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**Jennifer C. Sedlachek**  
Project Manager

**ExxonMobil**

September 29, 2015

**RECEIVED**

By Alameda County Environmental Health 8:52 am, Oct 01, 2015

Ms. Karel Detterman  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, Room 250  
Alameda, California 94502-6577

**RE: Former Mobil RAS #99105/6301 San Pablo Avenue, Oakland, California.**

Dear Ms. Detterman:

Attached for your review and comment is a copy of the letter report entitled *Groundwater and Soil Vapor Sampling Reporting, Third Quarter 2015*, dated September 29, 2015, for the above-referenced site. The report was prepared by Cardno, of Petaluma, California, and details activities at the subject site.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions or comments, please contact me at 510.547.8196.

Sincerely,



Jennifer C. Sedlachek  
Project Manager

Attachment: Cardno's *Groundwater and Soil Vapor Sampling Reporting, Third Quarter 2015*,  
dated September 29, 2015

cc: w/ attachment  
Mr. Leroy Griffin, Oakland Fire Department  
Messrs. On Dan and Nathan Lam

w/o attachment  
Mr. Greg Gurss, Cardno



September 29, 2015  
Cardno 2783C.Q153

Ms. Jennifer C. Sedlachek  
ExxonMobil Environmental Services Company  
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[www.cardno.com](http://www.cardno.com)

**SUBJECT**      **Groundwater and Soil Vapor Monitoring Report, Third Quarter 2015**  
Former Mobil Service Station 99105  
6301 San Pablo Avenue, Oakland, California

## INTRODUCTION

At the request of ExxonMobil Environmental Services (EMES), on behalf of ExxonMobil Oil Corporation, Cardno performed third quarter 2015 groundwater and soil vapor monitoring and sampling activities at the subject site. Relevant plates, graphs, tables, and appendices are included at the end of this report. Currently, the site operates as an oil change facility.

## GROUNDWATER MONITORING AND SAMPLING SUMMARY

<b>Gauging and sampling date:</b>	08/14/15
<b>Wells gauged and sampled:</b>	MW2 through MW8
<b>Presence of NAPL:</b>	Sheen in well MW5
<b>Groundwater flow direction:</b>	Southwest
<b>Laboratory:</b>	Eurofins Calscience, Inc., Garden Grove, California
<b>Analyses performed:</b>	EPA Method 8015B    TPHd, TPHg EPA Method 8260B    BTEX, MTBE, TAME, TBA, DIPE, EDB, 1,2-DCA, ETBE
<b>Waste disposal:</b>	69.5 gallons purge and decon water delivered to Instrat, Inc. of Rio Vista, California, on 09/18/15

## SOIL VAPOR MONITORING AND SAMPLING SUMMARY

<b>Screening and sampling date:</b>	08/14/15
<b>Wells monitored:</b>	VW1 through VW5

## RESULTS

Dissolved-phase concentrations show overall stable or decreasing trends, with the exception of BTEX concentrations in wells MW7 and MW8, which have only been sampled since August 2014. Dissolved-phase concentrations are limited in extent and adequately delineated:

- Toward the north by former well MW1.
- Toward the northwest by well MW2.
- Toward the west by borings B6 through B8 and AB11.
- Toward the east by well MW6.

PID measurements from the soil vapor samples have not shown a significant decrease since the feasibility study performed in 2014 (Cardno ERI, 2014).

## CONCLUSIONS AND RECOMMENDATIONS

Soil vapor monitoring wells have been monitored for one year following the DPE feasibility study conducted in 2014 (Cardno ERI, 2014). It does not appear that the DPE event caused a significant reduction in the soil vapor concentrations. Further review of the DPE feasibility data and the subsequent soil vapor data indicate that additional remediation by DPE is not likely to reduce the reported soil vapor concentrations. The vapor flow rate extracted from the subsurface (approximately 25 scfm) does not appear to be adequate to remove the residual concentrations from the underlying soil.

Cardno recommends evaluating the appropriate method(s) for assessing the risk to workers and customers at the on-site building related to the soil vapor concentrations. The site is not an active fueling facility, but is not a typical commercial building as vehicles are serviced in bays with large open doors and the workers deal with various automotive fluids on a daily basis as well as emissions from idling vehicles related to smog testing operations.

In Cardno's opinion, the soil vapor concentrations are the primary obstacle to closure and a site-specific risk evaluation is warranted given the current land use.

## LIMITATIONS

For documents cited that were not generated by Cardno, the data taken from those documents is used "as is" and is assumed to be accurate. Cardno does not guarantee the accuracy of this data and makes no warranties for the referenced work performed nor the inferences or conclusions stated in these documents.

This document and the work performed have been undertaken in good faith, with due diligence and with the expertise, experience, capability, and specialized knowledge necessary to perform the work in a good and workmanlike manner and within all accepted standards pertaining to providers of environmental services in California at the time of investigation. No soil engineering or geotechnical references are implied or should be inferred. The evaluation of the geologic conditions at the site for this investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points.

September 29, 2015  
 Cardno 2783C.Q153 Former Mobil Service Station 99105, Oakland, California

Please contact Mr. Scott Perkins, Cardno's project manager for this site, at [scott.perkins@cardno.com](mailto:scott.perkins@cardno.com) or at (707) 766-2000 with any questions regarding this report.

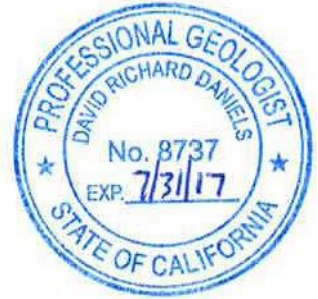
Sincerely,

*Christine M. Capwell*  
**SCANNED  
 IMAGE**

Christine M. Capwell  
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Enclosures:

References  
 Acronym List

Plate 1 Site Vicinity Map  
 Plate 2 Select Analytical Results  
 Plate 3 Groundwater Elevation Map

Table 1A Cumulative Groundwater Monitoring and Sampling Data  
 Table 1B Additional Cumulative Groundwater Monitoring and Sampling Data  
 Table 2 Well Construction Details  
 Table 3 Cumulative PID Readings, Vapor Wells

Appendix A Groundwater Sampling Protocol  
 Appendix B Field Data Sheets  
 Appendix C Laboratory Analytical Report  
 Appendix D Waste Disposal Documentation

cc: Ms. Karel Detterman, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor, Alameda, California, 94502

Mr. Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa, Suite 3341, Oakland, California, 94612

Messrs. On Dan and Nathan Lam, 200 El Dorado Terrace, San Francisco, California, 94112

September 29, 2015  
Cardno 2783C.Q153 Former Mobil Service Station 99105, Oakland, California

## **REFERENCES**

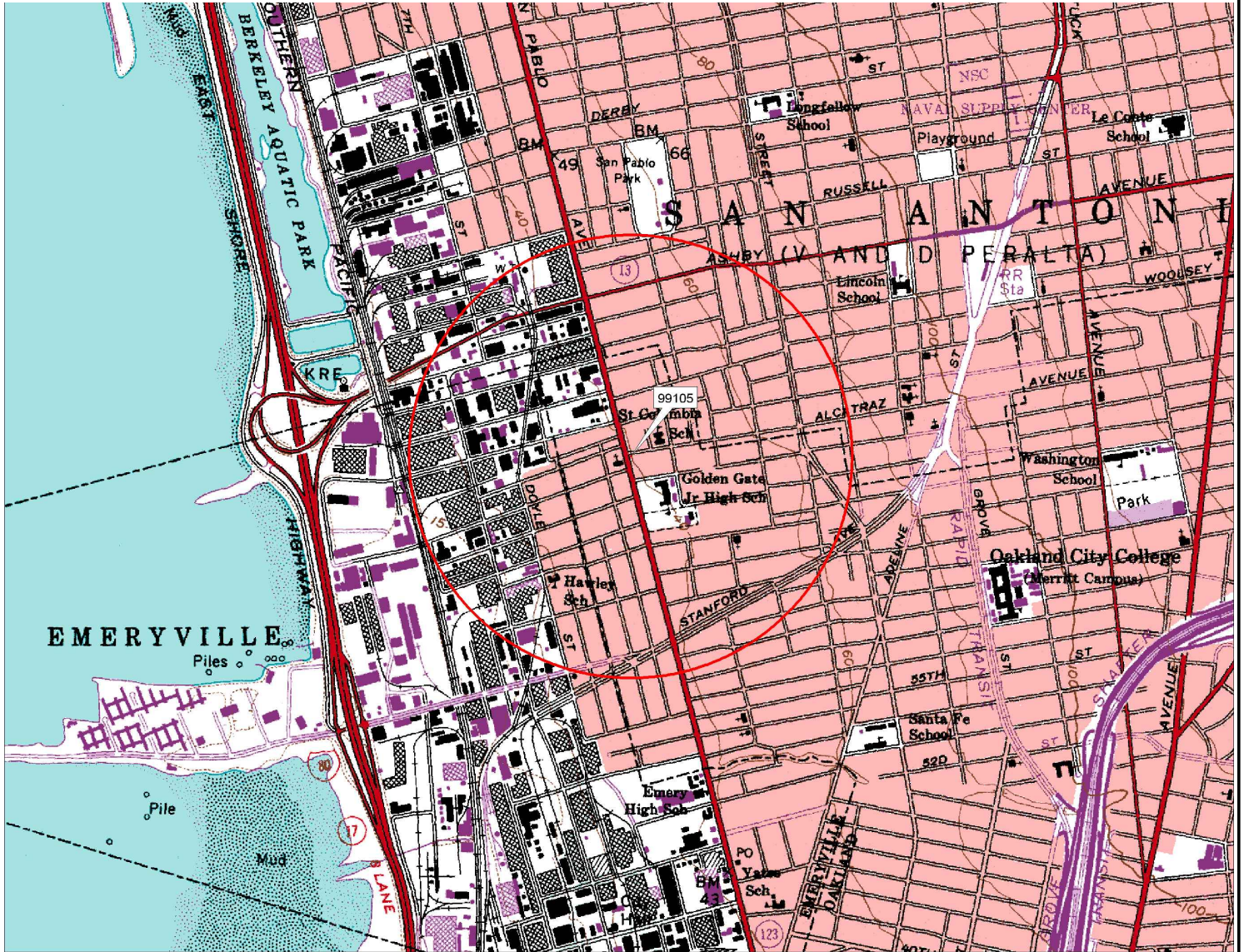
Cardno ERI. September 10, 2014. *Well Installation and Feasibility Study, Former Mobil Service Station 99105, 6301 San Pablo Avenue, Oakland, California.*

September 29, 2015  
 Cardno 2783C.Q153 Former Mobil Service Station 99105, Oakland, California

## ACRONYM LIST

µg/L	Micrograms per liter	NEPA	National Environmental Policy Act
µs	Microsiemens	NGVD	National Geodetic Vertical Datum
1,2-DCA	1,2-dichloroethane	NPDES	National Pollutant Discharge Elimination System
acfm	Actual cubic feet per minute	O&M	Operations and Maintenance
AS	Air sparge	ORP	Oxidation-reduction potential
bgs	Below ground surface	OSHA	Occupational Safety and Health Administration
BTEX	Benzene, toluene, ethylbenzene, and total xylenes	OVA	Organic vapor analyzer
CEQA	California Environmental Quality Act	P&ID	Process & Instrumentation Diagram
cfm	Cubic feet per minute	PAH	Polycyclic aromatic hydrocarbon
COC	Chain of Custody	PCB	Polychlorinated biphenyl
CPT	Cone Penetration (Penetrometer) Test	PCE	Tetrachloroethene or perchloroethylene
DIPE	Di-isopropyl ether	PID	Photo-ionization detector
DO	Dissolved oxygen	PLC	Programmable logic control
DOT	Department of Transportation	POTW	Publicly owned treatment works
DPE	Dual-phase extraction	ppmv	Parts per million by volume
DTW	Depth to water	PQL	Practical quantitation limit
EDB	1,2-dibromoethane	psi	Pounds per square inch
EPA	Environmental Protection Agency	PVC	Polyvinyl chloride
ESL	Environmental screening level	QA/QC	Quality assurance/quality control
ETBE	Ethyl tertiary butyl ether	RBSL	Risk-based screening levels
FID	Flame-ionization detector	RCRA	Resource Conservation and Recovery Act
fpm	Feet per minute	RL	Reporting limit
GAC	Granular activated carbon	scfm	Standard cubic feet per minute
gpd	Gallons per day	SSTL	Site-specific target level
gpm	Gallons per minute	STLC	Soluble threshold limit concentration
GWPTS	Groundwater pump and treat system	SVE	Soil vapor extraction
HVOC	Halogenated volatile organic compound	SVOC	Semivolatile organic compound
J	Estimated value between MDL and PQL (RL)	TAME	Tertiary amyl methyl ether
LEL	Lower explosive limit	TBA	Tertiary butyl alcohol
LPC	Liquid-phase carbon	TCE	Trichloroethene
LRP	Liquid-ring pump	TOC	Top of well casing elevation; datum is msl
LUFT	Leaking underground fuel tank	TOG	Total oil and grease
LUST	Leaking underground storage tank	TPHd	Total petroleum hydrocarbons as diesel
MCL	Maximum contaminant level	TPHg	Total petroleum hydrocarbons as gasoline
MDL	Method detection limit	TPHmo	Total petroleum hydrocarbons as motor oil
mg/kg	Milligrams per kilogram	TPHs	Total petroleum hydrocarbons as stoddard solvent
mg/L	Milligrams per liter	TRPH	Total recoverable petroleum hydrocarbons
mg/m <sup>3</sup>	Milligrams per cubic meter	UCL	Upper confidence level
MPE	Multi-phase extraction	USCS	Unified Soil Classification System
MRL	Method reporting limit	USGS	United States Geologic Survey
msl	Mean sea level	UST	Underground storage tank
MTBE	Methyl tertiary butyl ether	VCP	Voluntary Cleanup Program
MTCA	Model Toxics Control Act	VOC	Volatile organic compound
NAI	Natural attenuation indicators	VPC	Vapor-phase carbon
NAPL	Non-aqueous phase liquid		



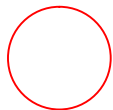


DELORME

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FN 2783TOPO

**EXPLANATION**



1/2-mile radius circle

**APPROXIMATE SCALE**



SOURCE:  
Modified from a map  
provided by  
DeLorme 3-D TopoQuads



**SITE VICINITY MAP**

FORMER MOBIL SERVICE STATION 99105  
6301 San Pablo Avenue  
Oakland, California

**PROJECT NO.**

2783

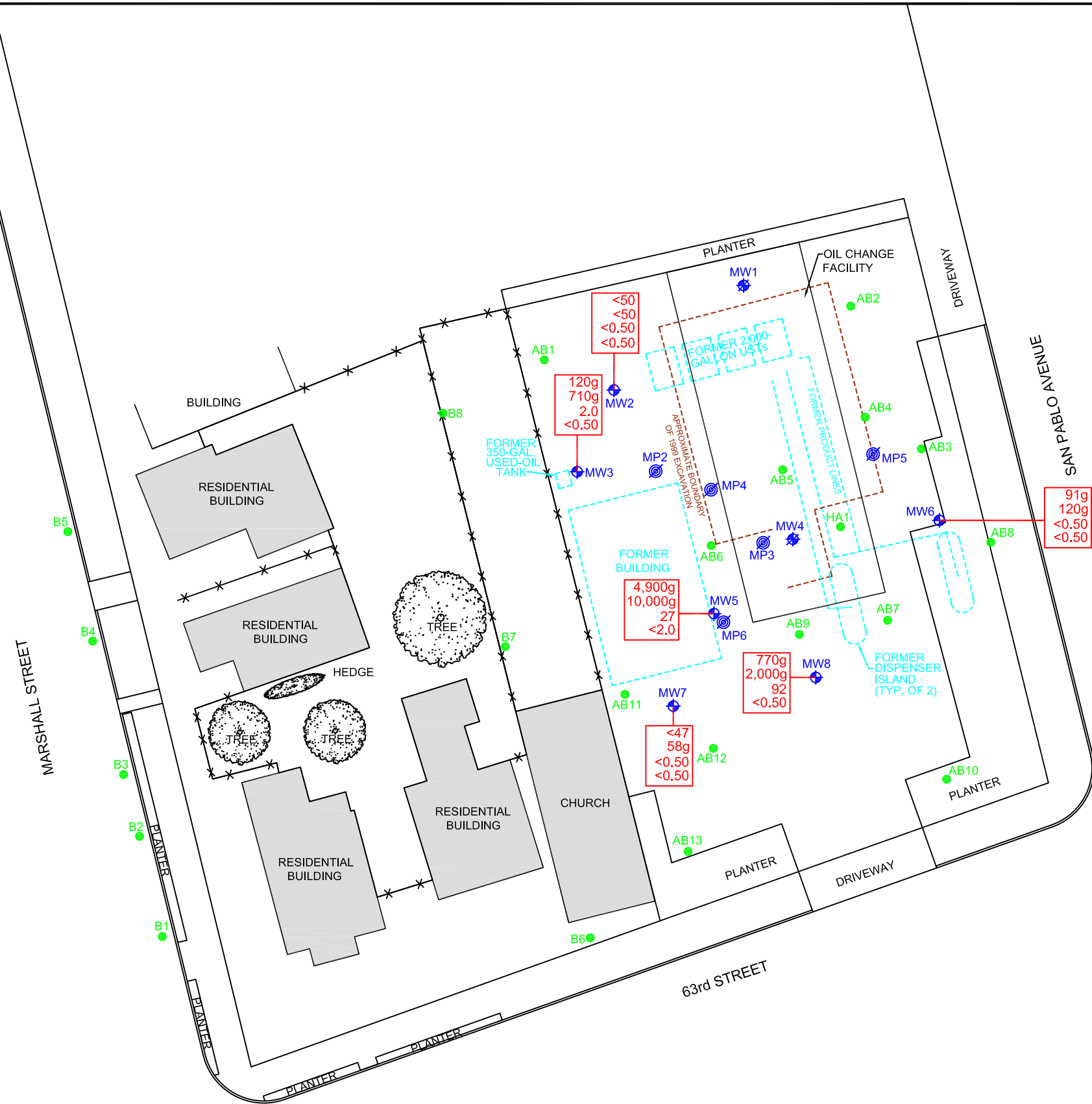
**PLATE**

1

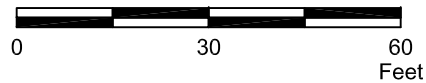
Analyte Concentrations in ug/L  
 Sampled August 14, 2015

Total Petroleum Hydrocarbons  
 as diesel  
 Total Petroleum Hydrocarbons  
 as gasoline  
 Benzene  
 Methyl Tertiary Butyl Ether

- < Less than the Stated Laboratory Reporting Limit
- ug/L Micrograms per Liter
- g Chromatographic pattern does not match that of the specified standard.



APPROXIMATE SCALE



FN 2783 15 3QTR QM

**SELECT ANALYTICAL RESULTS**  
**August 14, 2015**

FORMER MOBIL SERVICE STATION 99105  
 6301 San Pablo Avenue  
 Oakland, California

**EXPLANATION**

- MW8 Groundwater Monitoring Well
- MW4 Destroyed Groundwater Monitoring Well
- MP6 Destroyed Observation Well
- AB13 Soil Boring



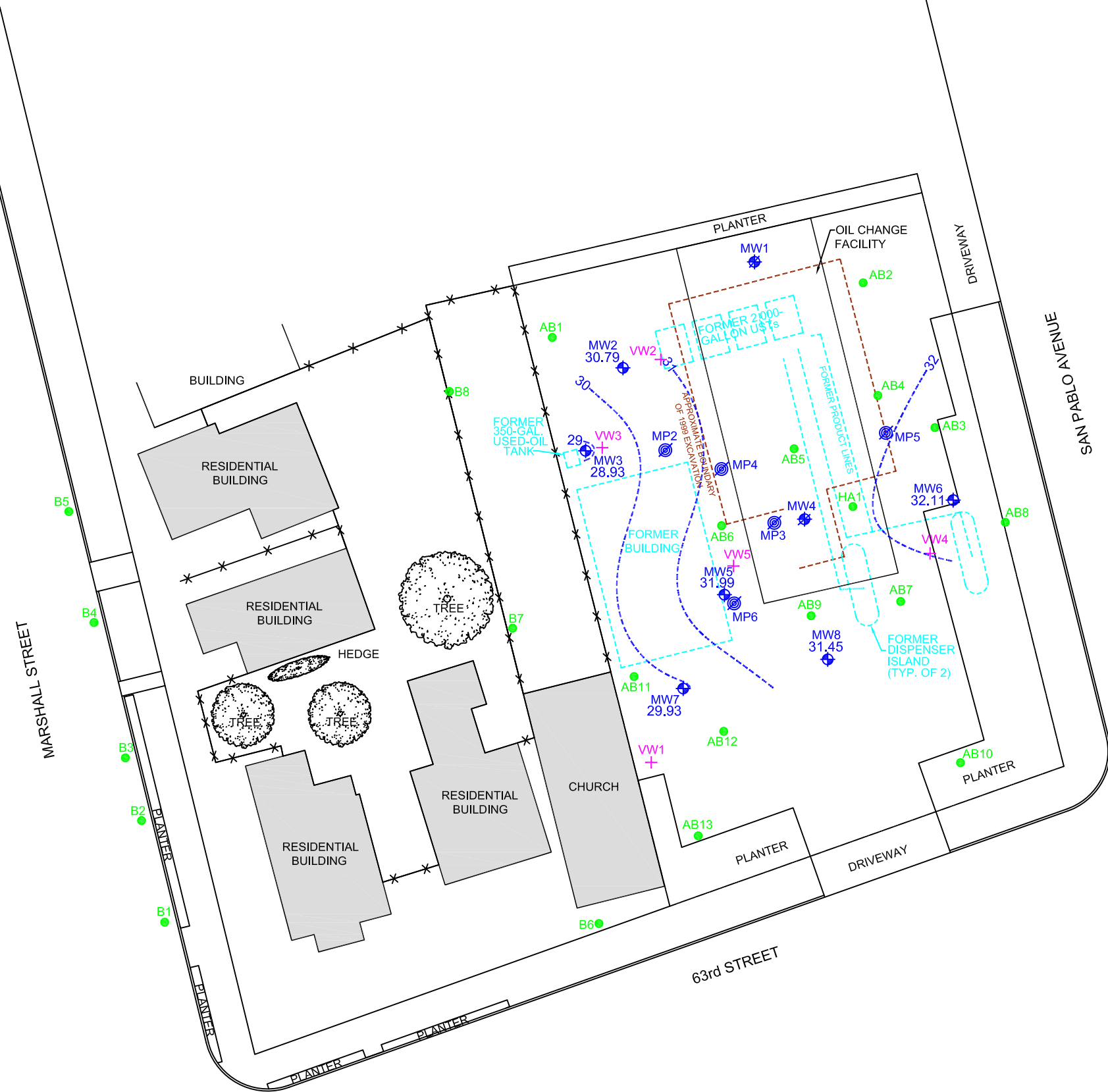
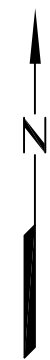
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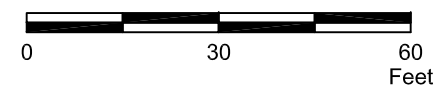
**PLATE**

2





APPROXIMATE SCALE



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**GROUNDWATER ELEVATION MAP**  
**August 14, 2015**  
 FORMER MOBIL SERVICE STATION 99105  
 6301 San Pablo Avenue  
 Oakland, California

**EXPLANATION**

- MW8 Groundwater Monitoring Well
- 31.45 Groundwater elevation in feet; datum is mean sea level
- MW4 Destroyed Groundwater Monitoring Well
- MP6 Destroyed Observation Well
- 32----- Line of Equal Groundwater Elevation; datum is mean sea level
- VW5 Soil Vapor Sampling Well
- AB13 Soil Boring

**PROJECT NO.**  
2783

**PLATE**  
3



**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Mobil Service Station 99105  
6301 San Pablo Avenue  
Oakland, California  
(Page 1 of 6)

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE		B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
								8020/8021 (µg/L)	8240/8260 (µg/L)				
<b>Environmental Screening Levels, Groundwater is Current or Potential Drinking Water Source (December 2013)</b>													
Table F-1a		---	---	---	---	100	100	5	5	1	40	30	20
MW1	03/14/96	32.79	4.50	28.29	No	<b>450</b>	<b>610</b>	---	---	0.75	0.54	1.5	<b>59</b>
MW1	05/21/96	32.79	5.64	27.15	No	ND	ND	---	---	ND	ND	ND	ND
MW1	08/13/96	32.79	9.76	23.03	No	ND	ND	---	---	ND	ND	ND	ND
MW1	11/08/96	32.79	10.24	22.55	No	ND	ND	ND	---	ND	0.92	ND	2.1
MW1	01/31/97	32.79	3.83	28.96	No	ND	ND	2.6	ND	ND	0.85	ND	ND
MW1	04/22/97	32.79	9.14	23.65	No	ND	ND	ND	---	ND	ND	ND	ND
MW1	07/29/97	a 32.79	10.18	22.61	No	60e	ND	<b>36</b>	---	0.84	0.95	ND	1.6
MW1	10/09/97	a 32.79	10.46	22.33	No	56e	ND	ND	---	ND	ND	ND	ND
MW1	01/23/98	a 32.79	3.95	28.84	No	33	ND	ND	---	ND	ND	ND	ND
MW1	04/22/98	32.79	5.33	27.46	No	ND	ND	ND	---	ND	ND	ND	ND
MW1	07/21/98	32.79	9.17	23.62	No	---	ND	ND	---	ND	ND	ND	ND
MW1	10/20/98	32.79	10.41	22.38	No	---	ND	ND	---	ND	ND	ND	ND
MW1	01/27/99	32.79	5.51	27.28	No	---	ND	ND	---	ND	ND	ND	ND
MW1	Apr-99	Destroyed during construction activities.											
MW2	03/14/96	32.80	4.51	28.29	No	<b>250</b>	<b>560</b>	---	---	<b>2.0</b>	0.96	4.3	11
MW2	05/21/96	32.80	5.65	27.15	No	<b>560</b>	<b>730</b>	---	---	<b>5.1</b>	1.4	6.7	5.9
MW2	08/13/96	32.80	10.14	22.66	No	<b>380b</b>	<b>490</b>	---	---	<b>25</b>	3.5	7.2	13
MW2	11/08/96	32.80	10.70	22.10	No	<b>160d</b>	<b>520</b>	<b>6.1</b>	---	<b>80</b>	2.7	14	<b>66</b>
MW2	01/31/97	32.80	3.84	28.96	No	<b>130b</b>	74	ND	---	ND	ND	ND	ND
MW2	04/22/97	32.80	9.61	23.19	No	<b>430</b>	<b>260</b>	ND	---	<b>2.7</b>	ND	2.5	ND
MW2	07/29/97	a 32.80	10.53	22.27	No	<b>150d</b>	<b>320</b>	ND	---	<b>28</b>	1.2	10	ND
MW2	10/09/97	a 32.80	10.87	21.93	No	<b>160b</b>	<b>460</b>	2.6	---	<b>43</b>	2.8	2.0	2.6
MW2	01/23/98	a 32.80	3.75	29.05	No	54	ND	ND	---	ND	ND	ND	ND
MW2	04/22/98	32.80	5.36	27.44	No	<b>540</b>	<b>180</b>	ND	---	<b>1.2</b>	0.3	0.4	ND
MW2	07/21/98	32.80	9.55	23.25	No	---	80	ND	---	<b>8.9</b>	2.1	0.6	2.5
MW2	10/20/98	32.80	10.75	22.05	No	---	50	ND	---	0.8	0.7	ND	0.8
MW2	01/27/99	32.80	5.53	27.27	No	---	ND	ND	---	0.6	ND	ND	ND
MW2	07/27/99	32.80	6.20	26.60	No	---	ND	ND	---	ND	0.6	ND	ND
MW2	12/08/99	32.80	9.98	22.82	No	---	ND	ND	---	<b>1.2</b>	0.43	ND	ND
MW2	10/25/00	39.34	11.30	28.04	No	---	<20	<0.30	---	<b>2.0</b>	0.59	0.46	1.3
MW2	01/15/01	39.34	9.41	29.93	No	---	<20	<0.30	---	<0.20	0.46	<0.20	<0.60
MW2	04/10/01	39.34	6.16	33.18	No	---	23	<1.0	---	0.28	<0.20	<0.20	<0.60
MW2	07/24/01	39.34	10.70	28.64	No	---	<50	<0.30	---	<0.20	0.93	<0.20	0.82
MW2	11/27/01	39.34	10.15	29.19	No	---	<50	<0.30	---	<b>1.2</b>	0.22	<0.20	<0.60
MW2	01/18/02	41.99	5.46	36.53	No	---	<50.0	1.40	---	<0.50	<0.50	<0.50	<0.50
MW2	04/10/02	41.99	6.48	35.51	No	---	<50.0	1.80	---	<0.50	<0.50	<0.50	<0.50
MW2	07/12/02	41.99	10.45	31.54	No	---	<50.0	<0.50	---	<0.50	<0.50	<0.50	<0.50
MW2	10/14/02	41.99	11.46	30.53	No	---	<50.0	<0.5	---	<0.5	4.1	0.6	4.0
MW2	01/20/03	41.99	5.39	36.60	No	---	<50.0	0.6	---	<0.50	<0.50	<0.50	<0.50
MW2	04/28/03	41.99	5.87	36.12	No	---	<50.0	<0.50	---	<0.50	<0.50	<0.50	<0.50

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Mobil Service Station 99105  
6301 San Pablo Avenue  
Oakland, California  
(Page 2 of 6)

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
<b>Environmental Screening Levels, Groundwater is Current or Potential Drinking Water Source (December 2013)</b>													
Table F-1a		---	---	---	---	100	100	5	5	1	40	30	20
MW2	07/15/03	41.99	10.31	31.68	No	---	<50	<0.5	---	<0.5	<0.5	<0.5	<0.5
MW2	10/08/03	41.99	11.20	30.79	No	---	<50	<0.5	---	<0.5	<0.5	<0.5	<0.5
MW2	01/15/04	41.99	5.36	36.63	No	---	63.3	1.0	---	0.70	<0.5	<0.5	<0.5
MW2	Well not sampled from 2004 to 2010.												
MW2	09/17/10	41.99	10.72	31.27	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	12/15/10	42.24	Well resurveyed.										
MW2	09/14/11	42.24	10.02	32.22	No	<b>110g</b>	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/18/12	42.24	11.24	31.00	No	---	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/27/12	42.24	9.65	32.59	No	<50	---	---	---	---	---	---	---
MW2	07/09/12	42.24	10.07	32.17	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/25/13	42.24	5.62	36.62	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	08/23/13	42.24	10.76	31.48	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/10/14	42.24	11.42	30.82	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	07/14/14	42.24	10.52	31.72	No	<49	<50	---	<0.50	<0.50	<0.50	<0.50	0.52
MW2	08/18/14	42.24	11.06	31.18	No	---	---	---	---	---	---	---	---
MW2	11/06/14	42.24	---	---	---	---	---	---	---	---	---	---	---
MW2	01/23/15	42.24	6.10	36.14	No	<50	62g	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	06/26/15	42.24	---	---	---	---	---	---	---	---	---	---	---
MW2	08/14/15	42.24	11.45	30.79	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW3	03/14/96	32.80	9.55	23.25	No	<b>1,200</b>	<b>4,200</b>	---	---	<b>220</b>	30	<b>140</b>	<b>520</b>
MW3	05/21/96	32.80	10.16	22.64	No	<b>2,800</b>	<b>8,500</b>	---	---	<b>710</b>	<b>110</b>	<b>440</b>	<b>1,700</b>
MW3	08/13/96	32.80	11.18	21.62	No	<b>2,300c</b>	<b>5,000</b>	---	---	<b>430</b>	ND	<b>200</b>	<b>360</b>
MW3	11/08/96	32.80	11.51	21.29	No	<b>2,900b</b>	<b>8,400</b>	<b>73</b>	ND	<b>890</b>	<b>82</b>	<b>790</b>	<b>1,700</b>
MW3	01/31/97	32.80	7.90	24.90	No	<b>7,500b</b>	<b>16,000</b>	ND	---	<b>660</b>	<b>85</b>	<b>960</b>	<b>1,800</b>
MW3	04/22/97	32.80	10.64	22.16	No	<b>2,700</b>	<b>8,000</b>	<b>200</b>	ND	<b>340</b>	33	<b>400</b>	<b>490</b>
MW3	07/29/97	a 32.80	11.36	21.44	No	<b>2,300b</b>	<b>9,800</b>	ND	---	<b>330</b>	ND	<b>530</b>	<b>530</b>
MW3	10/09/97	a 32.80	11.52	21.28	No	<b>2,600b</b>	<b>7,300</b>	<b>270</b>	ND	<b>300</b>	ND	<b>430</b>	<b>460</b>
MW3	01/23/98	a 32.80	7.50	25.30	No	<b>2,300</b>	<b>6,100</b>	ND	---	<b>190</b>	23	<b>330</b>	<b>320</b>
MW3	04/22/98	32.80	6.81	25.99	No	<b>2,600</b>	<b>4,900</b>	ND	ND	<b>140</b>	12	<b>250</b>	<b>230</b>
MW3	07/21/98	32.80	10.65	22.15	No	---	<b>7,400</b>	<b>74</b>	ND	<b>250</b>	16	<b>400</b>	<b>370</b>
MW3	10/20/98	32.80	11.57	21.23	No	---	<b>6,700</b>	ND	ND	<b>200</b>	18	<b>350</b>	<b>350</b>
MW3	01/27/99	32.80	9.11	23.69	No	---	<b>3,100</b>	<b>13</b>	---	<b>74</b>	4	<b>94</b>	<b>39</b>
MW3	07/27/99	32.80	7.27	25.53	No	---	<b>8,900</b>	ND	---	<b>170</b>	21	<b>360</b>	<b>440</b>
MW3	12/08/99	32.80	10.63	22.17	No	---	<b>4,800</b>	ND	---	<b>94</b>	13	<b>170</b>	<b>210</b>
MW3	10/25/00	39.27	12.08	27.19	No	---	<b>3,800</b>	<50	<5	<b>63</b>	2.9	<b>100</b>	<b>65</b>
MW3	01/15/01	39.27	10.29	28.98	No	---	<b>4,300</b>	<5.0	---	<b>76</b>	9.5	<b>47</b>	<b>76</b>
MW3	04/10/01	39.27	10.11	29.16	No	---	<b>2,700</b>	<20	---	<b>55</b>	4.4	<b>100</b>	<b>37</b>
MW3	07/24/01	39.27	11.57	27.70	No	---	<b>3,100</b>	<1.0	---	<b>110</b>	6.9	<b>110</b>	<b>81</b>

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Mobil Service Station 99105  
6301 San Pablo Avenue  
Oakland, California  
(Page 3 of 6)

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
<b>Environmental Screening Levels, Groundwater is Current or Potential Drinking Water Source (December 2013)</b>													
Table F-1a		---	---	---	---	100	100	5	5	1	40	30	20
MW3	11/27/01	39.27	10.93	28.34	No	---	<b>2,400</b>	<0.30	---	<b>47</b>	8.9	25	<b>35</b>
MW3	01/18/02	41.71	9.47	32.24	No	---	<b>1,130</b>	<b>13.6</b>	---	<b>15.3</b>	2.30	<b>42.0</b>	<b>24.6</b>
MW3	04/10/02	41.71	10.14	31.57	No	---	<b>916</b>	<b>11.2</b>	---	<b>35.1</b>	3.00	22.5	13.8
MW3	07/12/02	41.71	11.34	30.37	No	---	<b>2,330</b>	<b>15.4</b>	---	<b>60.5</b>	2.90	<b>39.8</b>	<b>50.9</b>
MW3	10/14/02	41.71	12.10	29.61	No	---	<b>2,550</b>	<0.5	---	<b>36.9</b>	3.8	20.3	<b>48.0</b>
MW3	01/20/03	41.71	9.20	32.51	No	---	<b>1,750</b>	<b>10.7</b>	---	<b>20.4</b>	<b>304.0</b>	<b>60.7</b>	<b>22.0</b>
MW3	04/28/03	41.71	9.37	32.34	No	---	<b>2,730</b>	<b>11.2</b>	---	<b>10.0</b>	2.7	<b>42.7</b>	<b>20.1</b>
MW3	07/15/03	41.71	11.15	30.56	No	---	<b>1,790</b>	<b>5.6</b>	---	<b>68.8</b>	3.6	<b>39.0</b>	<b>44.7</b>
MW3	10/08/03	41.71	11.89	29.82	No	---	<b>1,320</b>	<b>7.1</b>	---	<b>35.1</b>	4.0	23.6	<b>31.8</b>
MW3	01/15/04	41.71	9.16	32.55	No	---	<b>791</b>	3.4	---	<b>24.4</b>	1.3	<b>40.1</b>	14.7
MW3	Well not sampled from 2004 to 2010.												
MW3	09/17/10	41.71	11.46	30.25	No	99	<b>2,500</b>	---	<0.50	<b>2.6</b>	0.31f	1.8	1.8
MW3	12/15/10	42.18	Well resurveyed.										
MW3	09/14/11	42.18	11.37	30.81	No	<b>270g</b>	<b>1,200</b>	---	<0.50	<b>18</b>	0.95	1.7	1.3
MW3	01/18/12	42.18	12.11	30.07	No	---	<b>910g</b>	---	<0.50	0.89	<0.50	<0.50	0.88
MW3	01/27/12	42.18	10.18	32.00	No	<b>1,000g</b>	---	---	---	---	---	---	---
MW3	07/09/12	42.18	11.15	31.03	No	<b>420g</b>	<b>350g</b>	---	<0.50	<b>7.9</b>	<0.50	<0.50	<0.50
MW3	01/25/13	42.18	9.41	32.77	No	<b>120g</b>	<b>390g</b>	---	<0.50	<b>2.8</b>	<0.50	<0.50	<0.50
MW3	08/23/13	42.18	11.67	30.51	No	<b>310g</b>	<b>640</b>	---	<0.50	<b>1.1</b>	<0.50	<0.50	<0.50
MW3	01/10/14	42.18	12.13	30.05	No	<b>160g</b>	<b>720g</b>	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW3	07/14/14	42.18	11.55	30.63	No	<b>320g</b>	<b>1,100g</b>	---	<0.50	<b>1.8</b>	<0.50	<0.50	0.53
MW3	08/18/14	42.18	11.83	30.35	No	---	---	---	---	---	---	---	---
MW3	11/06/14	42.18	---	---	---	---	---	---	---	---	---	---	---
MW3	01/23/15	41.18	10.19	30.99	No	<b>440g</b>	<b>750g</b>	---	<0.50	<b>5.6</b>	1.7	0.79	1.0
MW3	06/26/15	42.18	---	---	---	---	---	---	---	---	---	---	---
MW3	08/14/15	41.18	12.25	28.93	No	<b>120g</b>	<b>710g</b>	---	<0.50	<b>2.0</b>	0.50	<0.50	1.3
MW4	03/14/96	31.50	4.92	26.58	No	<b>3,500</b>	<b>12,000</b>	---	---	<b>2,200</b>	<b>140</b>	<b>880</b>	<b>2,000</b>
MW4	05/21/96	31.50	8.60	22.90	No	<b>4,200</b>	<b>11,000</b>	---	---	<b>1,700</b>	ND	<b>930</b>	<b>470</b>
MW4	08/13/96	31.50	10.02	21.50	0.02	---	---	---	---	---	---	---	---
MW4	11/08/96	31.50	10.28	21.33	0.15	---	---	---	---	---	---	---	---
MW4	01/31/97	31.50	7.88	23.62	No	<b>8,200b</b>	<b>23,000</b>	ND	---	<b>980</b>	<b>68</b>	<b>1,100</b>	<b>1,400</b>
MW4	04/22/97	31.50	7.40	24.10	No	<b>4,500</b>	<b>8,800</b>	ND	---	<b>950</b>	ND	<b>610</b>	<b>130</b>
MW4	07/29/97	31.50	9.85	21.74	0.12	---	---	---	---	---	---	---	---
MW4	10/09/97	31.50	10.35	21.38	0.30	---	---	---	---	---	---	---	---
MW4	01/23/98	31.50	4.68	27.51	0.92	---	---	---	---	---	---	---	---
MW4	04/22/98	31.50	6.39	25.22	0.14	---	---	---	---	---	---	---	---
MW4	07/21/98	31.50	7.10	24.55	0.20	---	---	---	---	---	---	---	---
MW4	10/20/98	31.50	9.03	22.60	0.17	---	---	---	---	---	---	---	---
MW4	01/27/99	31.50	5.37	26.18	0.07	---	---	---	---	---	---	---	---
MW4	Apr-99	Destroyed during construction activities.											

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Mobil Service Station 99105  
6301 San Pablo Avenue  
Oakland, California  
(Page 4 of 6)

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
<b>Environmental Screening Levels, Groundwater is Current or Potential Drinking Water Source (December 2013)</b>													
Table F-1a		---	---	---	---	100	100	5	5	1	40	30	20
MW5	10/25/00	39.18	10.92	28.26	No	---	<b>2,500</b>	<b>&lt;20</b>	---	<b>79</b>	3.8	<b>66</b>	<20
MW5	01/15/01	39.18	8.32	30.86	No	---	<b>3,900</b>	<5.0	---	<b>120</b>	7.9	<b>280</b>	<b>52</b>
MW5	04/10/01	39.18	7.21	31.97	No	---	<b>8,000</b>	<b>&lt;50</b>	<5	<b>280</b>	4.4	<b>410</b>	<b>100</b>
MW5	07/24/01	39.18	9.54	29.64	No	---	<b>7,000</b>	<1.0	---	<b>360</b>	7.4	<b>380</b>	<b>67</b>
MW5	11/27/01	39.18	8.84	30.34	No	---	<b>5,000</b>	<b>8.9</b>	<2	<b>64</b>	11	<b>340</b>	<b>52</b>
MW5	01/18/02	41.59	6.52	35.07	No	---	<b>6,330</b>	<b>21.8</b>	---	<b>99.1</b>	2.30	<b>103</b>	19.6
MW5	04/10/02	41.59	7.20	34.39	No	---	<b>2,140</b>	<2.50	---	<b>275</b>	8.00	<b>183</b>	<b>24.5</b>
MW5	07/12/02	41.59	8.83	32.76	No	---	<b>3,940</b>	<b>20</b>	<0.50	<b>350</b>	<0.50	<b>268</b>	14
MW5	10/14/02	41.59	10.74	30.85	No	---	<b>4,040</b>	<2.5	---	<b>98.5</b>	9.0	<b>169</b>	<b>29.0</b>
MW5	01/20/03	41.59	6.45	35.14	No	---	<b>7,660</b>	<b>59</b>	<0.50	<b>421</b>	10.0	<b>743</b>	<b>96.0</b>
MW5	04/28/03	41.59	6.68	34.91	No	---	<b>7,510</b>	<b>47</b>	<0.50	<b>403</b>	5.5	<b>524</b>	<b>50.5</b>
MW5	07/15/03	41.59	8.68	32.91	No	---	<b>6,080</b>	<b>52.9</b>	<2.5	<b>406</b>	19.8	<b>412</b>	<b>34.7</b>
MW5	10/08/03	41.59	10.56	31.03	No	---	<b>2,460</b>	<b>54.3</b>	<0.5	<b>160</b>	12.8	<b>173</b>	<b>31.7</b>
MW5	01/15/04	41.59	6.56	35.03	No	---	<b>4,630</b>	<b>37.4</b>	<0.5	<b>181</b>	6.0	<b>312</b>	<b>38.5</b>
MW5	Well not sampled from 2004 to 2010.												
MW5	09/17/10	41.59	9.99	31.60	No	<b>5,700</b>	<b>6,600</b>	---	<5.0	<b>19</b>	<5.0	16	1.4f
MW5	12/15/10	41.86	Well resurveyed.										
MW5	09/14/11	41.86	7.33	34.53	No	<b>1,600g</b>	<b>7,200</b>	---	<2.0	<b>23</b>	<2.0	8.6	<2.0
MW5	01/18/12	41.86	9.46	32.40	No	---	<b>3,600g</b>	---	<1.0	<b>14</b>	<1.0	7.6	<1.0
MW5	01/27/12	41.86	8.81	33.05	No	<b>3,100g</b>	---	---	---	---	---	---	---
MW5	07/09/12	41.86	8.91	32.95	Sheen	<b>29,000g</b>	<b>9,300g</b>	---	<2.5	<b>21</b>	<2.5	6.9	<2.5
MW5	01/25/13	41.86	6.01	35.85	Sheen	<b>22,000g</b>	<b>4,900g</b>	---	<2.0	<b>46</b>	<2.0	4.5	<2.0
MW5	08/23/13	41.86	9.12	32.74	No	<b>34,000g</b>	<b>17,000</b>	---	<2.0	<b>17</b>	<2.0	6.3	<2.0
MW5	01/10/14	41.86	10.30	31.56	No	<b>36,000g</b>	<b>62,000</b>	---	<2.0	<b>4.7</b>	<2.0	3.5	<2.0
MW5	07/14/14	41.86	8.70	33.16	No	<b>88,000g</b>	<b>90,000g</b>	---	<5.0	<b>100</b>	<5.0	12	<5.0
MW5	08/18/14	41.86	9.40	32.46	No	---	---	---	---	---	---	---	---
MW5	08/22/14	41.86	9.60	32.26	No	<b>5,800g</b>	<b>5,100</b>	---	<5.0	<b>520</b>	<5.0	<b>320</b>	<b>81</b>
MW5	11/06/14	41.86	---	---	---	---	---	---	---	---	---	---	---
MW5	01/23/15	41.86	7.30	34.56	No	<b>19,000g</b>	<b>3,300g</b>	---	<5.0	<b>130</b>	<5.0	<b>65</b>	<b>26</b>
MW5	06/26/15	41.86	---	---	---	---	---	---	---	---	---	---	---
MW5	08/14/15	41.86	9.87	31.99	Sheen	<b>4,900g</b>	<b>10,000g</b>	---	<2.0	<b>27</b>	<2.0	24	17
MW6	08/18/14	42.00	Well surveyed.										
MW6	08/18/14	42.00	13.12	28.88	No	<b>350g</b>	<b>410g</b>	---	0.60	<0.50	<0.50	<0.50	<0.50
MW6	08/22/14	42.00	11.20	30.80	No	<b>1,000g</b>	<b>1,500g</b>	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW6	11/06/14	42.00	10.77	31.23	No	<b>640g</b>	<b>840g</b>	---	0.80	<0.50	<0.50	<0.50	<0.50
MW6	01/23/15	42.00	7.38	34.62	No	<b>170g</b>	<b>120g</b>	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW6	06/26/15	42.00	9.11	32.89	No	<b>160g</b>	<b>170g</b>	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW6	08/14/15	42.00	9.89	32.11	No	91g	<b>120g</b>	---	<0.50	<0.50	<0.50	<0.50	<0.50



**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Mobil Service Station 99105  
6301 San Pablo Avenue  
Oakland, California  
(Page 5 of 6)

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
<b>Environmental Screening Levels, Groundwater is Current or Potential Drinking Water Source (December 2013)</b>													
Table F-1a		---	---	---	---	100	100	5	5	1	40	30	20
MW7	08/18/14	41.34	Well surveyed.										
MW7	08/18/14	41.34	13.81	27.53	No	<51	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW7	08/22/14	41.34	Dry		---	---	---	---	---	---	---	---	---
MW7	11/06/14	41.34	11.73	29.61	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW7	01/23/15	41.34	10.81	30.53	No	57g	<b>140</b>	---	<0.50	<b>4.2</b>	2.8	6.4	6.1
MW7	06/26/15	41.34	10.28	31.06	No	49g	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW7	08/14/15	41.34	11.41	29.93	No	<47	58g	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW8	08/18/14	41.30	Well surveyed.										
MW8	08/18/14	41.30	12.18	29.12	No	<b>440g</b>	<b>1,600</b>	---	<0.50	<b>39</b>	<0.50	19	<b>44</b>
MW8	08/22/14	41.30	13.10	28.20	No	<b>350g</b>	<b>950g</b>	---	<0.50	<b>5.7</b>	<0.50	4.2	6.4
MW8	11/06/14	41.30	10.96	30.34	No	<b>260g</b>	<b>910g</b>	---	<0.50	<b>54</b>	<0.50	25	11
MW8	01/23/15	41.30	6.83	34.47	No	<b>440g</b>	<b>1,000g</b>	---	<0.50	<b>110</b>	1.8	19	10
MW8	06/26/15	41.30	8.46	32.84	No	<b>650g</b>	<b>1,100</b>	---	<2.0	<b>100</b>	<2.0	24	6.2
MW8	08/14/15	41.30	9.85	31.45	No	<b>770g</b>	<b>2,000g</b>	---	<0.50	<b>92</b>	1.2	14	13
<b>Grab Groundwater Samples</b>													
<i>Former Gasoline Tank Cavity</i>													
TW1	01/04/96	---	6.00	---	No	<b>700</b>	ND	---	---	ND	ND	ND	ND
<i>Used-Oil Tank Cavity</i>													
WW1	01/04/96	---	3.00	---	No	---	ND	---	---	ND	ND	ND	ND
AB1	03/05/98	---	4.5	---	No	---	<b>1,600</b>	ND	---	<b>31</b>	5.3	79	<b>130</b>
AB2	03/05/98	---	8.0	---	No	---	ND	ND	---	ND	2.9	0.9	5.7
AB3	03/05/98	---	5.5	---	No	---	<b>6,800</b>	<b>230</b>	---	<b>680</b>	<b>100</b>	<b>1,500</b>	<b>2,300</b>
AB4	03/05/98	---	4.0	---	No	---	<b>8,500</b>	ND	---	<b>240</b>	ND	<b>260</b>	<b>720</b>
AB6	03/05/98	---	4.5	---	No	---	<b>12,000</b>	ND	---	<b>350</b>	ND	<b>310</b>	<b>100</b>
AB9	03/05/98	---	6.0	---	No	---	<b>1,000</b>	ND	---	<b>57</b>	12	44	<b>93</b>
AB10	03/05/98	---	2.0	---	No	---	<b>200</b>	ND	---	<b>3.0</b>	1.2	3.2	2.8
AB11	03/05/98	---	8.5	---	No	---	ND	ND	---	ND	ND	ND	ND
AB12	03/05/98	---	6.0	---	No	---	<b>8,800</b>	<b>37</b>	---	<b>660</b>	50	<b>630</b>	<b>940</b>
AB13	03/05/98	---	8.0	---	No	---	<b>210</b>	ND	---	<b>11</b>	0.8	10	15
HA1	01/25/00	---	---	---	---	---	<b>&lt;500</b>	<5.0	---	<0.3	<0.3	<0.3	<0.6
B1	11/18/10	---	Dry		---	---	---	---	---	---	---	---	---
B2	11/19/10	---	Dry		---	---	---	---	---	---	---	---	---
B3	11/19/10	---	8.45	---	---	<50	<50	---	<0.50	<0.50	<0.50	0.053f	0.21f
B4	11/19/10	---	Dry		---	---	---	---	---	---	---	---	---
B5	11/18/10	---	8.95	---	---	<50	<50	---	<0.50	<0.50	<0.50	0.047f	0.21f

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Mobil Service Station 99105  
6301 San Pablo Avenue  
Oakland, California  
(Page 6 of 6)

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
<b>Environmental Screening Levels, Groundwater is Current or Potential Drinking Water Source (December 2013)</b>													
Table F-1a		---	---	---	---	100	100	5	5	1	40	30	20
W-15-B6	06/19/12	---	15	---	---	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
W-15-B7	06/19/12	---	15	---	---	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
W-9.5-B8	06/19/12	---	9.5	---	---	<b>230g</b>	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50

Notes:	Adapted from ETIC's <i>Report of Groundwater Monitoring, Third Quarter 2010</i> .												
TOC Elev.	=	Top of casing elevation.											
DTW	=	Depth to water.											
GW Elev.	=	Groundwater elevation.											
NAPL	=	Non-aqueous phase liquid.											
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.											
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B.											
MTBE 8020/8021	=	Methyl tertiary butyl ether analyzed using EPA Method 8020 or 8021B.											
MTBE 8240/8260	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B or 8240.											
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.											
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.											
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.											
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.											
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.											
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method 8260B.											
EDB	=	1,2-dibromoethane analyzed using EPA Method 8260B.											
Ethanol	=	Ethanol analyzed using EPA Method 8260B.											
ND	=	Not detected at or above the laboratory reporting limit.											
µg/L	=	Micrograms per liter.											
<	=	Less than the stated laboratory reporting limit.											
---	=	Not analyzed/Not applicable.											
a	=	Well sampled using no-purge method.											
b	=	Diesel and unidentified hydrocarbons <C15.											
c	=	Diesel and unidentified hydrocarbons <C15>C25.											
d	=	Diesel and unidentified hydrocarbons >C20.											
e	=	Unidentified hydrocarbons >C18.											
f	=	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit.											
g	=	Chromatographic pattern does not match that of the specified standard.											

**TABLE 1B**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Mobil Service Station 99105  
6301 San Pablo Avenue  
Oakland, California  
(Page 1 of 3)

Well ID	Sampling Date	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
<b>Environmental Screening Levels, Groundwater is Current or Potential Drinking Water Source (December 2013)</b>								
Table F-1a		---	---	---	12	0.50	0.05	---
MW1	03/14/96 - 01/27/99	Not analyzed for these analytes						
MW1	Apr-99	Destroyed during construction activities.						
MW2	03/14/96 - 01/15/04	Not analyzed for these analytes						
MW2	09/17/10	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---
MW2	09/14/11	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50
MW2	01/18/12	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50
MW2	01/27/12	---	---	---	---	---	---	---
MW2	07/09/12	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW2	01/25/13	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW2	08/23/13	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW2	01/10/14	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW2	07/14/14	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW2	08/18/14	---	---	---	---	---	---	---
MW2	08/22/14	---	---	---	---	---	---	---
MW2	11/06/14	---	---	---	---	---	---	---
MW2	01/23/15	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW2	06/26/15	---	---	---	---	---	---	---
MW2	08/14/15	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW3	03/14/96 - 01/15/04	Not analyzed for these analytes						
MW3	09/17/10	0.17f	<0.50	<0.50	9.8f	1.9	<0.50	---
MW3	09/14/11	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50
MW3	01/18/12	<0.50	<0.50	<0.50	23	<0.50	<0.50	<50
MW3	01/27/12	---	---	---	---	---	---	---
MW3	07/09/12	<0.50	<0.50	<0.50	9.1	1.1	<0.50	---
MW3	01/25/13	<0.50	<0.50	<0.50	9.6	1.1	<0.50	---
MW3	08/23/13	<0.50	<0.50	<0.50	7.2	0.90	<0.50	---
MW3	01/10/14	<0.50	<0.50	<0.50	12	1.1	<0.50	---
MW3	07/14/14	<0.50	<0.50	<0.50	11	1.1	<0.50	---
MW3	08/18/14	---	---	---	---	---	---	---
MW3	08/22/14	---	---	---	---	---	---	---
MW3	11/06/14	---	---	---	---	---	---	---
MW3	01/23/15	<0.50	<0.50	<0.50	8.1	0.70	<0.50	---
MW3	06/26/15	---	---	---	---	---	---	---
MW3	08/14/15	<0.50	<0.50	<0.50	<5.0	1.3	<0.50	---
MW4	03/14/96 - 01/27/99	Not analyzed for these analytes						
MW4	Apr-99	Destroyed during construction activities.						

**TABLE 1B**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Mobil Service Station 99105  
6301 San Pablo Avenue  
Oakland, California  
(Page 2 of 3)

Well ID	Sampling Date	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
<b>Environmental Screening Levels, Groundwater is Current or Potential Drinking Water Source (December 2013)</b>								
Table F-1a		---	---	---	12	0.50	0.05	---
MW5	10/25/00 - 01/15/04	Not analyzed for these analytes						
MW5	09/17/10	<5.0	<5.0	<5.0	<100	<5.0	<5.0	---
MW5	09/14/11	<2.0	<2.0	<2.0	25	<2.0	<2.0	<200
MW5	01/18/12	<1.0	<1.0	<1.0	37	<1.0	<1.0	<100
MW5	01/27/12	---	---	---	---	---	---	---
MW5	07/09/12	<2.5	<2.5	<2.5	36	<2.5	<2.5	---
MW5	01/25/13	<2.0	<2.0	<2.0	45	<2.0	<2.0	---
MW5	08/23/13	<2.0	<2.0	<2.0	42	<2.0	<2.0	---
MW5	01/10/14	<2.0	<2.0	<2.0	36	<2.0	<2.0	---
MW5	07/14/14	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---
MW5	08/18/14	---	---	---	---	---	---	---
MW5	08/22/14	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---
MW5	11/06/14	---	---	---	---	---	---	---
MW5	01/23/15	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---
MW5	06/26/15	---	---	---	---	---	---	---
MW5	08/14/15	<2.0	<2.0	<2.0	23	<2.0	<2.0	---
MW6	08/18/14	<0.50	<0.50	<0.50	14	1.1	<0.50	---
MW6	08/22/14	<0.50	<0.50	<0.50	12	<0.50	<0.50	---
MW6	11/06/14	<0.50	<0.50	<0.50	14	1.3	<0.50	---
MW6	01/23/15	<0.50	<0.50	<0.50	6.7	<0.50	<0.50	---
MW6	06/26/15	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW6	08/14/15	<0.50	<0.50	<0.50	<5.0	0.59	<0.50	---
MW7	08/18/14	<0.50	<0.50	<0.50	21	3.1	<0.50	---
MW7	08/22/14	Dry	---	---	---	---	---	---
MW7	11/06/14	<0.50	<0.50	<0.50	15	3.9	<0.50	---
MW7	01/23/15	<0.50	<0.50	<0.50	23	5.1	<0.50	---
MW7	06/26/15	<0.50	<0.50	<0.50	11	3.4	<0.50	---
MW7	08/14/15	<0.50	<0.50	<0.50	6.6	2.5	<0.50	---
MW8	08/18/14	<0.50	<0.50	<0.50	20	0.78	<0.50	---
MW8	08/22/14	<0.50	<0.50	<0.50	31	<0.50	<0.50	---
MW8	11/06/14	<0.50	<0.50	<0.50	34	2.8	<0.50	---
MW8	01/23/15	<0.50	<0.50	<0.50	20	<0.50	<0.50	---
MW8	06/26/15	<2.0	<2.0	<2.0	20	<2.0	<2.0	---
MW8	08/14/15	<0.50	<0.50	<0.50	15	<0.50	<0.50	---

**TABLE 1B  
ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**

Former Mobil Service Station 99105  
6301 San Pablo Avenue  
Oakland, California  
(Page 3 of 3)

Well ID	Sampling Date	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
<b>Environmental Screening Levels, Groundwater is Current or Potential Drinking Water Source (December 2013)</b>								
Table F-1a		---	---	---	12	0.50	0.05	---

**Grab Groundwater Samples**

Not analyzed for these analytes prior to 2010.

B1	11/18/10	---	---	---	---	---	---	---
B3	11/19/10	---	---	---	---	<b>8.7</b>	---	---
B4	11/19/10	---	---	---	---	---	---	---
B5	11/18/10	---	---	---	---	0.099f	---	---
W-15-B6	06/19/12	<0.50	<0.50	<0.50	<5.0	---	---	---
W-15-B7	06/19/12	<0.50	<0.50	<0.50	<5.0	---	---	---
W-9.5-B8	06/19/12	<0.50	<0.50	<0.50	<5.0	---	---	---

Notes: Adapted from ETIC's *Report of Groundwater Monitoring, Third Quarter 2010*.

TOC Elev.	= Top of casing elevation.
DTW	= Depth to water.
GW Elev.	= Groundwater elevation.
NAPL	= Non-aqueous phase liquid.
TPHd	= Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	= Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B.
MTBE 8020/8021	= Methyl tertiary butyl ether analyzed using EPA Method 8020 or 8021B.
MTBE 8240/8260	= Methyl tertiary butyl ether analyzed using EPA Method 8260B or 8240.
BTEX	= Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
DIPE	= Di-isopropyl ether analyzed using EPA Method 8260B.
ETBE	= Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
TAME	= Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	= Tertiary butyl alcohol analyzed using EPA Method 8260B.
1,2-DCA	= 1,2-dichloroethane analyzed using EPA Method 8260B.
EDB	= 1,2-dibromoethane analyzed using EPA Method 8260B.
Ethanol	= Ethanol analyzed using EPA Method 8260B.
ND	= Not detected at or above the laboratory reporting limit.
µg/L	= Micrograms per liter.
<	= Less than the stated laboratory reporting limit.
---	= Not analyzed/Not applicable.
a	= Well sampled using no-purge method.
b	= Diesel and unidentified hydrocarbons <C15.
c	= Diesel and unidentified hydrocarbons <C15>C25.
d	= Diesel and unidentified hydrocarbons >C20.
e	= Unidentified hydrocarbons >C18.
f	= Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit.
g	= Chromatographic pattern does not match that of the specified standard.



**TABLE 2**  
**WELL CONSTRUCTION DETAILS**  
Former Mobil Service Station 99105  
6301 San Pablo Avenue  
Oakland, California  
(Page 1 of 1)

Well ID	Well Installation Date	Well Destruction Date	TOC Elevation (feet)	Well Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material
MW1	03/01/96	Apr-99	32.79	PVC	21.5	21.5	10	4	5-20	0.010	4.5-21.5	#12 Sand
MW2	03/01/96	---	42.24	PVC	21.5	21.5	10	4	5-20	0.010	4.5-21.5	#12 Sand
MW3	03/01/96	---	42.18	PVC	21.5	21.5	10	4	5-20	0.010	4.5-21.5	#12 Sand
MW4	03/01/96	Apr-99	31.50	PVC	26.5	25	10	4	5-25	0.010	4.5-21.5	#12 Sand
MW5	09/06/00	---	41.86	PVC	21.5	21.5	10	4	5-20	0.010	4-21.5	#2/12 Sand
MW6	08/11/14	---	42.00	PVC	18	15	12	4	5-15	0.020	4-15	#2/12 Sand
MW7	08/11/14	---	41.34	PVC	16	15	10	2	5-15	0.020	4-15	#2/12 Sand
MW8	08/15/14	---	41.30	PVC	16	15	12	4	5-15	0.020	4-15	#2/12 Sand
VW1	11/01/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW2	11/02/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW3	11/01/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW4	11/02/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW5	11/02/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
MP1	11/16/98	1998	---	PVC	23	23	1.5	1	4-23	0.020	2.5-23	#3 Sand
MP2	11/16/98	1998	---	PVC	20	20	1.5	1	5-20	0.020	4-20	#3 Sand
MP3	11/16/98	1998	---	PVC	18	18	1.5	1	3-18	0.020	2-18	#3 Sand
MP4	11/16/98	1998	---	PVC	18	18	1.5	1	3-18	0.020	2-18	#3 Sand
MP5	11/16/98	1998	---	PVC	18	18	1.5	1	3-18	0.020	2-18	#3 Sand
MP6	11/16/98	1998	---	PVC	17.5	17.5	1.5	1	3.5-17.5	0.020	2.5-17.5	#3 Sand
SVS1	06/18/12	---	38.78	PVC/Stainless Steel	5.5	5	3.25	0.25	4.75-5	0.010	4.5-5	#3 Sand
SVS2	06/18/12	---	41.05	PVC/Stainless Steel	5.5	5	3.25	0.25	4.75-5	0.010	4.5-5	#3 Sand
SVS3	06/18/12	---	42.64	PVC/Stainless Steel	5.5	5	3.25	0.25	4.75-5	0.010	4.5-5	#3 Sand

Notes:

- TOC = Top of casing.
- PVC = Polyvinyl chloride.
- = Not applicable/Not available.

**TABLE 3**  
**CUMULATIVE PID READINGS, VAPOR WELLS**

Former Mobil Service Station 99105

6301 San Pablo Avenue

Oakland, California

(Page 1 of 1)

Sample Date	VW1 (ppm)	VW2 (ppm)	VW3 (ppm)	VW4 (ppm)	VW5 (ppm)
08/01/14	559	118	146	>7,000	500
08/18/14	317	1.9	85.8	1,780	395
08/22/14	62	0.4	122	>9,000	473
12/31/14	75.2	Wet	178.1	1,499	165.4
01/23/15	1.2	2.2	64	3,680	18
06/26/15	Wet	0.7	79.5	2,319	Wet
08/14/15	Wet	6.2	16.6	2,740	Wet

Notes:

ppm = Parts per million.

**APPENDIX A**  
**GROUNDWATER SAMPLING PROTOCOL**

## GROUNDWATER SAMPLING PROTOCOL

The static water level and separate-phase product level, if present, in each well that contained water and/or separate-phase product are measured with a ORS Interface Probe, which is accurate to the nearest 0.01 foot. To calculate groundwater elevations and evaluate groundwater gradient, depth to water (DTW) levels are subtracted from top of casing elevations.

Groundwater samples collected for subjective evaluation are collected by gently lowering approximately half the length of a clean Teflon® or polypropylene bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples are checked for measurable free-phase hydrocarbons or sheen. If appropriate, free-phase hydrocarbons are removed from the well.

Before water samples are collected from the groundwater monitoring wells, the wells are purged until a minimum of three well casing volumes is purged and stabilization of the temperature, pH, and conductivity is obtained. Water samples from the wells that do not obtain stability of the temperature, pH, and conductivity are considered to be "grab samples." The quantity of water purged from each well is calculated as follows:

1 well casing volume =  $\pi r^2 h (7.48)$  where:

r	=	radius of the well casing in feet
h	=	column of water in the well in feet (depth to bottom - depth to water)
7.48	=	conversion constant from cubic feet to gallons
$\pi$	=	ratio of the circumference of a circle to its diameter

Gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

The wells are purged using a submersible pump. Prior to use at the site and between wells the pump is cleaned.

Five gallons of water are placed in three 15-gallon tubs. Liquinox detergent is added to the first tub of water. The pump and tubing are submerged in the first tub and the water is pumped through the pump. The process is repeated in the second and third tub.

After purging, each well is allowed to recharge to at least 80% of the initial water level. Water samples from wells that do not recover at least 80% (due to slow recharging of the well) between purging and sampling are considered to be "grab samples." Water samples are collected with a new, disposable Teflon® or polypropylene bailer. The groundwater is carefully poured into selected sample containers (40-milliliter [ml] glass vials, 1,000-ml glass amber bottles, etc.), which are filled so as to produce a positive meniscus.

Depending on the required analysis, each sample container is preserved with hydrochloric acid, nitric acid, etc., or it is preservative free. The type of preservative used for each sample is specified on the Chain-of-Custody record.

Each vial and glass amber bottle is sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace, which would allow volatilization to occur. The samples are promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain-of-Custody record, to a California state-certified laboratory.

Water generated during purging and cleaning is contained and transported off site for treatment and disposal.

**APPENDIX B**  
**FIELD DATA SHEETS**





# Daily Field Report

Project ID #:	99105	ERI Job #	2783
Subject:	M & S	Date:	8/14/15
Equipment Used:	DTW Tape, sub-pump	Sheet:	1 of 1
Name(s):	JOE D. LEWIS		
Time Arrived On Site:	Time Departed Site:	Total Travel:	

ON SITE		0430
H&S meeting		0430-0445
opened wells		0445-0500
SET up decon/pump		0500-0530
Purged wells	MW 2, MW3, MW5, MW6, MW7, MW8	0555-0741
Sampled wells	MW 2, MW3, MW5, MW6, MW7, MW8	0800-0935
OFF SITE		1030
Q&BB		0945

Decon water - 24 gal.  
Purge water - 455 gal.  
TOTAL WATER - 69.5 gal.







**GROUNDWATER SAMPLING FIELD LOG**

Client Name: Exxon Mobil  
 Location: 99105  
 Field Crew: JOE D. LEWIS

Cardno ERI Job #: 2783  
 Field Cleaning Performed: \_\_\_\_\_  
 Analysis: \_\_\_\_\_

Date: 8/14/15 Page 1 of 1  
 Case Volume = (TD - DTW) x F where F =  
 0.163 for 2" inside-diameter well casing  
 0.652 for 4" inside-diameter well casing  
 1.457 for 6" inside-diameter well casing

Well ID	Time	Case Volume	Purge Volume	Temp	Cond	pH	Post-Purge DTW	80% Recharge	BB	40mil	Amber	DO	ORP	Comments Well Box Condition
MW 2	0555	4.65	5				13.30	N						Dry @ 10 gal.
	0558		5	20.1	184.1	6.32	8/14/15							did not recharge
	0601		10	19.4	183.1	6.21	MW 2							in 2 hrs
			15				0800							
MW 3	0617	3.86	4				13.85	N						Purged out of order
	0620		4	19.2	344	6.30	8/14/15							due to location used
	0623		8	19.0	347	6.33	MW 3							Separate pump.
			12				0815							dry @ 9.5 gal.
MW 5	0640	6.56	7				16.80	N						Purged out of order
	0644		7	20.9	379	6.54	8/14/15							used separate pump
	0649		14	20.3	394	6.46	MW 5							dry @ 17.5 gal.
			21				0830							did not recharge in 2 hrs.
MW 7	0705	0.50	1				13.20	N						Dry @ 1 gal.
	0706		1	19.8	471	6.60	8/14/15							did not recharge
			2				MW 7							in 2 hrs.
			3				0900							
MW 6	0719	2.98	3				13.05	N						Dry @ 7.5 gal.
	0720		3	19.7	465	6.84	8/14/15							did not recharge
	0722		6	19.6	466	6.79	MW 6							in 2 hrs.
			9				0920							
MW 8	0737	2.88	3				12.73	N						Did not recharge
	0739		3	22.0	397	6.86	8/14/15							in 2 hrs
	0741		6	21.7	398	6.83	MW 8							
			9				0935							
QLBB														
							8/14/15							
							QLBB							
							0945							

did not recharge in 2 hrs

did not recharge in 2 hrs.

# Daily Field Report

<b>Date:</b>		<b>8/14/15</b>	
<b>ExxonMobil Pt ID #:</b>		<b>99105</b>	
<b>ERI site #:</b>		<b>2783</b>	
<b>Project Manager:</b>		<b>Scott Perkins</b>	
<b>Subject:</b>		<b>PID readings</b>	
<b>Equipment on site:</b>		<b>None</b>	
<b>Total Pages:</b>		<b>1</b>	
<b>Personnel:</b>		<b>DE</b>	
<b>On Site:</b>	<b>545</b>	<b>Status:</b>	<b>N/A</b>
<ul style="list-style-type: none"> <li>• Arrive on site, gather PPE, review JSAs and sign in</li> <li>• Prepare equipment</li> <li>• Open all VW wells lids prior to starting</li> <li>• Take readings on VW wells with PID <ul style="list-style-type: none"> <li>○ VW1 - Wet</li> <li>○ VW2 – 6.2 ppm</li> <li>○ VW3 – 16.6 ppm</li> <li>○ VW4 – 2740 ppm</li> <li>○ VW5 - Wet</li> </ul> </li> <li>• Close all wells, gather equipment and depart site</li> </ul>			
<b>Global Observation</b>			
<b>Off Site:</b>	<b>800</b>	<b>Status:</b>	<b>N/A</b>
<b>Drums/Waste Onsite:</b>	<b>No</b>		
<b>System Type</b>	<b>Sample Date</b>	<b>Permit Expiration Date</b>	
<b>Water</b>	<b>N/A</b>	<b>N/A</b>	
<b>Air</b>	<b>N/A</b>	<b>N/A</b>	
<b>V-INF (ppmv):</b>	<b>N/A</b>	<b>SVE FLOW: N/A</b>	
<b>V-INT1/2 (ppmv):</b>	<b>N/A</b>	<b>SVE HRS:</b>	
<b>V-EFF (ppmv):</b>	<b>N/A</b>	<b>WELL PUMPS ON:</b>	
<b>VAPOR WELLS ON:</b>	<b>N/A</b>	<b>BIO:</b>	
<b>SPARGE WELLS ON:</b>	<b>N/A</b>		



## **APPENDIX C**

### **LABORATORY ANALYTICAL REPORT**



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WORK ORDER NUMBER: 15-08-1117

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno ERI

Client Project Name: ExxonMobil 99105/022783C

Attention: Greg Gurss  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

*Cecile de Guia*

Approved for release on 08/28/2015 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶



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



# Contents

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Work Order Number: 15-08-1117

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 08/15/15. They were assigned to Work Order 15-08-1117.

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  $\leq 15$  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.

**Subcontractor Information:**

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

**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.

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.



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## Sample Summary

Client: Cardno ERI	Work Order: 15-08-1117
601 North McDowell Blvd.	Project Name: ExxonMobil 99105/022783C
Petaluma, CA 94954-2312	PO Number:
	Date/Time Received: 08/15/15 08:40
	Number of Containers: 62

Attn: Greg Gurss

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
W-MW2	15-08-1117-1	08/14/15 08:00	10	Aqueous
W-MW3	15-08-1117-2	08/14/15 08:15	10	Aqueous
W-MW5	15-08-1117-3	08/14/15 08:30	10	Aqueous
W-MW6	15-08-1117-4	08/14/15 09:20	10	Aqueous
W-MW7	15-08-1117-5	08/14/15 09:00	10	Aqueous
W-MW8	15-08-1117-6	08/14/15 09:35	10	Aqueous
QCBB	15-08-1117-7	08/14/15 09:45	2	Aqueous



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## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 99105/022783C

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-MW2</b>	<b>15-08-1117-1-I</b>	<b>08/14/15 08:00</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>08/18/15</b>	<b>08/19/15 01:41</b>	<b>150818B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		50		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		100		68-140			
<b>W-MW3</b>	<b>15-08-1117-2-I</b>	<b>08/14/15 08:15</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>08/18/15</b>	<b>08/19/15 01:58</b>	<b>150818B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		120		50		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		95		68-140			
<b>W-MW5</b>	<b>15-08-1117-3-I</b>	<b>08/14/15 08:30</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>08/18/15</b>	<b>08/19/15 02:16</b>	<b>150818B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		4900		47		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		98		68-140			
<b>W-MW6</b>	<b>15-08-1117-4-I</b>	<b>08/14/15 09:20</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>08/18/15</b>	<b>08/19/15 02:33</b>	<b>150818B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		91		50		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		100		68-140			
<b>W-MW7</b>	<b>15-08-1117-5-I</b>	<b>08/14/15 09:00</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>08/18/15</b>	<b>08/19/15 02:51</b>	<b>150818B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		47		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		94		68-140			

Return to Contents

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



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## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 99105/022783C

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-MW8</b>	<b>15-08-1117-6-I</b>	<b>08/14/15 09:35</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>08/18/15</b>	<b>08/19/15 03:08</b>	<b>150818B09</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	770	50	1.00	SG,HD

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	93	68-140	

<b>Method Blank</b>	<b>099-15-304-1140</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>08/18/15</b>	<b>08/19/15 00:48</b>	<b>150818B09</b>
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	104	68-140	

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



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## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 99105/022783C

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-MW2</b>	<b>15-08-1117-1-E</b>	<b>08/14/15 08:00</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>08/26/15</b>	<b>08/26/15 13:09</b>	<b>150826L050</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		72		38-134			
<b>W-MW3</b>	<b>15-08-1117-2-E</b>	<b>08/14/15 08:15</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>08/26/15</b>	<b>08/26/15 14:48</b>	<b>150826L050</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		710		50		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		87		38-134			
<b>W-MW5</b>	<b>15-08-1117-3-E</b>	<b>08/14/15 08:30</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>08/26/15</b>	<b>08/26/15 15:22</b>	<b>150826L050</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		10000		250		5.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		119		38-134			
<b>W-MW6</b>	<b>15-08-1117-4-E</b>	<b>08/14/15 09:20</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>08/26/15</b>	<b>08/26/15 15:55</b>	<b>150826L050</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		120		50		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		77		38-134			
<b>W-MW7</b>	<b>15-08-1117-5-E</b>	<b>08/14/15 09:00</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>08/26/15</b>	<b>08/26/15 16:28</b>	<b>150826L050</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		58		50		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		75		38-134			

Return to Contents

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





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## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 99105/022783C

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-MW8</b>	<b>15-08-1117-6-F</b>	<b>08/14/15 09:35</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>08/27/15</b>	<b>08/27/15 11:56</b>	<b>150827L018</b>

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	2000	50	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	125	38-134	

Method Blank	099-12-436-10292	N/A	Aqueous	GC 22	08/26/15	08/26/15 12:36	150826L050
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	72	38-134	

Method Blank	099-12-436-10293	N/A	Aqueous	GC 22	08/27/15	08/27/15 11:22	150827L018
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	75	38-134	

Return to Contents

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



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## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 99105/022783C

Page 1 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-MW2	15-08-1117-1-A	08/14/15 08:00	Aqueous	GC/MS L	08/17/15	08/17/15 18:44	150817L057

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	95	68-120		
Dibromofluoromethane	115	80-127		
1,2-Dichloroethane-d4	120	80-128		
Toluene-d8	102	80-120		

Return to Contents

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



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## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 99105/022783C

Page 2 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-MW3	15-08-1117-2-A	08/14/15 08:15	Aqueous	GC/MS L	08/17/15	08/17/15 19:13	150817L057

Parameter	Result	RL	DF	Qualifiers
Benzene	2.0	0.50	1.00	
Toluene	0.50	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	1.3	0.50	1.00	
Xylenes (total)	1.3	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	1.3	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	102	68-120		
Dibromofluoromethane	112	80-127		
1,2-Dichloroethane-d4	118	80-128		
Toluene-d8	103	80-120		

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

## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 99105/022783C

Page 3 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-MW5	15-08-1117-3-B	08/14/15 08:30	Aqueous	GC/MS L	08/19/15	08/19/15 16:22	150819L042

Parameter	Result	RL	DF	Qualifiers
Benzene	27	2.0	4.00	
Toluene	ND	2.0	4.00	
Ethylbenzene	24	2.0	4.00	
o-Xylene	ND	2.0	4.00	
p/m-Xylene	17	2.0	4.00	
Xylenes (total)	17	2.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	4.00	
Tert-Butyl Alcohol (TBA)	23	2.0	4.00	
Diisopropyl Ether (DIPE)	ND	2.0	4.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	4.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	4.00	
1,2-Dibromoethane	ND	2.0	4.00	
1,2-Dichloroethane	ND	2.0	4.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	116	68-120		
Dibromofluoromethane	103	80-127		
1,2-Dichloroethane-d4	109	80-128		
Toluene-d8	98	80-120		


  
Return to Contents

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



Calscience

## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-MW6	15-08-1117-4-A	08/14/15 09:20	Aqueous	GC/MS L	08/17/15	08/18/15 06:01	150817L030

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	0.59	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	97	68-120		
Dibromofluoromethane	117	80-127		
1,2-Dichloroethane-d4	119	80-128		
Toluene-d8	104	80-120		

Return to Contents

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



Calscience

## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-MW7	15-08-1117-5-A	08/14/15 09:00	Aqueous	GC/MS L	08/17/15	08/18/15 06:30	150817L030

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	6.6	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	2.5	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	96	68-120		
Dibromofluoromethane	116	80-127		
1,2-Dichloroethane-d4	116	80-128		
Toluene-d8	101	80-120		

Return to Contents

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

## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-MW8	15-08-1117-6-A	08/14/15 09:35	Aqueous	GC/MS L	08/17/15	08/18/15 06:59	150817L030

Parameter	Result	RL	DF	Qualifiers
Toluene	1.2	0.50	1.00	
Ethylbenzene	14	0.50	1.00	
o-Xylene	0.59	0.50	1.00	
p/m-Xylene	12	0.50	1.00	
Xylenes (total)	13	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	15	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	103	68-120		
Dibromofluoromethane	115	80-127		
1,2-Dichloroethane-d4	116	80-128		
Toluene-d8	103	80-120		

W-MW8	15-08-1117-6-B	08/14/15 09:35	Aqueous	GC/MS L	08/19/15	08/19/15 15:52	150819L042
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Parameter	Result	RL	DF	Qualifiers
Benzene	92	2.5	5.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	105	68-120		
Dibromofluoromethane	102	80-127		
1,2-Dichloroethane-d4	104	80-128		
Toluene-d8	97	80-120		

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



Calscience

## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-884-1275</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>08/17/15</b>	<b>08/17/15 21:53</b>	<b>150817L030</b>

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	68-120	
Dibromofluoromethane	109	80-127	
1,2-Dichloroethane-d4	109	80-128	
Toluene-d8	100	80-120	

Return to Contents

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





Calscience

## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-884-1276	N/A	Aqueous	GC/MS L	08/17/15	08/17/15 10:27	150817L057

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	68-120	
Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	100	80-120	

Return to Contents

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



Calscience

## Analytical Report

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-884-1278</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>08/19/15</b>	<b>08/19/15 11:38</b>	<b>150819L042</b>

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	68-120	
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	95	80-128	
Toluene-d8	97	80-120	

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



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
W-MW2	Sample	Aqueous	GC 22	08/26/15	08/26/15 13:09	150826S017
W-MW2	Matrix Spike	Aqueous	GC 22	08/26/15	08/26/15 13:42	150826S017
W-MW2	Matrix Spike Duplicate	Aqueous	GC 22	08/26/15	08/26/15 14:15	150826S017

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1905	95	1861	93	68-122	2	0-18	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-08-1496-1	Sample	Aqueous	GC 22	08/27/15	08/27/15 12:29	150827S003
15-08-1496-1	Matrix Spike	Aqueous	GC 22	08/27/15	08/27/15 13:02	150827S003
15-08-1496-1	Matrix Spike Duplicate	Aqueous	GC 22	08/27/15	08/27/15 13:35	150827S003

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	186.4	2000	2074	94	2041	93	68-122	2	0-18	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-08-1019-7	Sample	Aqueous	GC/MS L	08/17/15	08/17/15 11:30	150817S002
15-08-1019-7	Matrix Spike	Aqueous	GC/MS L	08/17/15	08/17/15 12:28	150817S002
15-08-1019-7	Matrix Spike Duplicate	Aqueous	GC/MS L	08/17/15	08/17/15 12:57	150817S002

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.59	106	11.11	111	75-125	5	0-20	
Toluene	ND	10.00	10.53	105	11.14	111	75-125	6	0-20	
Ethylbenzene	ND	10.00	10.35	104	10.70	107	75-125	3	0-20	
o-Xylene	ND	10.00	10.01	100	10.40	104	75-127	4	0-20	
p/m-Xylene	ND	20.00	20.70	103	21.53	108	75-125	4	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	10.21	102	10.54	105	71-131	3	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	48.21	96	56.16	112	20-180	15	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	10.65	107	11.07	111	64-136	4	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.860	99	10.29	103	73-133	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.177	92	9.609	96	75-125	5	0-20	
1,2-Dibromoethane	ND	10.00	10.11	101	10.43	104	75-126	3	0-20	
1,2-Dichloroethane	3.007	10.00	13.43	104	13.90	109	75-127	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-08-0872-1	Sample	Aqueous	GC/MS L	08/17/15	08/17/15 22:21	150817S026
15-08-0872-1	Matrix Spike	Aqueous	GC/MS L	08/17/15	08/17/15 22:50	150817S026
15-08-0872-1	Matrix Spike Duplicate	Aqueous	GC/MS L	08/17/15	08/17/15 23:19	150817S026

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	11.58	116	11.68	117	75-125	1	0-20	
Toluene	ND	10.00	11.59	116	11.72	117	75-125	1	0-20	
Ethylbenzene	ND	10.00	11.30	113	11.51	115	75-125	2	0-20	
o-Xylene	ND	10.00	10.89	109	11.05	110	75-127	1	0-20	
p/m-Xylene	ND	20.00	22.58	113	22.95	115	75-125	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	11.50	115	11.37	114	71-131	1	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	46.73	93	48.06	96	20-180	3	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	12.10	121	12.02	120	64-136	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	10.48	105	10.70	107	73-133	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	8.856	89	9.223	92	75-125	4	0-20	
1,2-Dibromoethane	ND	10.00	10.73	107	10.86	109	75-126	1	0-20	
1,2-Dichloroethane	ND	10.00	11.46	115	11.39	114	75-127	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-08-1276-4	Sample	Aqueous	GC/MS L	08/19/15	08/19/15 12:52	150819S005
15-08-1276-4	Matrix Spike	Aqueous	GC/MS L	08/19/15	08/19/15 14:52	150819S005
15-08-1276-4	Matrix Spike Duplicate	Aqueous	GC/MS L	08/19/15	08/19/15 15:22	150819S005

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	80.00	81.34	102	83.20	104	75-125	2	0-20	
Toluene	ND	80.00	78.60	98	82.10	103	75-125	4	0-20	
Ethylbenzene	ND	80.00	84.10	105	86.66	108	75-125	3	0-20	
o-Xylene	ND	80.00	81.58	102	84.69	106	75-127	4	0-20	
p/m-Xylene	ND	160.0	165.4	103	171.5	107	75-125	4	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	80.00	65.21	82	49.79	62	71-131	27	0-20	HX,BA
Tert-Butyl Alcohol (TBA)	ND	400.0	957.1	239	1128	282	20-180	16	0-40	HX
Diisopropyl Ether (DIPE)	ND	80.00	87.86	110	86.46	108	64-136	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	80.00	39.38	49	22.21	28	73-133	56	0-20	HX,BA
Tert-Amyl-Methyl Ether (TAME)	ND	80.00	26.26	33	13.37	17	75-125	65	0-20	HX,BA
1,2-Dibromoethane	ND	80.00	83.31	104	83.82	105	75-126	1	0-20	
1,2-Dichloroethane	ND	80.00	84.44	106	87.36	109	75-127	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 3510C  
Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-304-1140	LCS	Aqueous	GC 47	08/18/15	08/19/15 01:06	150818B09			
099-15-304-1140	LCSD	Aqueous	GC 47	08/18/15	08/19/15 01:23	150818B09			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	2078	104	2137	107	75-117	3	0-13	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - LCS

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-12-436-10292</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>08/26/15</b>	<b>08/26/15 12:02</b>	<b>150826L050</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		2000	2014	101	78-120	


  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-12-436-10293</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>08/27/15</b>	<b>08/27/15 10:49</b>	<b>150827L018</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		2000	1937	97	78-120	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-884-1275</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>08/17/15</b>	<b>08/17/15 21:15</b>	<b>150817L030</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	10.42	104	80-120	73-127	
Toluene		10.00	10.54	105	80-120	73-127	
Ethylbenzene		10.00	10.35	104	80-120	73-127	
o-Xylene		10.00	9.996	100	80-120	73-127	
p/m-Xylene		20.00	20.82	104	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	10.34	103	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	54.78	110	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	11.17	112	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	9.848	98	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	8.146	81	80-120	73-127	
1,2-Dibromoethane		10.00	9.791	98	80-120	73-127	
1,2-Dichloroethane		10.00	10.20	102	80-122	73-129	

Total number of LCS compounds: 12

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-884-1276</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>08/17/15</b>	<b>08/17/15 09:47</b>	<b>150817L057</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	10.64	106	80-120	73-127	
Toluene		10.00	10.60	106	80-120	73-127	
Ethylbenzene		10.00	10.94	109	80-120	73-127	
o-Xylene		10.00	10.44	104	80-120	73-127	
p/m-Xylene		20.00	21.91	110	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	9.548	95	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	53.14	106	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	10.38	104	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	9.644	96	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	8.948	89	80-120	73-127	
1,2-Dibromoethane		10.00	9.958	100	80-120	73-127	
1,2-Dichloroethane		10.00	10.06	101	80-122	73-129	

Total number of LCS compounds: 12

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno ERI  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 08/15/15  
Work Order: 15-08-1117  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 99105/022783C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-884-1278</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>08/19/15</b>	<b>08/19/15 10:57</b>	<b>150819L042</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	9.362	94	80-120	73-127	
Toluene		10.00	9.454	95	80-120	73-127	
Ethylbenzene		10.00	10.36	104	80-120	73-127	
o-Xylene		10.00	10.28	103	80-120	73-127	
p/m-Xylene		20.00	20.87	104	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	9.043	90	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	55.73	111	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	9.630	96	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	9.610	96	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	8.626	86	80-120	73-127	
1,2-Dibromoethane		10.00	9.143	91	80-120	73-127	
1,2-Dichloroethane		10.00	9.292	93	80-122	73-129	

Total number of LCS compounds: 12

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Sample Analysis Summary Report

Work Order: 15-08-1117

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3510C	974	GC 47	1
EPA 8015B (M)	EPA 5030C	797	GC 22	2
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B	EPA 5030C	849	GC/MS L	2

## Glossary of Terms and Qualifiers

Work Order: 15-08-1117

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
AZ	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.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to suspected matrix interference.
BB	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.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.
IL	Relative percent difference out of control.
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.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.

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  $\leq 15$  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.







800-322-5555 www.gso.com

1117

Ship From  
CAL SCIENCE- CONCORD  
ALAN KEMP  
5063 COMMERCIAL CIRCLE  
/H  
CONCORD, CA 94520

Tracking #: 528940727

SDS



Ship To  
CEL  
SAMPLE RECEIVING  
7440 LINCOLN WAY  
GARDEN GROVE, CA 92841

**ORC**  
GARDEN GROVE

**A**

COD: \$0.00  
Weight: 0 lb(s)  
Reference:  
CARDNO ERI  
Delivery Instructions:

N92648A



41267461

Signature Type: REQUIRED

Print Date: 8/14/2015 3:17 PM

**LABEL INSTRUCTIONS:**

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

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

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SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno ERI

DATE: 08 / 19 / 2015

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

Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 2.7 °C (w/ 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

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 681

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 681

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 802

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBz<sub>na</sub>  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_) :  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 802

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, z<sub>na</sub> = Zn(CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 714

**APPENDIX D**  
**WASTE DISPOSAL DOCUMENTATION**

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.		Manifest Document No. 278320150814	2. Page 1 of 1	
3. Generator's Name and Mailing address ExxonMobil Environmental Services/Manpower Contractor 3700 W. 190 <sup>th</sup> St. NTO #1106, Torrance, CA 90504		6301 San Pablo Ave. Oakland, CA EM(99105)				
4. Generator's Phone: (310) 212 2938						
5. Transporter 1 Company Name CARDNO	6. US EPA ID Number	A. State Transporter's ID		707-766-2000		
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter 1 Phone				
9. Designated Facility Name and Site Address INSTRAT INC. 1105 C. AIRPORT ROAD RIO VISTA, CA 94571	10. US EPA ID Number	C. State Transporter's ID				
		D. Transporter 2 Phone				
		E. State Facility's ID				
		F. Facility's Phone		530-753-1829		
11. WASTE DESCRIPTION			12. Containers	13. Total Quantity	14. Unit Wt./Vol.	
a. NON-HAZARDOUS PURGE WATER			No. Type			
			01 Trailer	69.5	GAL	
b.						
c.						
d.						
G. Additional Descriptions for Materials Listed Above 022783CX 45L 400700114 62230 to take 9/28/15			H. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information						
<b>16. GENERATOR'S CERTIFICATION:</b> I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.						
Printed/Typed Name On behalf of ExxonMobil Azar R. Magdanov			Signature 		Date Month Day Year 08 14 15	
17. Transporter 1 Acknowledgement of Receipt of Materials			Signature 		Date Month Day Year 09 18 15	
18. Transporter 2 Acknowledgement of Receipt of Materials			Signature		Date	
19. Discrepancy Indication Space 70 GALLONS						
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.			Signature 		Date Month Day Year 9 18 15	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY