	69-129	59-139	
Tert-Butyl Alcohol (TBA)	250.0	277.5	111	69-129	59-139	
Diisopropyl Ether (DIPE)	50.00	55.70	111	68-128	58-138	
Ethyl-t-Butyl Ether (ETBE)	50.00	53.23	106	63-135	51-147	
Tert-Amyl-Methyl Ether (TAME)	50.00	52.25	104	67-133	56-144	
Ethanol	500.0	472.2	94	42-168	21-189	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-10-0689 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D6303-98	N/A	686	UV 9	1
EPA 300.0	N/A	650	IC 10	1
EPA 300.0	N/A	921	IC 10	1
EPA 6010B	EPA 3010A Total	469	ICP 7300	1
EPA 7199	N/A	811	IC 11	1
EPA 8015B (M)	EPA 5030C	933	GC 56	2
EPA 8260B	EPA 5030C	796	GC/MS RR	2
RSK-175M	N/A	783	GC 61	2
RSK-175M	N/A	884	GC 61	2
SM 2320B	N/A	688	PH1/BUR03	1
SM 2540 C	N/A	722	SC 5	1
SM 3500-FeB	N/A	686	UV 9	1
SM 5310 D	N/A	735	TOC 6	1
SM4500-CO2D	N/A	688	PH1/BUR03	1

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Glossary of Terms and Qualifiers

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

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

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

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

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BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY

CLIENT: SLR

SITE: Marina Del Rey Sheriff Station
Marina Del Rey, CA

	SAMPLE I.D.	DATE	TIME	MATRIX W= Water	#	CONTAINERS Preservation	CONTAINERS Type	BTEX + Oxys, Acetone, Ethanol (EPA 8260)	TPH-g (EPA 8015)	Methane gas (RSK 175 M)	TOC (SM5310D)	Iron ferrous (SM 3500)	Carbon Dioxide (SM 4500)	Formaldehyde (ASTM 6303-98)	TDS (SM2540C)	Alkalinity (SM2320B)	Hexavalent Cr (EPA 7199)	Sulfate, Bromide, Chloride (EPA 300.0)	Total Cr, Mn, Fe,As, B, Na (EPA 6010)	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
1	MW-1	10/8/14	1340	W	16	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				1
2	MW-2		1200	W	16	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				2
3	MW-3		1250	W	6	HCL	VOAs	X	X														3
4	MW-4		~~0930~~ 1010	W	19 16 (16)	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				4
5	MW-5		0930	W	16 19	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				5
6	MW-6		1110	W	6	HCL	VOAs	X	X														6
7	MW-7		1540	W	16	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				7
8	MW-8		1450	W	16	Various	Various	X	X	X	X	X	X	X	X	X	X	X	X				8

CONDUCT ANALYSIS TO DETECT

Send Laboratory Data and Invoice to:

John Bennett, P.G.
SLR.
17701 Cowan, Suite 210
Irvine, CA 92614
Main: 949-553-8417 x109
jbennett@slrconsulting.com

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY
	10/8/14		Tyler Keene

RESULTS NEEDED NO LATER THAN: As Contracted

RELEASED BY	TIME	Tyler Keene 10/8/14	DATE 10/9/14	TIME 1745
RELEASED BY	TIME	Danny Ee 10/8/14	DATE 10/8/14	TIME 19:14
RELEASED BY	TIME		DATE	TIME
SHIPPED VIA	TIME SENT			

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WORK ORDER #: 14-10-0689

SAMPLE RECEIPT FORM

Cooler 1 of 2

CLIENT: SLR Consulting DATE: 10/08/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.7 °C - 0.2 °C (CF) = 2.5 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 689

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 689

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 862

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Aqueous: ☐VOA ☑7 VOAh ☐VOA**na₂** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na₂** ☐1AGB**s**

☑2 500AGB ☐500AGJ ☐500AGJ**s** ☑250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☑2 250PB ☑250PB**n** ☑125PB ☐125PB**znna** ☐100PJ ☐100PJ**na₂** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 862

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 689/862

Preservative: **h:** HCL **n:** HNO_3 **na₂:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by:

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WORK ORDER #: 14-10-0689

SAMPLE RECEIPT FORM

Cooler 2 of 2

CLIENT: SLR Consulting. DATE: 10/08/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.0 °C - 0.2 °C (CF) = 2.8 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 617

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 689

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 862

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Aqueous: ☐VOA ☑VOAh ☐VOA**na**$_2$ ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na**$_2$ ☐1AGB**s**

☑500AGB ☐500AGJ ☐500AGJ**s** ☑250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☑250PB ☑250PB**n** ☑125PB ☐125PB**znna** ☐100PJ ☐100PJ**na**$_2$ ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 862

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 739

Preservative: **h:** HCL **n:** HNO_3 **na**$_2$:$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 739

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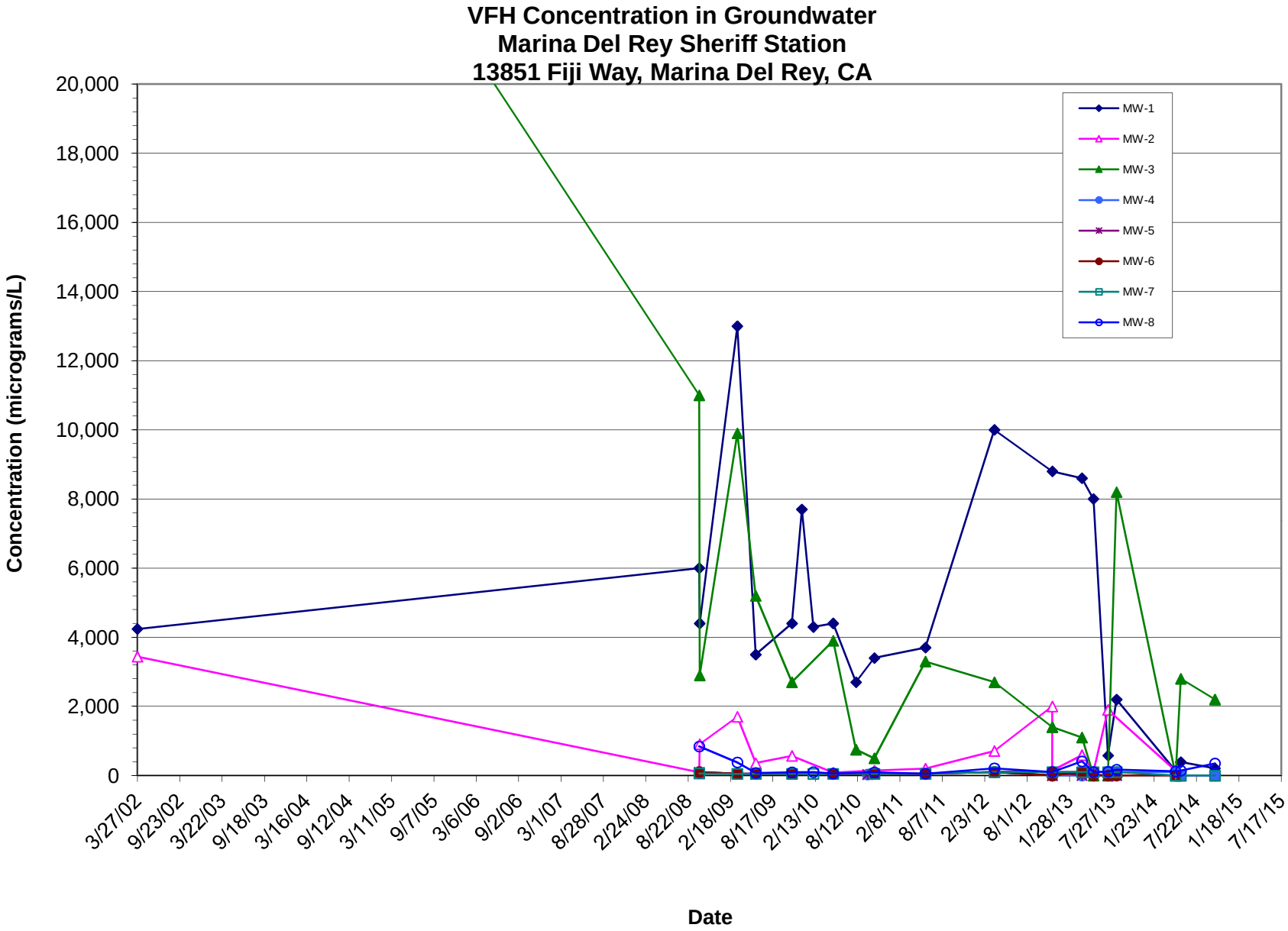
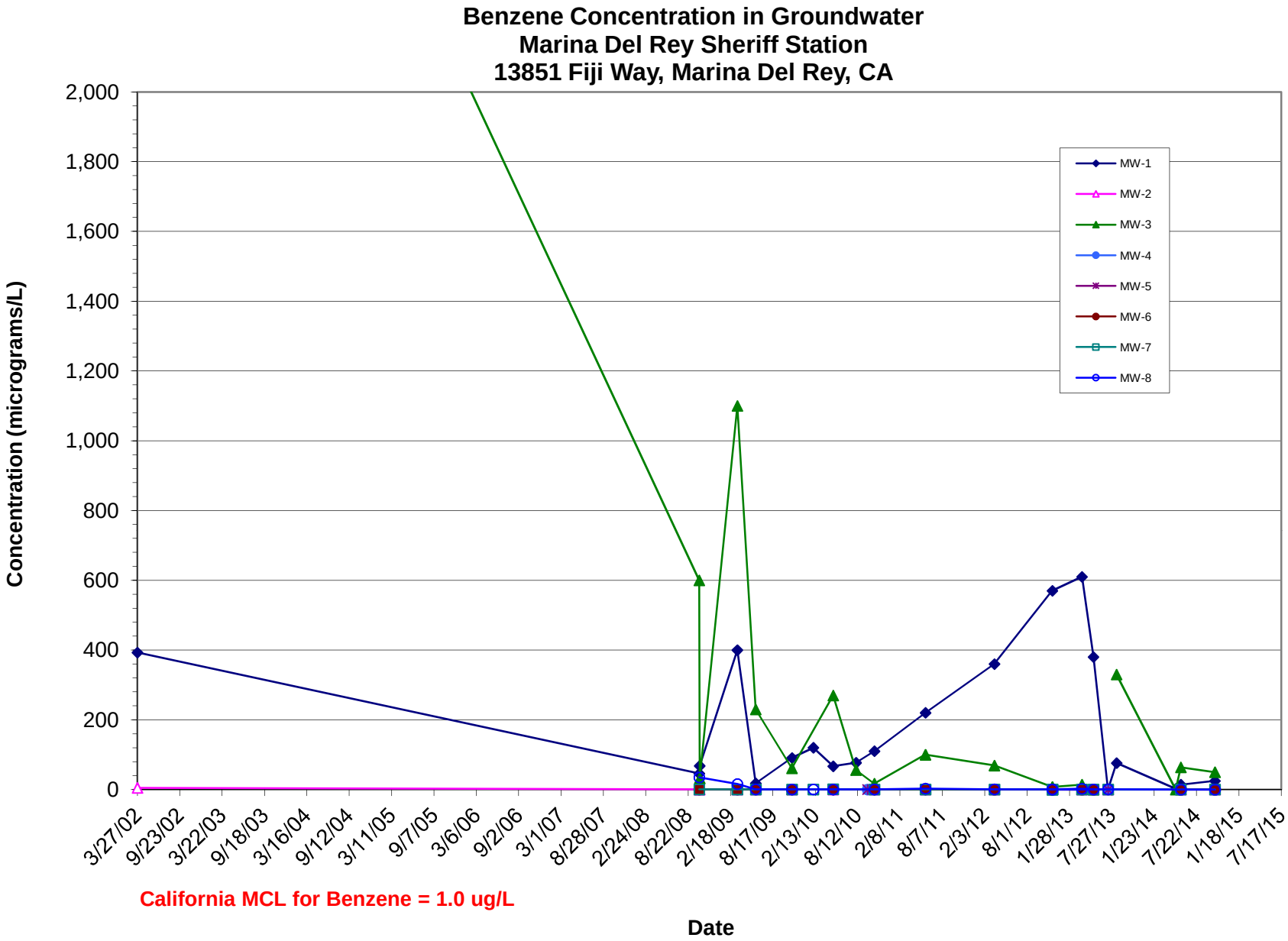
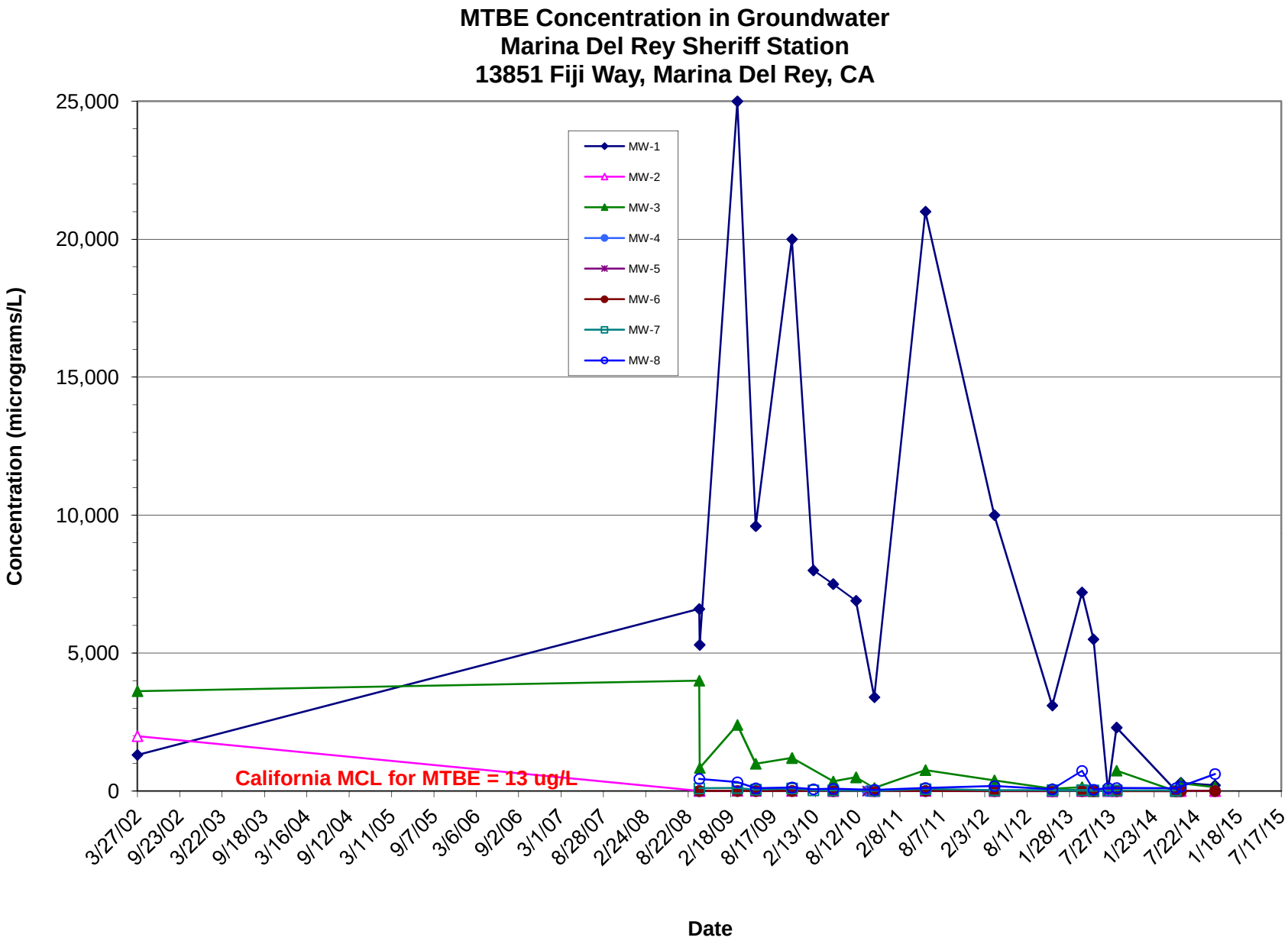
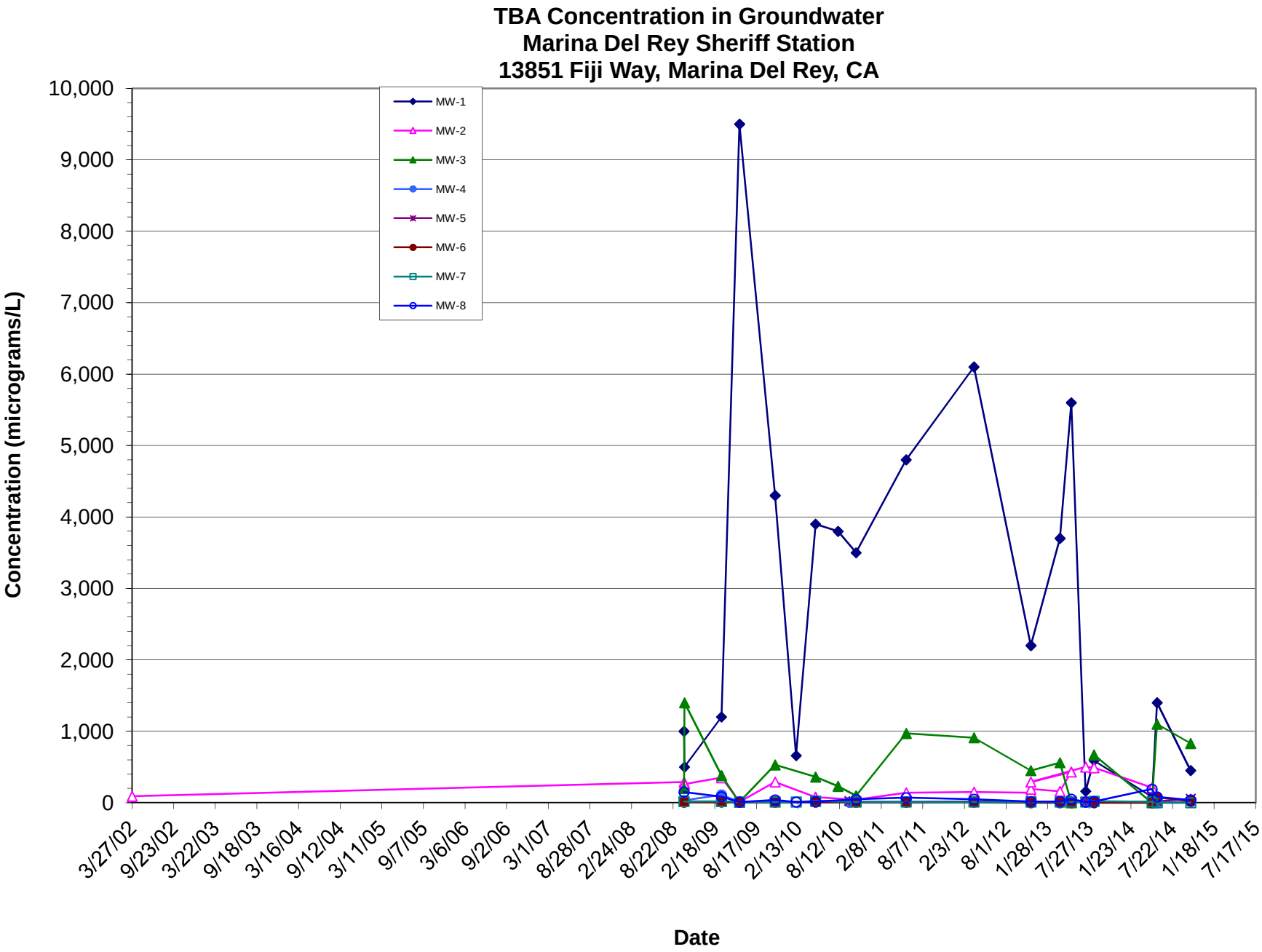
APPENDIX D

MW-1 through MW-8 Concentrations vs. Time Graphs


VFH Concentration in Groundwater
Marina Del Rey Sheriff Station
13851 Fiji Way, Marina Del Rey, CA
Concentration (micrograms/L)
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
3/27/02
9/23/02
3/22/03
9/18/03
3/16/04
9/12/04
3/11/05
9/7/05
3/6/06
9/2/06
3/1/07
8/28/07
2/24/08
8/22/08
2/18/09
8/17/09
2/13/10
8/12/10
2/8/11
8/7/11
2/3/12
8/1/12
1/28/13
7/27/13
1/23/14
7/22/14
1/18/15
7/17/15
Date
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8


Benzene Concentration in Groundwater
Marina Del Rey Sheriff Station
13851 Fiji Way, Marina Del Rey, CA
Concentration (micrograms/L)
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
3/27/02
9/23/02
3/22/03
9/18/03
3/16/04
9/12/04
3/11/05
9/7/05
3/6/06
9/2/06
3/1/07
8/28/07
2/24/08
8/22/08
2/18/09
8/17/09
2/13/10
8/12/10
2/8/11
8/7/11
2/3/12
8/1/12
1/28/13
7/27/13
1/23/14
7/22/14
1/18/15
7/17/15
California MCL for Benzene = 1.0 ug/L
Date


MTBE Concentration in Groundwater
Marina Del Rey Sheriff Station
13851 Fiji Way, Marina Del Rey, CA
Concentration (micrograms/L)
25,000
20,000
15,000
10,000
5,000
0
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
California MCL for MTBE = 13 ug/L
3/27/02
9/23/02
3/22/03
9/18/03
3/16/04
9/12/04
3/11/05
9/7/05
3/6/06
9/2/06
3/1/07
8/28/07
2/24/08
8/22/08
2/18/09
8/17/09
2/13/10
8/12/10
2/8/11
8/7/11
2/3/12
8/1/12
1/28/13
7/27/13
1/23/14
7/22/14
1/18/15
7/17/15
Date


TBA Concentration in Groundwater
Marina Del Rey Sheriff Station
13851 Fiji Way, Marina Del Rey, CA
Concentration (micrograms/L)
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
3/27/02
9/23/02
3/22/03
9/18/03
3/16/04
9/12/04
3/11/05
9/7/05
3/6/06
9/2/06
3/1/07
8/28/07
2/24/08
8/22/08
2/18/09
8/17/09
2/13/10
8/12/10
2/8/11
8/7/11
2/3/12
8/1/12
1/28/13
7/27/13
1/23/14
7/22/14
1/18/15
7/17/15
Date