ExxonMobil
Environmental Services Company
4096 Piedmont Avenue #194
Oakland, California 94611
510 547 8196 Telephone
510 547 8706 Facsimile

Jennifer C. Sedlachek
Project Manager

ExxonMobil

August 10, 2012

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

RE: Former Exxon RAS #70234/3450 35th Avenue, Oakland, California.

Dear Ms. Jakub:

Attached for your review and comment is a copy of the letter report entitled ***Semi-Annual Groundwater Monitoring Report, Second Quarter 2012,*** dated August 10, 2012, for the above-referenced site. The report was prepared by Cardno ERI 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 ERI's ***Semi-Annual Groundwater Monitoring Report, Second Quarter 2012,*** dated August 10, 2012

cc: w/ attachment
Mr. Shay Wideman, The Valero Companies, Environmental Liability Management

w/o attachment
Ms. Janice A. Jacobson, Cardno ERI

Cardno ERI
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August 10, 2012
Cardno ERI 247613.Q122

Ms. Jennifer C. Sedlachek
ExxonMobil Environmental Services
4096 Piedmont Avenue #194
Oakland, California 94611

SUBJECT **Semi-Annual Groundwater Monitoring Report, Second Quarter 2012**
Former Exxon Service Station 70234
3450 35th Avenue, Oakland, California

Alameda County RO#2515

INTRODUCTION

At the request of ExxonMobil Environmental Services (EMES), on behalf of Exxon Mobil Corporation, Cardno ERI performed second quarter 2012 groundwater monitoring and sampling activities at the subject site. Relevant plates, tables, and appendices are included at the end of this report. Currently, the site is vacant.

GROUNDWATER MONITORING AND SAMPLING SUMMARY

Gauging and sampling date:	05/24/12
Wells gauged and sampled:	MW4 through MW6, MW8, MW9, RW1
Well gauged only:	MW7
Presence of NAPL:	Not observed
Concurrently Sampled:	ConocoPhillips, 3420 35th Avenue
Data Provided by:	Conestoga-Rovers & Associates (CRA) Emeryville, California
Laboratory:	Calscience Environmental Laboratories, Inc. Garden Grove, California

Analyses performed:	EPA Method 8015B	TPHg
	EPA Method 8021B	BTEX
	EPA Method 8260B	MTBE, ETBE, TAME, TBA, EDB, 1,2-DCA, DIPE
Waste disposal:		103 gallons of purge and decon water delivered to Instrat, Inc., of Rio Vista, California, on 05/30/12

CONCLUSIONS

Well RW1 was installed during the fourth quarter 2011 and sampled for the first time during the second quarter. Groundwater monitoring and sampling data are consistent with previous data collected from the site. Groundwater flow is towards the southwest.

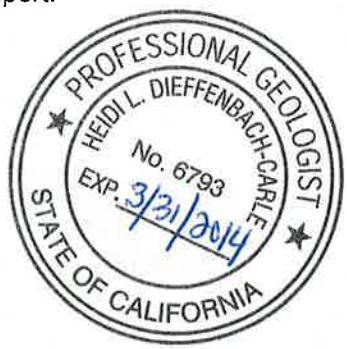
LIMITATIONS

For any documents cited that were not generated by Cardno ERI, the data taken from those documents is used "as is" and is assumed to be accurate. Cardno ERI 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 was prepared in accordance with generally accepted standards of environmental, geological, and engineering practices 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.

Please contact Mr. Vincent T. Battaglia, Cardno ERI's project manager for this site, at vincent.battaglia@cardno.com or at (707) 766-2000 with any questions regarding this report.

Sincerely,



SCANNED IMAGE

Jennifer L. Lacy
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for Cardno ERI
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SCANNED IMAGE

Heidi L. Dieffenbach-Carle
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Enclosures:

Acronym List

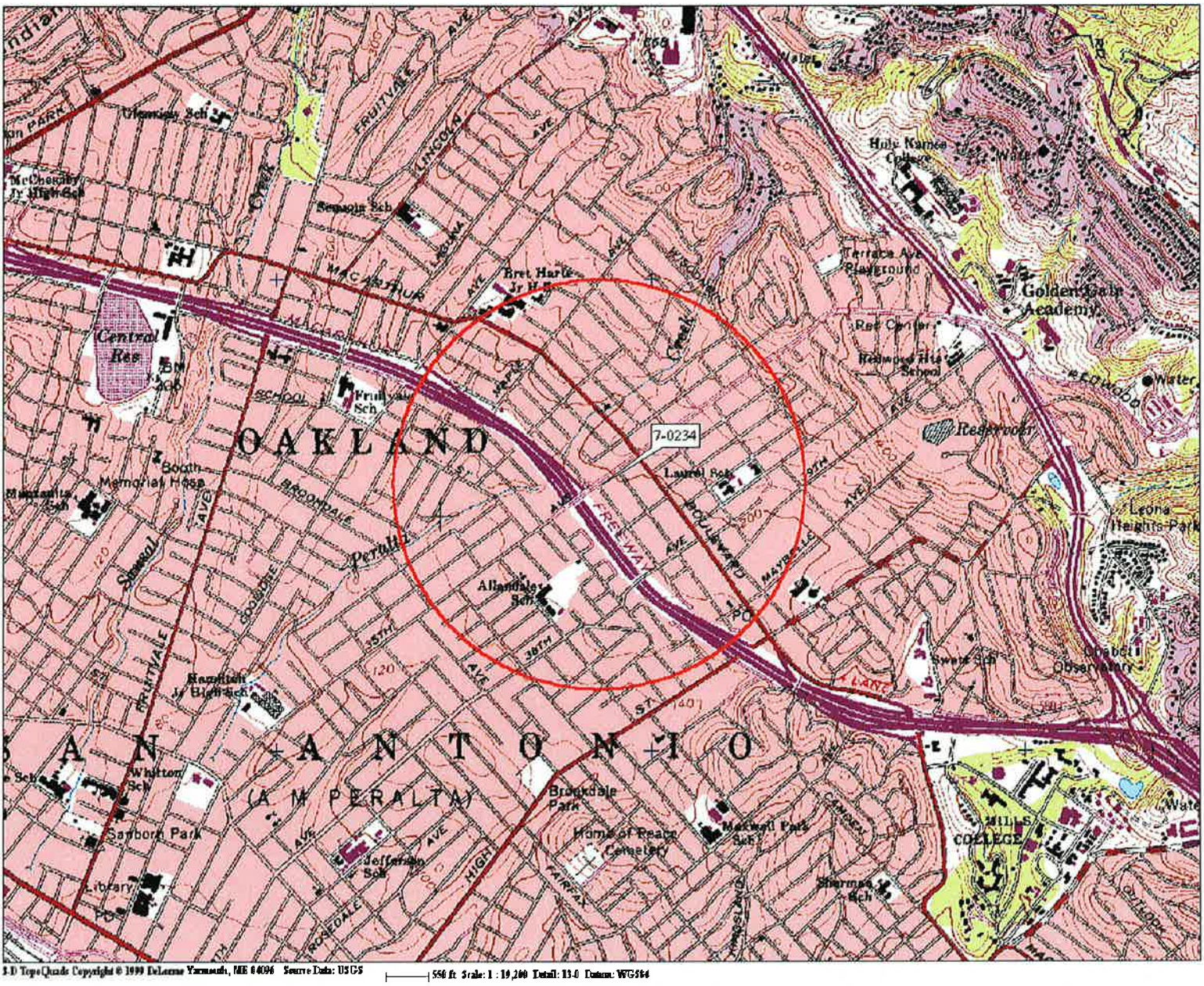
Plate 1	Site Vicinity Map
Plate 2	Select Analytical Results
Plate 3	Groundwater Elevation Map
Table 1A	Cumulative Groundwater Monitoring and Sampling Data
Table 1B	Additional Cumulative Groundwater Monitoring and Sampling Data
Table 2	Well Construction Details
Appendix A	Groundwater Sampling Protocol
Appendix B	Groundwater Monitoring Data, ConocoPhillips, 3420 35th Avenue
Appendix C	Laboratory Analytical Report and Chain-of-Custody Record
Appendix D	Waste Disposal Documentation
Appendix E	Field Data Sheets

cc: Ms. Barbara Jakub, P.G., Alameda County Health Care Services Agency, Department of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, California, 94502-6577

Mr. Shay Wideman, The Valero Companies, Environmental Liability Management, P.O. Box 696000, San Antonio, Texas, 78269

ACRONYM LIST

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



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 550 ft Scale: 1 : 19,200 Detail: 13-0 Datum: WGS84

2476TOPO

EXPLANATION

1/2-mile radius circle

N

APPROXIMATE SCALE

0 0.5 1 mile

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

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Shaping the Future

SITE VICINITY MAP

FORMER EXXON SERVICE STATION 70234
3450 35th Avenue
Oakland, California

PROJECT NO. 2476

PLATE 1

Analyte Concentrations in ug/L
Sampled May 24, 2012

Total Petroleum Hydrocarbons as gasoline

Benzene

Methyl Tertiary Butyl Ether

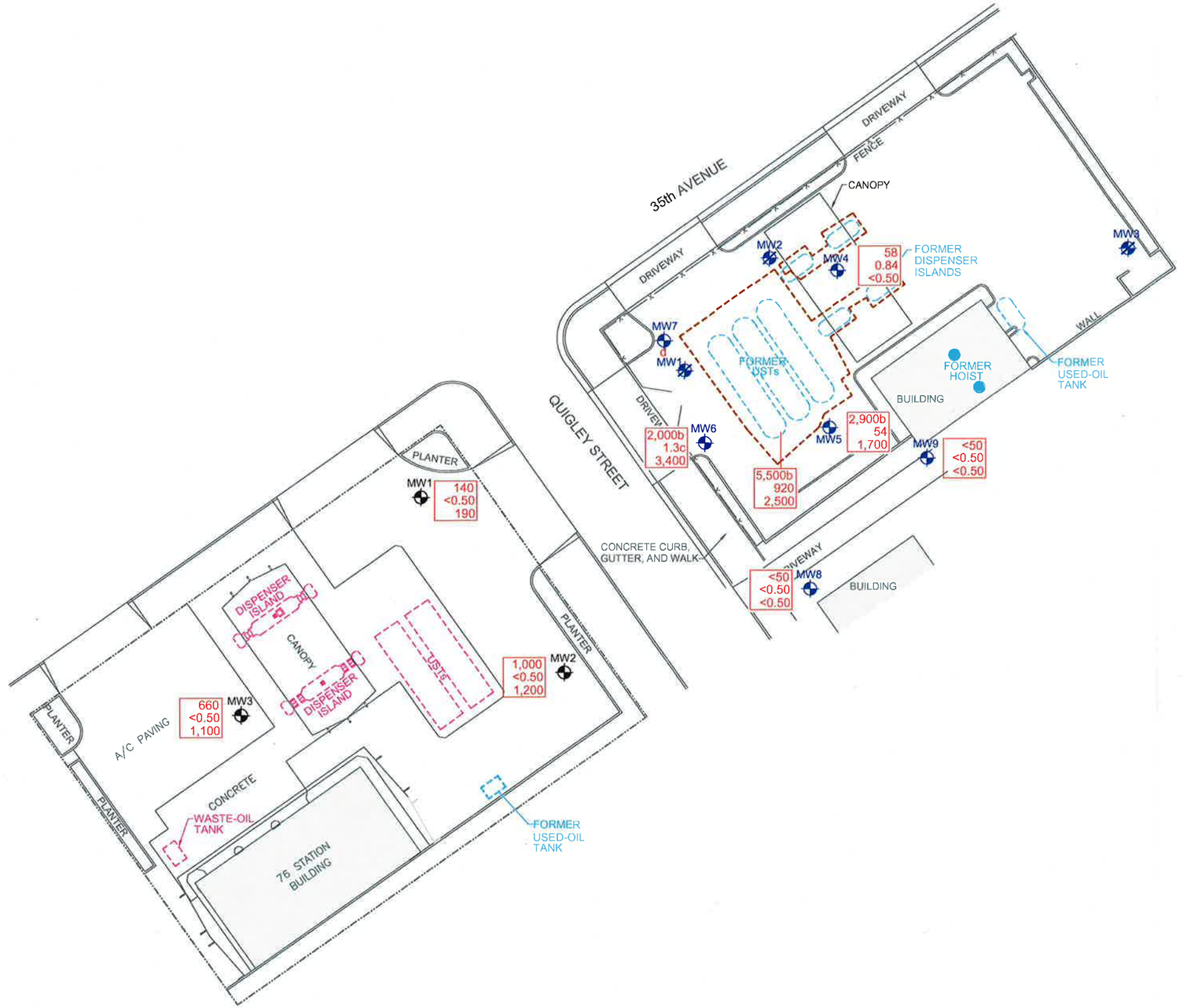
< Less Than the Stated Laboratory Reporting Limit

ug/L Micrograms per Liter

b Hydrocarbon pattern does not match the requested fuel.

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

d Well inaccessible for sampling.



APPROXIMATE SCALE

0 40 80 Feet

FN 2476 12 2QTR QM

SOURCE: Modified from maps provided by MORROW SURVEING AND TRC

Cardno ERI
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SELECT ANALYTICAL RESULTS
May 24, 2012

FORMER
EXXON SERVICE STATION 70234
3450 35th Avenue
Oakland, California

EXPLANATION

MW9 Groundwater Monitoring Well

MW3 Groundwater Monitoring Well By Others

MW1 Destroyed Groundwater Monitoring Well

Excavated Area

PROJECT NO. 2476

PLATE 2

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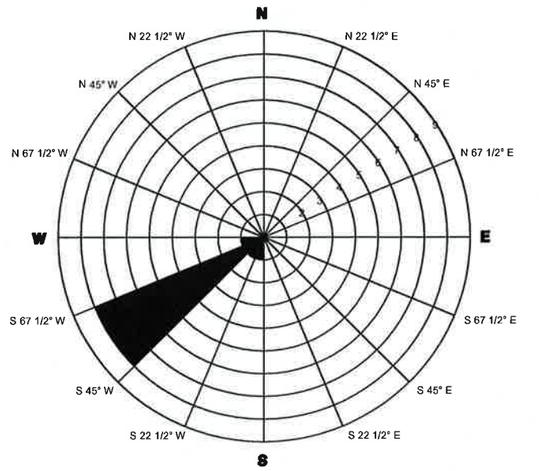
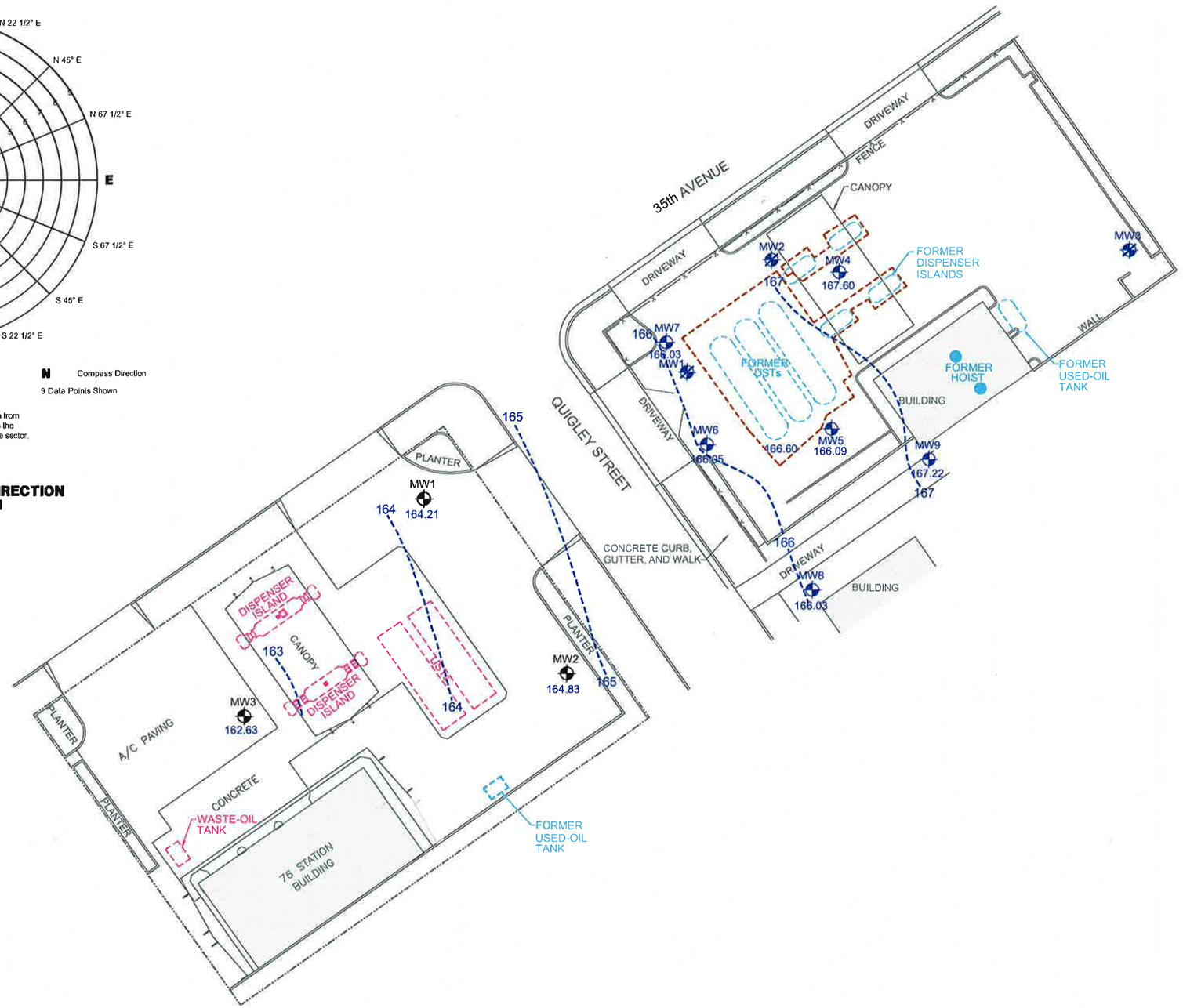


N Compass Direction

9 Data Points Shown

Rose diagram developed by evaluating the groundwater gradient direction from the quarterly monitoring data. Each circle on the rose diagram represents the number of monitoring events that the gradient plotted in that 22 1/2 degree sector. March 30, 2009 to May 24, 2012

GROUNDWATER FLOW DIRECTION ROSE DIAGRAM



APPROXIMATE SCALE

0 40 80 Feet

FN 2476 12 2QTR QM

SOURCE: Modified from maps provided by MORROW SURVEING AND TRC

Cardno ERI
Shaping the Future

GROUNDWATER ELEVATION MAP
May 24, 2012

FORMER
EXXON SERVICE STATION 70234
3450 35th Avenue
Oakland, California

EXPLANATION

- MW9 — Groundwater Monitoring Well
- 167.22 — Groundwater elevation in feet; datum is mean sea level
- MW1 — Destroyed Groundwater Monitoring Well
- MW3 — Groundwater Monitoring Well By Others
- Excavated Area
- 167 ----- Line of Equal Groundwater Elevation; datum is mean sea level

PROJECT NO. 2476

PLATE 3

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TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
Monitoring Well Samples														
MW1	07/15/92	---	---	Well installed.										
MW1	07/17/92	---	192.00	33.02	158.98	No	67	---	6.6	6.9	2.0	4.5	17	---
MW1	10/22/92	---	192.00	34.07	157.93	No	<50	---	2.9	<0.5	<0.5	<0.5	16	---
MW1	02/04/93	---	192.00	29.43	162.57	No	<50	---	0.8	<0.5	<0.5	<0.5	4	---
MW1	05/03/93	---	192.00	29.72	162.28	No	71	---	2.8	7.2	2.2	22	40	---
MW1	07/30/93	---	192.00	32.95	159.05	No	<50	---	<0.5	<0.5	<0.5	<0.5	5	---
MW1	10/19/93	---	192.00	34.34	157.66	No	<50	---	<0.5	<0.5	<0.5	<0.5	12	---
MW1	02/23/94	---	192.00	31.72	160.28	No	<50	---	<0.5	<0.5	<0.5	<0.5	4	---
MW1	06/06/94	---	192.00	31.77	160.23	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3	---
MW1	08/18/94	---	192.00	33.76	158.24	No	<50	---	<0.5	<0.5	<0.5	<0.5	130	---
MW1	11/15/94	---	192.00	34.08	157.92	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3.0	<100
MW1	02/06/95	---	192.00	28.50	163.50	No	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
MW1	05/10/95	---	192.00	29.30	162.70	No	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
MW1	09/20/99	---	192.00	33.30	158.70	No	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<50
MW1	Well destroyed in June 2000.													
MW2	07/15/92	---	---	Well installed.										
MW2	07/17/92	---	194.85	34.65	160.20	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3	---
MW2	10/22/92	---	194.85	35.64	159.21	No	<50	---	<0.5	<0.5	<0.5	<0.5	--	---
MW2	02/04/93	---	194.85	31.13	163.72	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3	---
MW2	05/03/93	---	194.85	31.08	163.77	No	<50	---	<0.5	<0.5	<0.5	<0.5	3	---
MW2	07/30/93	---	194.85	34.34	160.51	No	<50	---	<0.5	<0.5	<0.5	<0.5	14	---
MW2	10/19/93	---	194.85	36.00	158.85	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3	---
MW2	02/23/94	---	194.85	33.92	160.93	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3	---
MW2	06/06/94	---	194.85	33.50	161.35	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3	---
MW2	08/18/94	---	194.85	35.38	159.47	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3.0	---
MW2	11/15/94	---	194.85	35.93	158.92	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3.0	<100
MW2	02/06/95	---	194.85	30.38	164.47	No	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
MW2	05/10/95	---	194.85	30.77	164.08	No	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
MW2	09/20/99	---	194.85	35.15	159.70	No	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<0.5
MW2	Well destroyed in June 2000.													
MW3	07/15/92	---	---	Well installed.										
MW3	07/17/92	---	196.90	37.24	159.66	No	<50	---	<0.5	<0.5	<0.5	<0.5	50	---
MW3	10/22/92	---	196.90	35.95	160.95	No	<50	---	<0.5	<0.5	<0.5	<0.5	9	---
MW3	02/04/93	---	196.90	29.85	167.05	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
MW3	05/03/93	---	196.90	29.87	167.03	No	<50	---	<0.5	<0.5	<0.5	<0.5	3	---
MW3	07/30/93	---	196.90	33.85	163.05	No	<50	---	<0.5	<0.5	<0.5	<0.5	22	---
MW3	10/19/93	---	196.90	35.89	161.01	No	<50	---	<0.5	<0.5	<0.5	<0.5	12	---
MW3	02/23/94	---	196.90	32.88	164.02	No	<50	---	<0.5	<0.5	<0.5	<0.5	25	---
MW3	06/06/94	---	196.90	32.40	164.50	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3	---
MW3	08/18/94	---	196.90	35.07	161.83	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3.0	---
MW3	11/15/94	---	196.90	35.97	160.93	No	<50	---	<0.5	<0.5	<0.5	<0.5	<3.0	<100
MW3	02/06/95	---	196.90	28.39	168.51	No	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
MW3	05/10/95	---	196.90	28.90	168.00	No	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
MW3	09/20/99	---	196.90	34.68	162.22	No	75.0	1.87	<0.5	11.5	1.8	18.0	<75	<0.5
MW3	Well destroyed in June 2000.													
MW4	03/02/09	---	---	Well installed.										
MW4	03/30/09	---	197.62	30.94	166.68	No	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	04/02/09	---	197.62	Well surveyed.										
MW4	05/28/09	---	197.62	32.00	165.62	No	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	08/31/09	---	197.62	35.43	162.19	No	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	12/11/09	---	197.62	35.01	162.61	No	<50	<0.50	<0.50	0.83	<0.50	1.1	---	---
MW4	05/07/10	---	197.62	29.11	168.51	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW4	11/01/10	---	197.62	34.95	162.67	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW4	05/27/11 d	---	197.62	30.65	166.97	No	---	---	---	---	---	---	---	---
MW4	11/23/11	---	197.62	33.49	164.13	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW4	**05/24/12**	**---**	**197.62**	**30.02**	**167.60**	**No**	**58**	**<0.50**	**0.84**	**4.4**	**0.64c**	**3.5**	**---**	**---**
MW5	03/06/09	---	---	Well installed.										
MW5	03/30/09	---	196.35	30.05	166.30	No	4,200	1,900	540	140	<12	310	---	---
MW5	04/02/09	---	196.35	Well surveyed.										
MW5	05/28/09	---	196.35	31.45	164.90	No	5,300	3,600	890	150	<25	140	---	---
MW5	08/31/09	---	196.35	34.70	161.65	No	5,800	3,500	550	<100	<100	<100	---	---
MW5	12/11/09	---	196.35	34.52	161.83	No	4,000b	3,800	230	<100	<100	<100	---	---
MW5	05/07/10	---	196.35	30.84	165.51	No	2,700b	1,700	73	5.3	3.6	6.5	---	---
MW5	11/01/10	---	196.35	33.93	162.42	No	2,400b	3,400	320	71	21	40	---	---
MW5	05/27/11 d	---	196.35	31.65	164.70	No	---	---	---	---	---	---	---	---
MW5	11/23/11	---	196.35	32.58	163.77	No	1,900b	3,200	72	2.7	3.1	8.1	---	---
MW5	**05/24/12**	**---**	**196.35**	**30.26**	**166.09**	**No**	**2,900b**	**1,700**	**54**	**31**	**5.2**	**17**	**---**	**---**
MW6	03/09/09	---	---	Well installed.										
MW6	03/30/09	---	192.41	26.94	165.47	No	2,800	4,800	0.91	<0.50	<0.50	<0.50	---	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
MW6	04/02/09	---	192.41	Well surveyed.										
MW6	05/28/09	---	192.41	28.04	164.37	No	2,800	6,000	<100	<100	<100	<100	---	---
MW6	08/31/09	---	192.41	30.57	161.84	No	4,900	6,600	<100	<100	<100	<100	---	---
MW6	12/11/09	---	192.41	30.78	161.63	No	4,900b	6,200	<100	<100	<100	<100	---	---
MW6	05/07/10	---	192.41	25.42	166.99	No	2,900b	3,700	2.7	<0.50	0.74c	<1.0	---	---
MW6	11/01/10	---	192.41	30.68	161.73	No	850b	6,100	2.1	<0.50	<0.50	<1.0	---	---
MW6	05/27/11 d	---	192.41	27.07	165.34	No	---	---	---	---	---	---	---	---
MW6	11/23/11	---	192.41	29.25	163.16	No	1,600b	6,400	<0.50	<0.50	<0.50	<1.0	---	---
MW6	**05/24/12**	**---**	**192.41**	**26.36**	**166.05**	**No**	**2,000b**	**3,400**	**1.3c**	**9.7**	**0.97c**	**5.5**	**---**	**---**
MW7	03/09/09	---	---	Well installed.										
MW7	03/30/09	---	194.34	29.15	165.19	No	55	66	<0.50	<0.50	<0.50	<0.50	---	---
MW7	04/02/09	---	194.34	Well surveyed.										
MW7	05/28/09	---	194.34	30.16	164.18	No	50	67	<1.0	<1.0	<1.0	<1.0	---	---
MW7	08/31/09	---	194.34	33.31	161.03	No	<50	12	<0.50	0.60	<0.50	<0.50	---	---
MW7	12/11/09	---	194.34	32.71	161.63	No	<50	31	0.78	1.7	0.62	2.4	---	---
MW7	05/07/10	---	194.34	27.54	166.80	No	510b	700	<0.50	<0.50	<0.50	<1.0	---	---
MW7	11/01/10	---	194.34	32.82	161.52	No	68b	140	<0.50	<0.50	<0.50	<1.0	---	---
MW7	05/27/11 d	---	194.34	28.85	165.49	No	---	---	---	---	---	---	---	---
MW7	11/23/11	---	194.34	31.39	162.95	No	190b	300	<0.50	<0.50	<0.50	<1.0	---	---
MW7	**05/24/12 d**	**---**	**194.34**	**28.31**	**166.03**	**No**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
MW8	03/04/09	---	---	Well installed.										
MW8	03/30/09	---	192.96	27.35	165.61	No	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	04/02/09	---	192.96	Well surveyed.										
MW8	05/28/09	---	192.96	28.72	164.24	No	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	08/31/09	---	192.96	31.93	161.03	No	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	12/11/09	---	192.96	31.24	161.72	No	<50	<0.50	0.74	1.6	0.59	2.3	---	---
MW8	05/07/10	---	192.96	25.68	167.28	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW8	11/01/10	---	192.96	31.18	161.78	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW8	05/27/11	---	192.96	27.55	165.41	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW8	11/23/11	---	192.96	29.74	163.22	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW8	**05/24/12**	**---**	**192.96**	**26.93**	**166.03**	**No**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**---**	**---**
MW9	03/05/09	---	---	Well installed.										
MW9	03/30/09	---	195.16	28.31	166.85	No	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	04/02/09	---	195.16	Well surveyed.										
MW9	05/28/09	---	195.16	29.69	165.47	No	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
MW9	08/31/09	---	195.16	33.20	161.96	No	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	12/11/09	---	195.16	32.62	162.54	No	<50	<0.50	0.73	1.7	0.54	2.2	---	---
MW9	05/07/10	---	195.16	26.59	168.57	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW9	11/01/10	---	195.16	32.45	162.71	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW9	05/27/11	---	195.16	29.62	165.54	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW9	11/23/11	---	195.16	30.56	164.60	No	<50	<0.50	<0.50	<0.50	<0.50	<1.0	---	---
MW9	**05/24/12**	**---**	**195.16**	**27.94**	**167.22**	**No**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**---**	**---**
RW1	12/22/11	---	---	Well installed.										
RW1	12/30/11	---	195.15	Well surveyed.										
RW1	**05/24/12**	**---**	**195.15**	**28.55**	**166.60**	**No**	**5,500b**	**2,500**	**920**	**5.9c**	**51**	**14**	**---**	**---**
Grab Groundwater Samples														
Pit Water	06/14/02	11.5a	---	---	---	---	5,600	12,000	140	840	100	530	---	---
UST Pit	06/19/02	13.5a	---	---	---	---	680	640	2.7	36	18	130	---	---
W-38-B11	11/14/07	38	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
W-15-B12	11/13/07	15	---	---	---	---	8,400	78	67	<5.0	140	150	---	---
W-40-B13	11/12/07	40	---	---	---	---	<50	0.53	<0.50	<0.50	<0.50	<0.50	---	---
W-15-B14	11/13/07	15	---	---	---	---	2,500	16	1.7	3.0	26	13	---	---
W-38-B15	11/15/07	38	---	---	---	---	18,000	12,000	3,400	2,500	330	2,000	---	---
W-40-B16	11/15/07	40	---	---	---	---	<50	7.7	<0.50	<0.50	<0.50	<0.50	---	---
W-37-B17	11/13/07	37	---	---	---	---	630	2,200	1.8	<0.50	4.1	1.4	---	---
W-38-B18	11/12/07	38	---	---	---	---	4,300	1,400	52	<12	56	96	---	---
W-35-B19	03/03/09	35	---	---	---	---	4,400	7,100	<0.50	<0.50	<0.50	<1.0	---	---
W-35-B20	03/03/09	35	---	---	---	---	640	440	<0.50	<0.50	<0.50	<1.0	---	---
W-35-B21	03/03/09	35	---	---	---	---	<50	1.4	<0.50	<0.50	<0.50	<1.0	---	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Notes:		Data prior to 1999 provided by EA Environmental Science and Engineering in previously submitted reports.
TOC Elev.	=	Top of well casing elevation; datum is mean sea level.
DTW	=	Depth to water.
GW Elev.	=	Groundwater elevation; datum is mean sea level.
NAPL	=	Non-aqueous phase liquid.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B; during March 2009, analyzed using EPA Method 8020/8021B.
Total Pb	=	Total lead analyzed using EPA Method 6010.
Organic Pb	=	Organic lead analyzed using CA DHS LUFT method.
EDB	=	1,2-dibromoethane analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-dicloroethane analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
Ethanol	=	Ethanol analyzed using EPA Method 8260B.
µg/L	=	Micrograms per liter.
mg/L	=	Milligrams per liter.
<	=	Less than the stated laboratory reporting limit.
---	=	Not sampled/Not analyzed/Not measured/Not applicable.
a	=	Approximate depth to groundwater surface at time of sampling.
b	=	Hydrocarbon pattern does not match the requested fuel.
c	=	Analyte presence was not confirmed by second column or GC/MS analysis.
d	=	Well inaccessible for sampling.

TABLE 1B
ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)
Monitoring Well Samples									
MW1	07/17/92 - 09/20/99	---	Not analyzed for these analytes.						
MW1	Well destroyed in June 2000.	---							
MW2	07/17/92 - 09/20/99	---	Not analyzed for these analytes.						
MW2	Well destroyed in June 2000.	---							
MW3	07/17/92 - 09/20/99	---	Not analyzed for these analytes.						
MW3	Well destroyed in June 2000.	---							
MW4	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW4	05/28/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW4	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW4	12/11/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW4	05/07/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW4	11/01/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW4	05/27/11 d	---	---	---	---	---	---	---	---
MW4	11/23/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW4	**05/24/12**	**---**	**<0.50**	**<0.50**	**<0.50**	**<5.0**	**<0.50**	**<0.50**	**---**
MW5	03/30/09	---	<12	17	<12	450	<12	<12	---
MW5	05/28/09	---	<25	<25	<25	530	<25	<25	---
MW5	08/31/09	---	<100	<100	<100	<1,000	<100	<100	---
MW5	12/11/09	---	<100	<100	<100	2,000	<100	<100	---
MW5	05/07/10	---	<25	<25	<25	400	<25	<25	---
MW5	11/01/10	---	<50	<50	<50	1,500	<50	<50	---
MW5	05/27/11 d	---	---	---	---	---	---	---	---
MW5	11/23/11	---	<50	<50	<50	<500	<50	<50	---
MW5	**05/24/12**	**---**	**<50**	**<50**	**<50**	**1,400**	**<50**	**<50**	**---**
MW6	03/30/09	---	<0.50	<0.50	1.3	410	<0.50	0.82	---
MW6	05/28/09	---	<100	<100	<100	<1,000	<100	<100	---
MW6	08/31/09	---	<100	<100	<100	1,100	<100	<100	---
MW6	12/11/09	---	<100	<100	<100	2,600	<100	<100	---
MW6	05/07/10	---	<100	<100	<100	<1,000	<100	<100	---
MW6	11/01/10	---	<50	<50	<50	2,400	<50	<50	---
MW6	05/27/11 d	---	---	---	---	---	---	---	---

TABLE 1B
ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)
MW6	11/23/11	---	<100	<100	<100	<1,000	<100	<100	---
MW6	**05/24/12**	**---**	**<100**	**<100**	**<100**	**2,700**	**<100**	**<100**	**---**
MW7	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW7	05/28/09	---	<1.0	<1.0	<1.0	<10	<1.0	<1.0	---
MW7	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW7	12/11/09	---	<0.50	<0.50	<0.50	12	<0.50	<0.50	---
MW7	05/07/10	---	<0.50	<0.50	<0.50	130	<0.50	<0.50	---
MW7	11/01/10	---	<2.5	<2.5	<2.5	27	<2.5	<2.5	---
MW7	05/27/11 d	---	---	---	---	---	---	---	---
MW7	11/23/11	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---
MW7	**05/24/12 d**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
MW8	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW8	05/28/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW8	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW8	12/11/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW8	05/07/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW8	11/01/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW8	05/27/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW8	11/23/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW8	**05/24/12**	**---**	**<0.50**	**<0.50**	**<0.50**	**<5.0**	**<0.50**	**<0.50**	**---**
MW9	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW9	05/28/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW9	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW9	12/11/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW9	05/07/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW9	11/01/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW9	05/27/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW9	11/23/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---
MW9	**05/24/12**	**---**	**<0.50**	**<0.50**	**<0.50**	**<5.0**	**<0.50**	**<0.50**	**---**
RW1	**05/24/12**	**---**	**<50**	**<50**	**<50**	**1,900**	**<50**	**<50**	**---**
Grab Groundwater Samples									
Pit Water	06/14/02	11.5a	---	---	---	---	---	---	---
UST Pit	06/19/02	13.5a	---	---	---	---	---	---	---

TABLE 1B
ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)
W-38-B11	11/14/07	38	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50
W-15-B12	11/13/07	15	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<500
W-40-B13	11/12/07	40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50
W-15-B14	11/13/07	15	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<100
W-38-B15	11/15/07	38	<25	<25	<25	1,900	<25	<25	<2,500
W-40-B16	11/15/07	40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	85
W-37-B17	11/13/07	37	<0.50	<0.50	<0.50	58	<0.50	<0.50	<50
W-38-B18	11/12/07	38	<12	<12	<12	<250	<12	<12	<1,200
W-35-B19	03/03/09	35	<50	<50	<50	<500	<50	<50	<5,000
W-35-B20	03/03/09	35	<0.50	<0.50	<0.50	12	<0.50	<0.50	<50
W-35-B21	03/03/09	35	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50

TABLE 1B
ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Notes:		Data prior to 1999 provided by EA Environmental Science and Engineering in previously submitted reports.
TOC Elev.	=	Top of well casing elevation; datum is mean sea level.
DTW	=	Depth to water.
GW Elev.	=	Groundwater elevation; datum is mean sea level.
NAPL	=	Non-aqueous phase liquid.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B; during March 2009, analyzed using EPA Method 8020/8021B.
Total Pb	=	Total lead analyzed using EPA Method 6010.
Organic Pb	=	Organic lead analyzed using CA DHS LUFT method.
EDB	=	1,2-dibromoethane analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-dicloroethane analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
Ethanol	=	Ethanol analyzed using EPA Method 8260B.
µg/L	=	Micrograms per liter.
mg/L	=	Milligrams per liter.
<	=	Less than the stated laboratory reporting limit.
---	=	Not sampled/Not analyzed/Not measured/Not applicable.
a	=	Approximate depth to groundwater surface at time of sampling.
b	=	Hydrocarbon pattern does not match the requested fuel.
c	=	Analyte presence was not confirmed by second column or GC/MS analysis.
d	=	Well inaccessible for sampling.

TABLE 2
WELL CONSTRUCTION DETAILS
Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Well ID	Well Installation Date	Well Destruction Date	TOC Elevation (feet)	Borehole Diameter (inches)	Total Depth of Boring (feet bgs)	Well Depth (feet bgs)	Casing Diameter (inches)	Well Casing Material	Screened Interval (feet bgs)	Slot Size (inches)	Filter Pack Interval (feet bgs)	Filter Pack Material
MW1	07/15/92	Jun-00	192.00	11	45	45	4	Schedule 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW2	07/15/92	Jun-00	194.85	11	45	45	4	Schedule 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW3	07/15/92	Jun-00	196.90	11	45	45	4	Schedule 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW4	03/02/09	---	197.62	8	45	45	2	PVC	35-45	0.2	33-45	#3 Sand
MW5	03/06/09	---	196.35	8	40	40	2	PVC	30-40	0.2	28-40	#3 Sand
MW6	03/09/09	---	192.41	8	40	39	2	PVC	29-39	0.2	27-39	#3 Sand
MW7	03/09/09	---	194.34	8	40	40	2	PVC	30-40	0.2	28-40	#3 Sand
MW8	03/04/09	---	192.96	8	40	40	2	PVC	30-40	0.2	28-40	#3 Sand
MW9	03/05/09	---	195.16	8	40	40	2	PVC	30-40	0.2	28-40	#3 Sand
RW1	12/22/11	---	195.15	10	40	40	4	Stainless Steel	25-39.5	0.020	23-40	#2/12 Sand

Notes:
TOC = Top of well casing elevation; datum is mean sea level.
PVC = Polyvinyl chloride.
feet bgs = feet below ground surface.

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 an 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
π	=	ratio of the circumference of a circle to its diameter

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

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.

APPENDIX B

GROUNDWATER MONITORING DATA
CONOCOPHILLIPS, 3420 35TH AVENUE

TABLE 1
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON # 351639/UNOCAL #6129
3420 35TH AVE., OAKLAND, CALIFORNIA

					HYDROCARBONS	PRIMARY VOCS											
Location	Date	TOC	DTW	GWE	TPH - Gasoline	B	T	E	X	MTBE by SW8260	TBA	ETBE	DIPE	TAME	EDB	1,2-DCA	Ethanol
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	05/27/2011	190.79	26.87	163.92	110	<0.50	<0.50	<0.50	<1.0	220	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250
	11/23/2011	190.79	29.14	161.65	110	<0.50	<0.50	<0.50	<1.0	150	41	<0.50	<0.50	<0.50	<0.50	<0.50	<250
	05/24/2011	190.79	**26.58**	**164.21**	**140**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**190**	**66**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<250**
MW-2	05/27/2011	190.80	26.44	164.36	560	<0.50	<0.50	<0.50	<1.0	1,100	210	<0.50	<0.50	<0.50	<0.50	<0.50	<250
	11/23/2011	190.80	28.53	162.27	830	<0.50	<0.50	<0.50	<1.0	1,500	400	<0.50	9.0	<0.50	<0.50	<0.50	<250
	05/24/2011	190.80	**25.97**	**164.83**	**1,000**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**1,200**	**430**	**<0.50**	**8.8**	**<0.50**	**<0.50**	**<0.50**	**<250**
MW-3	05/27/2011	188.58	26.53	162.05	340	<0.50	<0.50	<0.50	<1.0	890	73	<0.50	<0.50	<0.50	<0.50	<0.50	<250
	11/23/2011	188.58	28.11	160.47	520	<0.50	<0.50	<0.50	<1.0	730	170	<0.50	<0.50	<0.50	<0.50	<0.50	<250
	05/24/2011	188.58	**25.95**	**162.63**	**660**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**1,100**	**300**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<250**

TABLE 1
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON # 351639/UNOCAL #6129
3420 35TH AVE., OAKLAND, CALIFORNIA

					HYDROCARBONS	*PRIMARY VOCS*												
Location	Date	*TOC*	*DTW*	*GWE*	*TPH - Gasoline*	*B*	*T*	*E*	*X*	*MTBE by SW8260*	*TBA*	*ETBE*	*DIPE*	*TAME*	*EDB*	*1,2-DCA*	*Ethanol*
	Units	*ft*	*ft*	*ft-amsl*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*

Abbreviations and Notes:

TOC = Top of Casing

DTW = Depth to Water

GWE = Groundwater elevation

(ft-amsl) = Feet Above Mean sea level

ft = Feet

µg/L = Micrograms per Liter

TPH - Total Petroleum Hydrocarbons

VOCS = Volatile Organic Compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylene

MTBE = Methyl tert butyl ether

TBA = Tert-Butyl alcohol

DIPE = Diisopropyl ether

ETBE = Tert-Butyl ethyl ether

TAME = Tert-Amyl methyl ether

EDB = 1,2-Dibromoethane (Ethylene dibromide)

1,2-DCA = 1,2-Dichloroethane

-- = Not available / not applicable

<x = Not detected above laboratory method detection limit

APPENDIX C

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY RECORD

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-05-1892

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno ERI

Client Project Name: ExxonMobil 70234 / 022476

Attention: Janice Jacobson
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Cecile de Guia

Approved for release on 06/8/2012 by:
Cecile deGuia
Project Manager

ResultLink ▸

Email your PM ▸

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

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: ExxonMobil 70234 / 022476
Work Order Number: 12-05-1892

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: ExxonMobil 70234 / 022476

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-32-MW4	**12-05-1892-2-F**	**05/24/12 10:15**	**Aqueous**	**GC 25**	**06/05/12**	**06/05/12 15:51**	**120605B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	58	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	109	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-32-MW5	**12-05-1892-3-F**	**05/24/12 10:45**	**Aqueous**	**GC 25**	**06/05/12**	**06/05/12 16:25**	**120605B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	2900	100	2	HD	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	105	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-28-MW6	**12-05-1892-4-F**	**05/24/12 11:15**	**Aqueous**	**GC 25**	**06/05/12**	**06/05/12 16:59**	**120605B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	2000	100	2	HD	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	95	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-28-MW8	**12-05-1892-5-E**	**05/24/12 10:35**	**Aqueous**	**GC 25**	**05/31/12**	**06/01/12 01:38**	**120531B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	112	38-134	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: ExxonMobil 70234 / 022476

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-30-MW9	**12-05-1892-6-E**	**05/24/12 10:10**	**Aqueous**	**GC 25**	**05/31/12**	**06/01/12 02:11**	**120531B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-31-RW1	**12-05-1892-7-E**	**05/24/12 11:50**	**Aqueous**	**GC 25**	**05/31/12**	**06/01/12 02:45**	**120531B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	5500	100	2	HD	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	112	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-436-7,478**	**N/A**	**Aqueous**	**GC 25**	**05/31/12**	**05/31/12 13:40**	**120531B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	87	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-436-7,493**	**N/A**	**Aqueous**	**GC 25**	**06/05/12**	**06/05/12 12:23**	**120605B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	85	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8021B
Units: ug/L

Project: ExxonMobil 70234 / 022476

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-32-MW4	**12-05-1892-2-F**	**05/24/12 10:15**	**Aqueous**	**GC 8**	**06/01/12**	**06/01/12 22:15**	**120601B03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	0.84	0.50	1		Ethylbenzene	0.64	0.50	1	LD
Toluene	4.4	0.50	1		Xylenes (total)	3.5	1.0	1	
Surrogates:	REC (%)	Control Limits		Qual					
1,4-Bromofluorobenzene	94	70-130							

W-32-MW5	**12-05-1892-3-D**	**05/24/12 10:45**	**Aqueous**	**GC 8**	**06/01/12**	**06/01/12 22:50**	**120601B03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	54	0.50	1		Ethylbenzene	5.2	0.50	1	
Toluene	31	0.50	1		Xylenes (total)	17	1.0	1	
Surrogates:	REC (%)	Control Limits		Qual					
1,4-Bromofluorobenzene	96	70-130							

W-28-MW6	**12-05-1892-4-D**	**05/24/12 11:15**	**Aqueous**	**GC 8**	**06/01/12**	**06/02/12 00:36**	**120601B03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	1.3	0.50	1	LD	Ethylbenzene	0.97	0.50	1	LD
Toluene	9.7	0.50	1		Xylenes (total)	5.5	1.0	1	
Surrogates:	REC (%)	Control Limits		Qual					
1,4-Bromofluorobenzene	95	70-130							

W-28-MW8	**12-05-1892-5-D**	**05/24/12 10:35**	**Aqueous**	**GC 8**	**06/01/12**	**06/02/12 01:11**	**120601B03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Ethylbenzene	ND	0.50	1	U
Toluene	ND	0.50	1	U	Xylenes (total)	ND	1.0	1	U
Surrogates:	REC (%)	Control Limits		Qual					
1,4-Bromofluorobenzene	92	70-130							

W-30-MW9	**12-05-1892-6-D**	**05/24/12 10:10**	**Aqueous**	**GC 8**	**06/01/12**	**06/02/12 01:47**	**120601B03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Ethylbenzene	ND	0.50	1	U
Toluene	ND	0.50	1	U	Xylenes (total)	ND	1.0	1	U
Surrogates:	REC (%)	Control Limits		Qual					
1,4-Bromofluorobenzene	93	70-130							

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

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Calscience Environmental Laboratories, Inc.

Analytical Report

Cardno ERI	Date Received: 05/26/12
601 North McDowell Blvd.	Work Order No: 12-05-1892
Petaluma, CA 94954-2312	Preparation: EPA 5030C
	Method: EPA 8021B
	Units: ug/L

Project: ExxonMobil 70234 / 022476

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-31-RW1	**12-05-1892-7-F**	**05/24/12 11:50**	**Aqueous**	**GC 8**	**06/02/12**	**06/02/12 16:52**	**120602B01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	920	2.5	5		Ethylbenzene	51	2.5	5	
Toluene	5.9	2.5	5	LD	Xylenes (total)	14	5.0	5	

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	95	70-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-667-1,478**	**N/A**	**Aqueous**	**GC 8**	**06/01/12**	**06/01/12 13:25**	**120601B03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Ethylbenzene	ND	0.50	1	U
Toluene	ND	0.50	1	U	Xylenes (total)	ND	1.0	1	U

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	70-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-667-1,480**	**N/A**	**Aqueous**	**GC 8**	**06/02/12**	**06/02/12 15:06**	**120602B01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Ethylbenzene	ND	0.50	1	U
Toluene	ND	0.50	1	U	Xylenes (total)	ND	1.0	1	U

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	70-130	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234 / 022476

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-32-MW4	**12-05-1892-2-A**	**05/24/12 10:15**	**Aqueous**	**GC/MS BB**	**06/02/12**	**06/02/12 15:51**	**120602L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	U
Tert-Butyl Alcohol (TBA)	ND	5.0	1	U	1,2-Dibromoethane	ND	0.50	1	U
Diisopropyl Ether (DIPE)	ND	0.50	1	U	1,2-Dichloroethane	ND	0.50	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	U					

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	68-120		Dibromofluoromethane	106	80-127	
1,2-Dichloroethane-d4	106	80-128		Toluene-d8	102	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-32-MW5	**12-05-1892-3-A**	**05/24/12 10:45**	**Aqueous**	**GC/MS BB**	**06/02/12**	**06/02/12 17:48**	**120602L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methyl-t-Butyl Ether (MTBE)	1700	50	100		Tert-Amyl-Methyl Ether (TAME)	ND	50	100	U
Tert-Butyl Alcohol (TBA)	1400	500	100		1,2-Dibromoethane	ND	50	100	U
Diisopropyl Ether (DIPE)	ND	50	100	U	1,2-Dichloroethane	ND	50	100	U
Ethyl-t-Butyl Ether (ETBE)	ND	50	100	U					

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	95	68-120		Dibromofluoromethane	104	80-127	
1,2-Dichloroethane-d4	106	80-128		Toluene-d8	101	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-28-MW6	**12-05-1892-4-A**	**05/24/12 11:15**	**Aqueous**	**GC/MS BB**	**06/02/12**	**06/02/12 18:17**	**120602L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methyl-t-Butyl Ether (MTBE)	3400	100	200		Tert-Amyl-Methyl Ether (TAME)	ND	100	200	U
Tert-Butyl Alcohol (TBA)	2700	1000	200		1,2-Dibromoethane	ND	100	200	U
Diisopropyl Ether (DIPE)	ND	100	200	U	1,2-Dichloroethane	ND	100	200	U
Ethyl-t-Butyl Ether (ETBE)	ND	100	200	U					

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	96	68-120		Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	107	80-128		Toluene-d8	99	80-120	

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234 / 022476

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-28-MW8	**12-05-1892-5-A**	**05/24/12 10:35**	**Aqueous**	**GC/MS BB**	**06/02/12**	**06/02/12 18:47**	**120602L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	U
Tert-Butyl Alcohol (TBA)	ND	5.0	1	U	1,2-Dibromoethane	ND	0.50	1	U
Diisopropyl Ether (DIPE)	ND	0.50	1	U	1,2-Dichloroethane	ND	0.50	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	U					

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	95	68-120		Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	107	80-128		Toluene-d8	100	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-30-MW9	**12-05-1892-6-A**	**05/24/12 10:10**	**Aqueous**	**GC/MS BB**	**06/02/12**	**06/02/12 19:16**	**120602L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	U
Tert-Butyl Alcohol (TBA)	ND	5.0	1	U	1,2-Dibromoethane	ND	0.50	1	U
Diisopropyl Ether (DIPE)	ND	0.50	1	U	1,2-Dichloroethane	ND	0.50	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	U					

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	97	68-120		Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	109	80-128		Toluene-d8	101	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-31-RW1	**12-05-1892-7-A**	**05/24/12 11:50**	**Aqueous**	**GC/MS BB**	**06/02/12**	**06/02/12 19:46**	**120602L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methyl-t-Butyl Ether (MTBE)	2500	50	100		Tert-Amyl-Methyl Ether (TAME)	ND	50	100	U
Tert-Butyl Alcohol (TBA)	1900	500	100		1,2-Dibromoethane	ND	50	100	U
Diisopropyl Ether (DIPE)	ND	50	100	U	1,2-Dichloroethane	ND	50	100	U
Ethyl-t-Butyl Ether (ETBE)	ND	50	100	U					

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	96	68-120		Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	108	80-128		Toluene-d8	98	80-120	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234 / 022476

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-884-880**	**N/A**	**Aqueous**	**GC/MS BB**	**06/02/12**	**06/02/12 15:21**	**120602L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	U
Tert-Butyl Alcohol (TBA)	ND	5.0	1	U	1,2-Dibromoethane	ND	0.50	1	U
Diisopropyl Ether (DIPE)	ND	0.50	1	U	1,2-Dichloroethane	ND	0.50	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	U					

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	68-120		Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	105	80-128		Toluene-d8	99	80-120	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project ExxonMobil 70234 / 022476

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-05-1832-2	Aqueous	GC 25	05/31/12	05/31/12	120531S01

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	2355	118	2021	101	68-122	15	0-18	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project ExxonMobil 70234 / 022476

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-06-0045-1	Aqueous	GC 25	06/05/12	06/05/12	120605S01

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	309.6	2000	2566	113	2454	107	68-122	4	0-18	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8021B

Project ExxonMobil 70234 / 022476

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-05-1891-1	Aqueous	GC 8	06/01/12	06/01/12	120601S04

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	ND	100.0	96.89	97	94.74	95	57-129	2	0-23	
Toluene	ND	100.0	93.46	93	92.17	92	50-134	1	0-26	
Ethylbenzene	ND	100.0	93.10	93	93.87	94	58-130	1	0-26	
Xylenes (total)	ND	300.0	275.3	92	277.9	93	58-130	1	0-28	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8021B

Project ExxonMobil 70234 / 022476

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
W-31-RW1	**Aqueous**	**GC 8**	**06/02/12**	**06/02/12**	**120602S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	920.5	500.0	1338	84	1359	88	57-129	2	0-23	
Toluene	5.890	500.0	426.1	84	474.2	94	50-134	11	0-26	
Ethylbenzene	50.94	500.0	486.5	87	513.6	93	58-130	5	0-26	
Xylenes (total)	14	1500	1314	88	1396	93	58-130	6	0-28	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 05/26/12
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8260B

Project ExxonMobil 70234 / 022476

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
W-32-MW4	**Aqueous**	**GC/MS BB**	**06/02/12**	**06/02/12**	**120602S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	10.00	8.225	82	9.044	90	67-121	9	0-49	
Tert-Butyl Alcohol (TBA)	ND	50.00	120.4	241	84.95	170	36-162	35	0-30	HX,BA
Diisopropyl Ether (DIPE)	ND	10.00	8.851	89	9.502	95	60-138	7	0-45	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	8.640	86	9.534	95	69-123	10	0-30	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	8.504	85	8.833	88	65-120	4	0-20	
1,2-Dibromoethane	ND	10.00	9.588	96	10.07	101	80-120	5	0-20	
1,2-Dichloroethane	ND	10.00	9.398	94	9.722	97	80-120	3	0-20	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Cardno ERI		Date Received:	N/A
601 North McDowell Blvd.		Work Order No:	12-05-1892
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)

Project: ExxonMobil 70234 / 022476

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-436-7,478	Aqueous	GC 25	05/31/12	05/31/12	120531B01

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	2028	101	2068	103	78-120	2	0-10	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Cardno ERI		Date Received:	N/A
601 North McDowell Blvd.		Work Order No:	12-05-1892
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)

Project: ExxonMobil 70234 / 022476

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-436-7,493	Aqueous	GC 25	06/05/12	06/05/12	120605B01

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	2076	104	2064	103	78-120	1	0-10	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Cardno ERI	Date Received:	N/A
601 North McDowell Blvd.	Work Order No:	12-05-1892
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8021B

Project: ExxonMobil 70234 / 022476

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-667-1,478	Aqueous	GC 8	06/01/12	06/01/12	120601B03

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	100.0	94.79	95	96.29	96	70-118	2	0-9	
Toluene	100.0	93.89	94	95.63	96	66-114	2	0-9	
Ethylbenzene	100.0	93.65	94	95.03	95	72-114	1	0-9	
Xylenes (total)	300.0	277.7	93	281.1	94	74-116	1	0-9	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Cardno ERI		Date Received:	N/A
601 North McDowell Blvd.		Work Order No:	12-05-1892
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8021B

Project: ExxonMobil 70234 / 022476

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-667-1,480	Aqueous	GC 8	06/02/12	06/02/12	120602B01

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	100.0	97.06	97	99.53	100	70-118	3	0-9	
Toluene	100.0	96.25	96	100.1	100	66-114	4	0-9	
Ethylbenzene	100.0	96.12	96	98.15	98	72-114	2	0-9	
Xylenes (total)	300.0	284.9	95	291.1	97	74-116	2	0-9	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: N/A
Work Order No: 12-05-1892
Preparation: EPA 5030C
Method: EPA 8260B

Project: ExxonMobil 70234 / 022476

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-884-880	Aqueous	GC/MS BB	06/02/12	06/02/12	120602L01

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	9.915	99	10.04	100	80-120	73-127	1	0-20	
Toluene	10.00	10.33	103	10.11	101	80-120	73-127	2	0-20	
Ethylbenzene	10.00	10.66	107	10.69	107	80-120	73-127	0	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	9.252	93	9.849	98	69-123	60-132	6	0-20	
Tert-Butyl Alcohol (TBA)	50.00	54.68	109	50.32	101	63-123	53-133	8	0-20	
Diisopropyl Ether (DIPE)	10.00	9.604	96	10.20	102	59-137	46-150	6	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	9.596	96	10.53	105	69-123	60-132	9	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	9.558	96	9.535	95	70-120	62-128	0	0-20	
Ethanol	100.0	97.51	98	98.66	99	28-160	6-182	1	0-57	
1,2-Dibromoethane	10.00	10.33	103	11.10	111	79-121	72-128	7	0-20	
1,2-Dichloroethane	10.00	10.08	101	10.44	104	80-120	73-127	3	0-20	

Total number of LCS compounds : 11
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 Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-05-1892

Qualifier	Definition
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 matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
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.
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 a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
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 and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
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.
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/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
U	Undetected at detection limit.

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.
MPN - Most Probable Number

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Calscience Environmental Laboratories, Inc.

7440 Lincoln Way
Garden Grove, CA 92841

Phone: 714-895-5494
Fax: 714-894-7501

ExxonMobil 12-05-1892

Consultant Name: Cardno ERI | Account #: NA | PO#: 4512312717
Consultant Address: 601 N. McDowell Boulevard | Invoice To: Jennifer Sedlachek
Consultant City/State/Zip: Petaluma, California, 94954 | Report To: Janice Jacobson
ExxonMobil Project Mgr: Jennifer Sedlachek | Project Name: 02 2476 13X
Consultant Project Mgr: Janice Jacobson | ExxonMobil Site #: 70234 | Major Project (AFE):
Consultant Telephone Number: 707-766-2000 | Fax No.: 707-789-0414 | Site Address: 3450 35th Avenue
Sampler Name (Print): Drew Hazen | Site City, State, Zip: Oakland, California
Sampler Signature: Drew Hazen | Oversight Agency: Alameda County Environmental Health Department

	Sample ID	Field Point Name	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	HCl	NaOH	H_2SO_4 Plastic	H_2SO_4 Glass	HNO_3	Ice	Other	None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Air	Other (specify): Distilled Water	Analyze For: TPHg 8015B	BTEX 8021B	OXYGENATES 8260B					RUSH TAT (Pre-Schedule)	5-day TAT	Standard 10-day TAT	Due Date of Report
1	QCBB	QCBB	5-24-12	1145	2V						x														x	H	O	L	D						X	
2	W-32-MW4	MW4	5-24-12	1015	6V						x								x							x	x	x							X	
3	W-32-MW5	MW5	5-24-12	1045	6V						x								x							x	x	x							X	
4	W-28-MW6	MW6	5-24-12	1115	6V						x								x							x	x	x							X	
	~~W- -MW7~~	MW7			6V						x								x							x	x	x							X	
5	W-28-MW8	MW8	5-24-12	1035	6V						x								x							x	x	x							X	
6	W-30-MW9	MW9	5-24-12	1010	6V						x								x							x	x	x							X	
7	W-31-RW1	RW1	5-24-12	1150	6V						x								x							x	x	x							X	

Comments/Special Instructions:
PLEASE E-MAIL ALL PDF FILES TO
norcallabs@eri-us.com; ERI-EIMLABS@eri-us.com
GLOBAL ID # T06019757161

7 CA Oxys= MTBE, ETBE, TAME, TBA, EDB, 1,2-DCA, DIPE.
Set TBA detection limit at or below 12 ug/L

Laboratory Comments:
Temperature Upon Receipt:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
QC Deliverables (please circle one)
Level 2
Level 3
Level 4
Site Specific - if yes, please attach pre-schedule w/ TestAmerica Project Manager or attach specific instructions

Relinquished by:		Date	Time	Received by:	Date	Time
Drew Hazen		5/25/12	1010	Tom O'Malley CEC	5/25/12	1010
Tom O'Malley TO	G-50	5/25/12	1730	[illegible] CEC	5/26/12	0850

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1892

GSO

< WebShip > > > > >

800-322-5555 www.gso.com

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

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

COD:
$0.00

Reference:
PHILLIPS 66, CARDNO ERI, BTS(ARCADIS), ERM

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 519201553

SDS

ORC

A

GARDEN GROVE

D92841A

1632822

Print Date : 05/25/12 15:24 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

LABEL INSTRUCTIONS:

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

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package; do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-05-1892

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Cardno ERI

DATE: 05/26/12

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

Temperature 1.8 °C - 0.3 °C (CF) = 1.5 °C ☑ Blank ☐ Sample

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

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

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

Ambient Temperature: ☐ Air ☐ Filter Initial: YC

CUSTODY SEALS INTACT:

☑ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: YC

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present Initial: TS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collect on date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Water: ☐VOA ☑VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** N/A **Labeled/Checked by:** TS

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

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered **Scanned by:** MCC

APPENDIX D

WASTE DISPOSAL DOCUMENTATION

NON-HAZARDOUS WASTE MANIFEST

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

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. ERI 2476

2. Page 1 of 1

3. Generator's Name and Mailing Address
EMTA 70234
3450 35TH AVE
OAKLAND, CA

CARDNO ERI

4. Generator's Phone ( )

5. Transporter 1 Company Name
CARDNO ERI

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
INSTRAT, INC.
1106 C AIRPORT RD
RIO VISTA, CA 94571

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone (707) 374-3834

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZ PURGE WATER	01	POLY	103	GAL
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
BROWN, NO ODORS/SOLIDS

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: 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 | Signature | Date: Month / Day / Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Drew Hazen | Signature | Date: Month 5 / Day 30 / Year 12

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month / Day / Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: MICHAEL WHITEHEAD | Signature | Date: Month 5 / Day 30 / Year 12

NON-HAZARDOUS WASTE

APPENDIX E

FIELD DATA SHEETS

DAILY FIELD REPORT

Cardno ERI

PROJECT: 70234 JOB # + ACTIVITY: 2476

SUBJECT: QM DATE: 5-24-12

EQUIPMENT USED: _____ SHEET: ___ OF _____

NAME: Steve PROJECT MNGR: _____

Onsite 815 H&S

Open

DTW

Purge

Sample

Sampled MW 8, 9, RW1

Offsite 1215

601 N. McDowell Boulevard, Petaluma, California 94954 707 766 2000 (Fax 707 789 0414)

DAILY FIELD REPORT

Cardno ERI

PROJECT: 10234 JOB # + ACTIVITY: 2476

SUBJECT: M+S DATE: 5-24-12

EQUIPMENT USED: SHEET: 1 OF 1

NAME: DH PROJECT MNGR: Janice

Onsite 0815 Sunny 5-24-12
H+S Meeting w/ SC
Open Wells
DTW Wells

Purge + Sampled MW4, MW5, MW6

Purge 21 gal
Decon 20 gal
Total 41 gal

Offsite 1215

* MW7 DTW Only Car parked over Lid

601 N. McDowell Boulevard, Petaluma, California 94954 707 766 2000 (Fax 707 789 0414)

ERI Groundwater M+S
Depth To Water

Case Volume= H(r^2x0.163)

H=Height of Water Column in Feet
r=Radius of well casing in inches

Common conversion factors:
2"=0.163, 4"=0.652, 6"=1.457

Project: 2476' | Location: 70234 | Date: 5-24-12 | Name: DH & SC

WELL ID	WELL DIAMETER	ODOR? SHEEN?	TOTAL DEPTH	Pre-Purge DTW	Depth To PRODUCT	PRODUCT THICKNESS	COMMENTS
MW9	2		40.58	27.94			H2O
MW8	2		39.63	26.93			
MW4	2		44.73	30.02			
MW7	2		39.60	28.31			
MW5	2		39.74	30.26			H2O
MW6	2		38.25	26.36			
RW1	4		40.10	28.55			

GROUNDWATER SAMPLING FIELD LOG

Client Name: Exxon/Mobile
Location: 70234
Field Crew: Steve/Drew

ERI Job #: 2476
Field Cleaning Performed:
Analysis:

Date: 5-24-12 **Page** 1 **of**

Case Volume = (TD - DTW) x F where F =

- 0.163 for 2" inside-diameter well casing
- 0.652 for 4" inside-diamter well casing
- 1.457 for 6" inside-diamter well casing

Well ID	Time	Case Volume	Purge Volume	Temp	Cond	pH	Post-Purge DTW	80% Recharge	BB	40 mL	Amber	DO	ORP	Comments Well Box Condition
MW9	940	2.06					30.21	Y		6				
	943	3	3	16.8	720	7.21								
	947		6	16.9	825	7.13	30		1010					
	952		9	17.0	832	7.09								
MW8	1015	2.07					28.39	Y		6				
	1018	3	3	16.7	525	7.19								
	1021		6	16.8	575	7.01	28		1035					
	1024		9	16.9	616	6.98								
AW1	1055	7.53	8				30.70	Y		6				
	1105		8	17.8	1071	6.95								
	1118		16	18.1	1041	7.04	31		1150					
	1132		24	18.0	1023	7.01								

30.47

29.47

30.86

40.10

GROUNDWATER SAMPLING FIELD LOG

Client Name: Exxon
Location: 70234
Field Crew: DH+SC

ERI Job #: 2476
Field Cleaning Performed: _____
Analysis: _____

Date: 5-24-12 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-diamter well casing
1.457 for 6" inside-diamter well casing

Well ID	Time	Case Volume	Purge Volume	Temp	Cond	pH	Post-Purge DTW	80% Recharge	BB	40 mL	Amber	DO	ORP	Comments Well Box Condition
MW4	0946	7.39					32.40	Y		6				
32.97	0949	3	3	13.3	550	6.80	32			1015				
	0952		6	13.3	431	6.77								
	0955		9	13.5	425	6.65								
MW7														
							Unable to Purge Car parked on							
MW5	1019	1.54					31.97	Y		6				
32.16	1021	2	2	13.1	427	6.22	32			1045				
	1023		4	13.3	435	6.15								
	1025		6	13.2	434	6.11								
MW6	1055	1.93					28.20	Y		6				
28.74	1057	2	2	13.4	580	6.28	28			1115				
	1059		4	13.5	596	6.47								
	1101		6	13.6	600	6.46								
BB														
										1145				

WATER SAMPLING SITE STATUS

Date: 5-24-12

Inspected by: DH & SC

Cardno ERI Job No.: 2476 Station No.: 76234 Site Address: 3450 35th ave Oakland

Well ID	Well Head Screws	Rubber Gasket	Well Cap Locking	Lock on Well Cap	Concrete Well Seal	Well Head PVC	Water in Well Vault	Tabs	Well Cover	Fence/Gate Condition	# Drums	Drum Contents	Building Condition	Site Appearance	Comments / Well Covers
	N/R/ok	N/R/ok	N/R/ok	N/R/ok	N/R/ok	N/R/ok	Y / N	N/R/ok	N/R/ok	N/R/ok		s/w/e	g/v/o	N/R/ok	
MW4	OK	OK	OK	OK	OK	OK	N	OK	OK	OK	NA	NA	g	OK	
MW5							Y								H2O
MW6							N								
MW7							N								
MW8							N								
MW9							Y								H2O
RW1							N								

N = Not repairable in time available-see comments.
R = Repaired-see comments
ok = No action needed.

Y = Yes.
N = No.

s = Soil.
w = Water.
e = Empty.

g = Graffitti on walls.
v = Vagrants (or evidence of).
o = Open (not secured).