ExxonMobil Environmental Services Company

4096 Piedmont Avenue #194 Oakland, California 94611 510 547 8196 Telephone 510 547 8706 Facsimile

RECEIVED

10:18 am, Sep 23, 2009

Alameda County Environmental Health Jennifer C. Sedlachek Project Manager

E%onMobil

September 18, 2009

Mr. Jerry T. Wickham Alameda County Health Care Services Agency 1131 Harbor Bay Parkway Alameda, California 94502-6577

Subject:

Fuel Leak Investigation Site No. RO0002635

Former Exxon RAS #74121, 10605 Foothill Boulevard, Oakland, California

Dear Mr. Wickham:

Attached for your review and comment is a copy of the *Report of Groundwater Monitoring, Third Quarter 2009* for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the August 2009 sampling event.

Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached report is true and correct.

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

Sincerely,

Jennifer C. Sedlachek Project Manager

Attachment: ETIC Groundwater Monitoring Report

c: w/ attachment:

Mr. Ken Phares - MacArthur Boulevard Associates, Oakland, California

Mr. Peter McIntyre - AEI Consultants

Jedhaell-

c: w/o attachment:

Mr. Bryan Campbell - ETIC Engineering, Inc.



Report of Groundwater Monitoring Third Quarter 2009

Former Exxon Retail Site 74121 10605 Foothill Boulevard Oakland, California

Prepared for

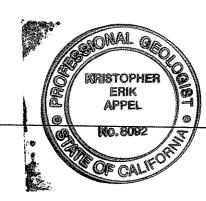
ExxonMobil Oil Corporation

Prepared by

ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, California 94523 (925) 602-4710

K. Erik Appel, 7.G. #8092

Senior Project Geologist



Jostonber 18, 2009

SITE CONTACTS

Site Name: Former Exxon Retail Site 74121

Site Address: 10605 Foothill Boulevard

Oakland, California

ExxonMobil Project Manager: Jennifer C. Sedlachek

ExxonMobil Environmental Services Company

4096 Piedmont Avenue #194 Oakland, California 94611

(510) 547-8196

Consultant to ExxonMobil: ETIC Engineering, Inc.

2285 Morello Avenue

Pleasant Hill, California 94523

(925) 602-4710

ETIC Project Manager: K. Erik Appel

Regulatory Oversight: Jerry T. Wickham

Alameda County Health Care Services Agency

Environmental Health Services 1131 Harbor Bay Parkway

Alameda, California 94502-6577

(510) 567-6765

INTRODUCTION

ETIC Engineering, Inc. (ETIC) has prepared this quarterly groundwater monitoring report for ExxonMobil Environmental Services Company on behalf of ExxonMobil Oil Corporation for former Exxon Retail Site 74121. This report presents the results for the most recent groundwater monitoring conducted at the site and summarizes recent site activities. This report covers site activities from 12 March 2009, the date of the previous monitoring event, until 12 August 2009, the date of the most recent quarterly monitoring event. Groundwater monitoring results, well construction details, and a groundwater monitoring plan are provided in the attached figures and tables. Groundwater monitoring protocols, field data, and analytical results are provided in the attached appendixes.

GENERAL SITE INFORMATION

Site name: Former Exxon Retail Site 74121

Site address: 10605 Foothill Boulevard, Oakland, California

Current property owner: MacArthur Boulevard Associates

Current site use: Landscaped area

Current phase of project: Groundwater monitoring

Tanks at site: Underground storage tanks removed in 1981 or 1982

Number of wells: 4 (4 onsite, 0 offsite)

GROUNDWATER MONITORING SUMMARY

Gauging and sampling date: 12 August 2009

Wells gauged and sampled: MW1, MW2, MW3, MW5

Wells gauged only:

Groundwater flow direction:

North
Groundwater gradient:

Well screens submerged:

None

Well screens not submerged: MW1, MW2, MW3, MW5
Liquid-phase hydrocarbons: Not observed or detected

Laboratory: Calscience Environmental Laboratories, Inc., Garden Grove,

California

Analyses performed:

- Total Petroleum Hydrocarbons as gasoline by EPA Method 8015B (M)
- Total Petroleum Hydrocarbons as diesel by EPA Method 8015B (M)
- Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B
- Methyl tertiary butyl ether, ethyl tertiary butyl ether, tertiary amyl methyl ether, tertiary butyl alcohol, diisopropyl ether, 1,2-dibromoethane, and 1,2-dichloroethane by EPA Method 8260B

ADDITIONAL ACTIVITIES PERFORMED

The Alameda County Health Care Services Agency (ACHCSA) sent a letter dated 22 May 2009 approving the proposed remediation excavation for the site. Additionally, the ACHCSA requested that groundwater monitoring and sampling be reduced to semi-annual. Planning and permitting for the proposed excavation was conducted.

WORK PROPOSED FOR NEXT QUARTER

An excavation at the site is planned.

Groundwater will be monitored according to the attached groundwater monitoring plan.

Attachments:

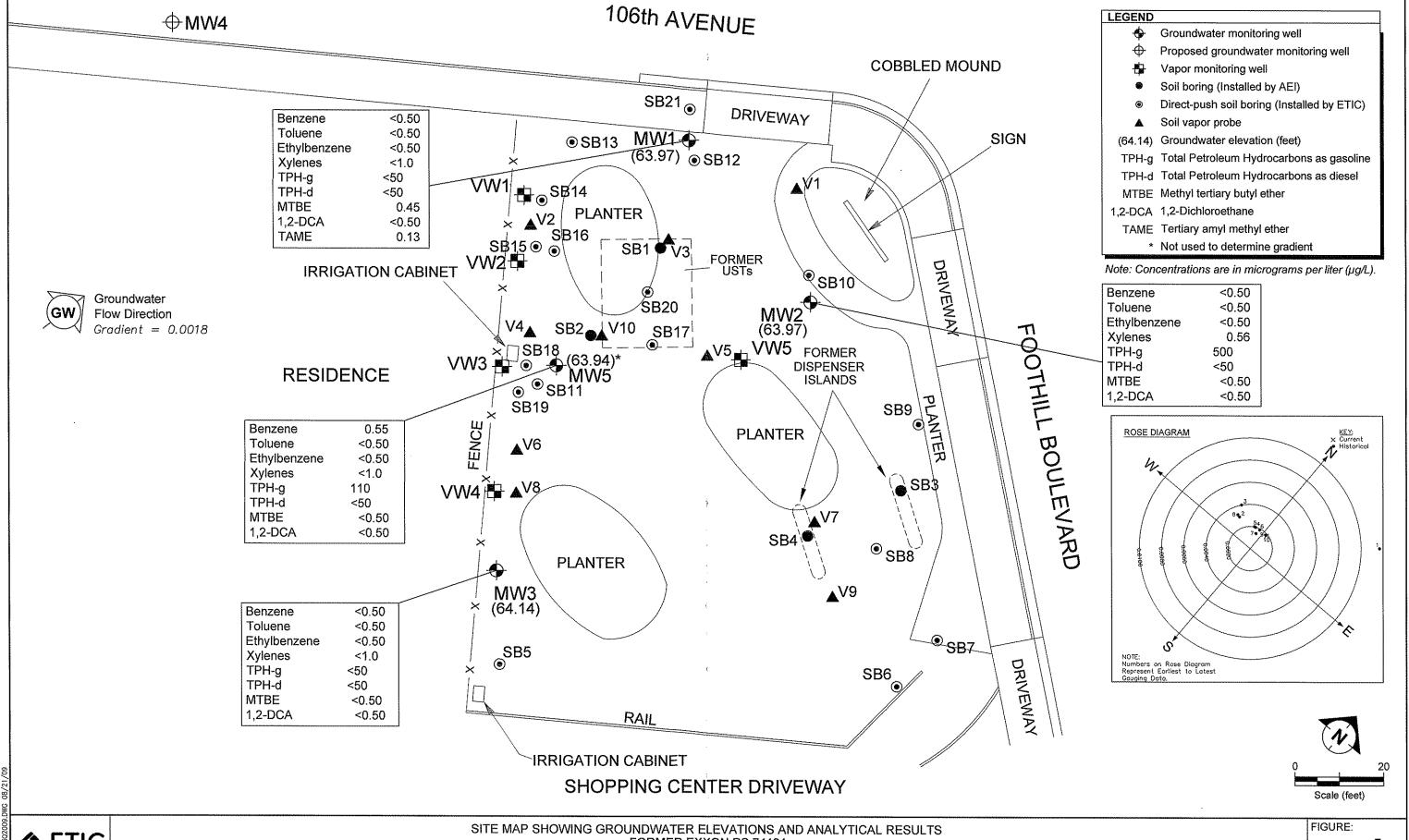
Figure 1: Site Map Showing Groundwater Elevations and Analytical Results

Table 1: Well Construction DetailsTable 2: Groundwater Monitoring DataTable 3: Groundwater Monitoring Plan

Appendix A: Field Protocols Appendix B: Field Documents

Appendix C: Laboratory Analytical Reports and Chain-of-Custody Documentation





ETIC ENGINEERING SITE MAP SHOWING GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS
FORMER EXXON RS 74121
10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA
12 AUGUST 2009

1



TABLE 1 WELL CONSTRUCTION DETAILS, FORMER EXXON RS 74121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Well Number		Well Installation Date	Elevation TOC (feet)	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	a	01/23/07	82.47	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
MW2	a	01/23/07	84.40	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
MW3	a	01/24/07	83.25	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
MW5	a	01/23/07	82.65	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
VW1	a	01/22/07		SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW2	a	01/22/07		SS	6	. 6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW3	a	01/22/07		SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW4	a	01/22/07		SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW5	a	01/22/07	77.77	SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW6	b	03/23/09		SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW7	b	03/23/09		SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW8	b	03/23/09		SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW9	ь	03/23/09	770 MT	SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW10	b	03/23/09		SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW11	b	03/23/09		SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW12	b	03/23/09		SS	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand

TABLE 1	WELL CONSTRUCTION DET	IF C CODMED EVVONIDE 74121	, 10605 FOOTHILL BOULEVARD,	OAKLAND CALIEODNIA
IADLEI	WELL CONSTRUCTION DEL	ILS, PURWER EXAON RS /4121	. 10003 FOOTHILL BOOLEVARD.	OAKLAND, CALIFORNIA

	Well Elevati	on	Total	Well	Borehole	Casing	Screened		Filter Pack	
Well Ins	tallation TOC	Casing	Depth	Depth	Diameter	Diameter	Interval	Slot Size	Interval	Filter Pack
Number	Date (feet	Material	(feet)	(feet)	(inches)	(inches)	(feet)	(inches)	(feet)	Material

Notes:

a Well surveyed on 12 March 2007 by Morrow Surveying.

b Well surveyed on 4 May 2009 by Morrow Surveying.

PVC Polyvinyl chloride.
SS Stainless steel.
TOC Top of casing.

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RETAIL SITE 74121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

		Top of Casing	Depth to	Groundwater	LPH	LPH Concentration (µg/L)												
		Elevation	Water	Elevation	Thickness			Ethyl-	**			<u>V</u>	·	***************************************		·······		***************************************
Well ID	Date	(feet)	(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	MTBE	TBA	DIPE	ETBE	1,2-DCA	TAME	EDB
MWI	03/08/07	82,47	15.10	67.37	0.00	<1.00	1.21	<1.00	<3.00	440	119	1.91	<10.0	< 0.500	<0.500	< 0.500	0.560	< 0.500
MWI	06/08/07	82.47	16.47	66.00	0.00	< 0.50	< 0.50	< 0.50	< 0.50	127	<47.6	0.880	$< 10.0^{a,b}$	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
MWI	09/06/07	82.47	17.47	65.00	0.00	< 0.50	< 0.50	< 0.50	< 0.50	78.0	<47.2	0.590	<10.0 ^{a,b}	< 0.500	< 0.500	<0.500	< 0.500	< 0.500
MW1	12/03/07	82.47	18.10	64.37	0.00	< 0.50	< 0.50	< 0.50	< 0.50	<50	<47	< 0.50	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
MWI	03/19/08	82.47	16.20	66.27	0.00	<0.50	< 0.50	< 0.50	< 0.50	51.3	61 ^e	3.08	<10.0	<0.500	< 0.500	< 0.500	0.930	< 0.500
MWI	06/11/08	82.47	17.24	65.23	0.00	<0.50	< 0.50	< 0.50	< 0.50	<50	<47	0.99	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
MWI	09/16/08	82.47	18.37	64.10	0.00	< 0.50	< 0.50	< 0.50	< 0.50	<50	<47	< 0.50	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
MWI	12/01/08	82.47	18.85	63.62	0.00	<0.50	<0.50	<0.50	< 0.50	<50	<47	< 0.50	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
MWl	03/12/09	82.47	16.92	65.55	0.00	< 0.50	< 0.50	< 0.50	<1.0	68	<50	0.80	<10	< 0.50	< 0.50	< 0.50	<0.50	< 0.50
MW1	08/12/09	82.47	18.50	63.97	0.00	< 0.50	< 0.50	<0.50	<1.0	<50	<50	0.45	<10	< 0.50	<0.50	<0.50	0.131	< 0.50
MW2	03/08/07	84.40	16.97	67.43	0.00	1.33	3.52	2.41	<3.00	1,620	550	< 0.500	<10.0	< 0.500	<0.500	< 0.500	<0.500	<0.500
MW2	06/08/07	84.40	18.34	66.06	0.00	21.8	2.45	0.66	< 0.50	2,120	395	< 0.500	10.0°	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
MW2	09/06/07	84.40	19.33	65.07	0.00	4.66	0.70	< 0.50	1.25	470	208	< 0.500	<10.0 ^{a,c}	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
MW2	12/03/07	84.40	19.97	64.43	0.00	22 ^d	< 0.50	< 0.50	< 0.50	560	120 ^e	< 0.50	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
MW2	03/19/08	84.40	18.07	66.33	0.00	5.33	< 0.50	< 0.50	0.82	630	200°	< 0.500	<10.0	< 0.500	< 0.500	< 0.500	< 0.500	<0.500
MW2	06/11/08	84.40	19.13	65.27	0.00	<0.50	<0.50	<0.50	<0.50	430	110 ^e	<0.50	<20	< 0.50	< 0.50	<0.50	< 0.50	<0.50
MW2	09/16/08	84.40	20.25	64.15	0.00	8.1 ^d	<0.50	<0.50	<0.50	230	63°	<0.50	<20	<0.50	<0.50	<0.50	< 0.50	<0.50
MW2	12/01/08	84.40	20.75	63.65	0.00	<0.50	<0.50	<0.50	<0.50	250	58°	<0.50	<20	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	03/12/09	84.40	18.85	65.55	0.00	<0.50	<0.50	<0.50	0.75 ^f	940	<50	<0.50		<0.50	<0.50			
MW2	08/12/09	84.40	20.43	63.97	0.00	<0.50	<0.50	0.56	<1.0	500	<50	<0.50	<10 <10	<0.50	<0.50	<0.50 < 0.50	<0.50 < 0.50	<0.50 < 0.50
	V 01 X 21 V 2	4.7.1	40110	00177	0.00	19420	-0.00	0.00	-210	500	-50	10100	-10	10.20	10.00	10.00	-0.50	10200
MW3	03/08/07	83.25	15.49	67.76	0.00	<1.00	<1.00	<1.00	<3.00	<100	52.9	<0.500	<10.0	<0.500	< 0.500	< 0.500	< 0.500	< 0.500
MW3	06/08/07	83.25	17.02	66.23	0.00	< 0.50	< 0.50	< 0.50	< 0.50	<50.0	<47.6	< 0.500	$<10.0^{a,b}$	< 0.500	< 0.500	<0.500	< 0.500	< 0.500
MW3	09/06/07	83.25	18.07	65.18	0.00	< 0.50	< 0.50	< 0.50	< 0.50	<50.0	<47.2	<0.500	<10.0 ^{a,b}	<0.500	< 0.500	< 0.500	< 0.500	< 0.500
MW3	12/03/07	83.25	18.69	64.56	0.00	< 0.50	< 0.50	< 0.50	< 0.50	<50	<47	< 0.50	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
MW3	03/19/08	83.25	16.79	66.46	0.00	<0.50	<0.50	< 0.50	<0.50	<50.0	<47	<0.500	<10.0	<0.500	< 0.500	< 0.500	<0.500	<0.500
MW3 MW3	06/11/08 09/16/08	83.25 83.25	17.82 18.99	65.43 64.26	0.00 0.00	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<50 <50	<47	<0.50	<20	<0.50	< 0.50	<0.50	<0.50	<0.50
MW3	12/01/08	83.25	19.46	63.79	0.00	< 0.50	<0.50	<0.50	<0.50	<50 <50	<47 <47	<0.50 <0.50	<20 <20	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50
MW3	03/12/09	83.25	17.53	65.72	0.00	< 0.50	< 0.50	< 0.50	<1.0	<50	<50	< 0.50	<10	<0.50	< 0.50	< 0.50	<0.50	<0.50
MW3	08/12/09	83.25	19.11	64.14	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50
MW5	03/08/07	82.65	14.31	68.34	0.00	<1.00	<1.00	<1.00	<3.00	187	59.2	<0.500	<10.0	<0.500	<0.500	<0.500	<0.500	<0.500
MW5	06/08/07	82.65	16.64	66.01	0.00	4.38	0.72	<0.50	<0.50	780	90.3	<0.500	<10.0 ^{a,b}	<0.500		<0.500		
													<10.0 ^{a,b}		<0.500		<0.500	<0.500
MW5	09/06/07	82.65	17.62	65.03	0.00	<0.50	<0.50	<0.50	<0.50	<50.0	121	<0.500		<0.500	<0.500	<0.500	<0.500	<0.500
MW5	12/03/07	82.65	18.27	64.38	0.00	<0.50	<0.50	<0.50	<0.50	100	65°	<0.50	<20	<0.50	<0.50	<0.50	<0.50	<0.50
MW5	03/19/08	82.65	16.37	66.28	0.00	0.69	<0.50	<0.50	0.87	237	110 ^e	<0.500	<10.0	<0.500	< 0.500	<0.500	<0.500	< 0.500
MW5	06/11/08	82.65	17.40	65.25	0.00	< 0.50	< 0.50	<0.50	0.65	83	77°	< 0.50	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
MW5	09/16/08	82.65	18.54	64.11	0.00	< 0.50	<0.50	< 0.50	<0.50	120	<47	<0.50	<20	<0.50	<0.50	<0.50	<0.50	< 0.50
MW5	12/01/08	82.65	19.00	63.65	0.00	<0.50	<0.50	<0.50	<0.50	140	<47	<0.50	<20	<0.50	< 0.50	<0.50	<0.50	<0.50
MW5	03/12/09	82.65	17.09	65.56	0.00	0.21 ^f	<0.50	<0.50	0.85 ^f	410	<50	<0.50	<10	< 0.50	< 0.50	<0.50	<0.50	0.19 ^f
MW5	08/12/09	82.65	18.71	63.94	0.00	0.55^{8}	<0.50	<0.50	<1.0	110	<50	< 0.50	<10	< 0.50	< 0.50	<0.50	< 0.50	< 0.50

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RETAIL SITE 74121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

		Top of Casing	Depth to	Groundwater	LPH						Concen	tration (µg/L)						
		Elevation	Water	Elevation	Thickness			Ethyl-										
Well ID	Date	(feet)	(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	MTBE	TBA	DIPE	ETBE	I,2-DCA	TAME	EDB

Notes: MTBE analyzed by EPA Method 8260B unless otherwise indicated.

- a Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- Laboratory control sample and/or laboratory control sample duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
- c Initial analysis within holding time. Reanalysis for the required dilution or confirmation was past holding time.
- d The relative percent difference between the primary and confirmatory analysis exceeded 40%. Per EPA Method 8000B, the higher value was reported.
- Does not match typical pattern.
- f Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
- g Analyte presence was not confirmed by second column or GC/MS analysis.

1.2-DCA 1.2-Dichloroethane.

DIPE Diisopropyl ether.

EDB 1.2-Dibromoethane.

ETBE Ethyl tertiary butyl ether.

MTBE Methyl tertiary butyl ether.

TAME Tertiary amyl methyl ether.

TBA Tertiary butyl alcohol.

TPH-d Total Petroleum Hydrocarbons as diesel analyzed by EPA Method 8015B.

TPH-g Total Petroleum Hydrocarbons as gasoline analyzed by EPA Method 8015B.

μg/L Micrograms per liter.

GROUNDWATER MONITORING PLAN, FORMER EXXON RS 74121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

	Groundwater	Groundwater	Sampling and Analy	sis Frequency
Well	Gauging	TPH-g, TPH-d, and		Other Oxygenates
Number	Frequency	BTEX	MTBE	and Additives
MW1	SA	SA	SA	SA
MW2	SA	SA	SA	SA
MW3	SA	SA	SA	SA
MW5	SA	SA	SA	SA
Notes:		es include diisopropyl ether, ter , 1,2-dibromoethane, and 1,2-d		tertiary amyl methyl ether,
BTEX MTBE	Benzene, toluene, ethyll Methyl tertiary butyl eth	•		
SA	* * *	he first and third quarters).		
TPH-g	Total Petroleum Hydrod	* *		
TPH-d	Total Petroleum Hydrod	Ü		

Appendix A

Field Protocols

PROTOCOLS FOR QUARTERLY GROUNDWATER MONITORING

GROUNDWATER GAUGING

Wells are opened prior to gauging to allow the groundwater level in the wells to equilibrate with atmospheric pressure. The depth to groundwater and depth to liquid-phase hydrocarbons, if present, are then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements are made from a permanent reference point at the top of the well casing. If less than 1 foot of water is measured in a well, the water is bailed from the well and, if the well does not recover, the well is considered "functionally dry." Wells with a sheen or measurable liquid-phase hydrocarbons are generally not purged or sampled.

WELL PURGING

After the wells are gauged, each well is purged of approximately 3 well casing volumes of water to provide representative groundwater samples for analysis. Field parameters of pH, temperature, and electrical conductance are measured during purging to ensure that these parameters have stabilized before groundwater in a well is sampled. Groundwater in each well is purged using an inertial pump (WaTerra), an electric submersible pump, or a bailer. After the well is purged, the water level is checked to ensure that the well has recharged to at least 80 percent of its original water level.

GROUNDWATER SAMPLING

After purging, groundwater in each well is sampled using dedicated tubing and an inertial pump (WaTerra) or a factory-cleaned disposable bailer. Samples from extraction wells are typically collected from sample ports associated with the groundwater remediation system. Samples collected for volatile organic analysis are placed in Teflon septum-sealed 40-milliliter glass vials. Samples collected for diesel analysis are placed in 1-liter amber glass bottles. Each sample bottle is labeled with the site name, well number, date, sampler's initials, and preservative. The samples are placed in a cooler with ice for delivery to a state-certified laboratory. The information for each sample is entered on a chain-of-custody form prior to transport to the laboratory.

Appendix B

Field Documents



MONITORING WELL DATA FORM

Client: Former Exxon 74121	Date: 68-12-9
Project Number: UP4121.1.6	Station Number: 74121
Site Location:	Samplers: AUEX
10605 Foothill Boulevard, Oakland, CA	
APPADENT	

IUOUS FOOTHII	i Boulevard, C	Dakland, CA		j			
MONITORING WELL NUMBER	DEPTH TO WATER (TOC)FT.	DEPTH TO PRODUCT (TOC)FT.	APPARENT PRODUCT THICKNESS (FT.)	AMOUNT OF PRODUCT REMOVED(L)	MONITORING WELL INTEGRITY	DEPTH TO BOTTOM (TOC)	WELL CASING DIAMETER
MW1	/8-50					2425	2//
MW2	20.43					24.71	211
MW3	19-71					23.60	20
MW5	B-71					25-37	21

V							
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						77777777777777777777777777777777777777	

ETIC

Project Name:	Exxon 74121			Well No:	nu 1	Date:	08-12-09				
Project No:	UP4121.1.6			Personnel:	Aux						
GAUGING DATA Water Level Mea		WLM / IP		Measuring P	oint De	escription: TOC					
WELL PURGE VOLUME	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier Casing Diar		Casing Volume (gal)	Total Purge Volume (gal)				
CALCULATION	24.05	\8.50 E	555 (1 2 4 0.04 0.16 0.6		. LL	266				
PURGING DATA Purge Method: WAPERRA/ BAILER / SUB Purge Rate: GPM											
Time	0923	4925	927								
Volume Purge (gal)	1	2	in the second				<u> </u>				
Temperature (C)	193	19.1	19.0								
рН	4.82	6.81	683								
Spec.Cond.(umhos)	1356	1359	1354								
Turbidity/Color	SIND / BEN	SILTY/BEN	SILD/BEN								
Odor (Y/N)	N	N	~								
Casing Volumes	1	2	3								
Dewatered (Y/N)	N	N	N								
Comments/Obser	vations:										

SAMPLING DA' Time Sampled:	1A 09	40	Approximate Dept	h to Water Dur	ing San	nolina: 19-0	(feet)				
Comments:							(1.001)				
	and buse sections the	Liberture and the second	Active Security		Name (Name of the Control of the Con						
Sample Number	Number of Containers	Container Type	Preservative	Volume F (mL or I		Turbidity// Color	Analysis Method				
Meri	69	Voa	HCL	40 ml	201000000000000000000000000000000000000		TPH-g, BTEX, MTBE				
MWI	2	AMBERS	NONE	1L			TPH-D				
Total Purge Vol	ume: 😘	(gallons)	***************************************	Disposal:		SYSTEM					
Weather Conditi	ions: 火	***************************************				BOLTS (9 / N				
Condition of We	II Box and Casing	at Time of Samp				CAP & LOCK	Y// N				
	litions Requiring (runt			GROUT (<u>Y) / N</u>				
T	untered During Pu	irging and Sampli	ng: ^4^F			WELL BOX.	<u> </u>				
	Comments: SECURED / N G:\Projects\ExxonMabil\Sites\74121\Public\QM Pre-Field Folder\(74121 Scope of Work.xis)Sheet1										

Engineering, Inc.

Project Name:	Exxon 74121			Well No: MW2	Date	: 08-12-09			
Project No:	UP4121.1.6	,		Personnel:	ALX				
GAUGING DAT	A	740							
Water Level Me	asuring Method: (WLM / IP		Measuring Point D	escription: TOC				
WELL PURGE VOLUME	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter	Casing Volume (gal)	Total Purge Volume (gal)			
CALCULATION	24.71	20.43	J. 28 (1 ② 4 6 0.04 0.16 0.64 1.44	84.	2.45			
PURGING DATA	Α								
Purge Method:	WATERRA / BAI	LER/SUB		Purç	ge Rate:	GPM			
Time	0902	0904	0906						
Volume Purge (gal)	1	2	3						
Temperature (C)	19.8	19.3	19.0						
pH	6.87	6.96	6.89						
Spec.Cond.(umhos)	1219	1195	1191	de la companya de la					
Turbidity/Color	STOTE BEN	CLETTE BRN	come BRN						
Odor (Y/N)	Y	Y	Y	A POSTANCIA DE LA CASA					
Casing Volumes	1	2	3			<u> </u>			
Dewatered (Y/N)	N	N	N		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Comments/Obser	vations:								
0.5.5501 (510.10.4)									
SAMPLING DATE	1A 09	15	Annrovimate Denti	n to Water During San	anlina: 21-0	(feet)			
Comments:			Approximate Debii	to water burning San	iping.	(leet)			
Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method			
MW2	67	Voa	HCL	40 ml		TPH-g, BTEX, MTBE			
MW 2	2	AMBERS	NONE	1L		TPH-D			
Total Purge Volu		(gallons)		Disposal:	SYSTEM	1			
Weather Conditi	ons:				BOLTS	Ø/N			
Condition of We	ll Box and Casing	at Time of Samp	ling: 🚜		CAP & LOCK	P/N			
Well Head Cond	itions Requiring C	Correction:	nere		GROUT	6/ N			
	intered During Pu	rging and Sampli	ng: MME		WELL BOX.	⊘ / N			
Comments:	Comments: SECURED Ø / N								

SETIC ENGINEERING

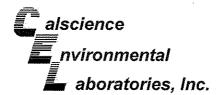
Engineering, Inc.								
Project Name:	Exxon 74121			Well No: MW	S Date:	08-12-09		
Project No:	UP4121.1.6	***************************************		Personnel: A	×	,		
GAUGING DAT Water Level Mea	A asuring Method:	WĹM / IP		Measuring Point D	escription: TOC	MARKET TO THE PROPERTY OF THE PARTY OF THE P		
WELL PURGE VOLUME	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter	Casing Volume (gal)	Total Purge Volume (gal)		
CALCULATION	23.60) 19.11	4.49	1 2 4 6 0.04 0.16 0.64 1.44	. 71	2.15		
PURGING DATA Purge Method:		LER/SUB		Pun	ge Rate:	GPM		
Time	0810	e8/2	08/4					
Volume Purge (gal)	,	2	3					
Temperature (C)	17.6	17.4	17-3					
pH	6.49	6.40	6.70					
SpeciCond (umhos)		1001	1611					
Turbidity/Color	SIMES / BASIN	SIND /BRN	SIUTY/BEN					
Odor (Y/N)	N	N	N					
Casing Volumes	1	2	3					
Dewatered (Y/N)	N	N	N					
Comments/Obser	vations:							
SAMPLING DATE	TA 0225		Approximate Dept	h to Water During Sar	npling: 20-0	(feet)		
Comments:								
Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method		
MW3	89	Voa	HCL	40 ml		TPH-g, BTEX, MTBE		
MU3	2	AMBERS	NONE	1L		TPH-D		
Total Purge Volu	ume:	(gallons)		Disposal:	SYSTEM			
Weather Conditi					BOLTS (Ý) / N		
Condition of We	ll Box and Casing	at Time of Samp	ling: 🚜		CAP & LOCK (Ø/ N		
Well Head Cond	litions Requiring C	Correction:	NONE		GROUT (Y) / N		
	untered During Pu	rging and Sampli		WELL BOX.	Ø/ N			
Comments: SECURED Y / N G:\Projects\ExxonMobil\Shes\74121\Public\QM Pre-Field Folder\(74121\Scope\) of \Work.xis\Sheet1								

ETIC ENGINEERING

Project Name:	Exxon 74121			Well No: Miu	5 Date	e: 08-12-59					
Project No:	UP4121.1.6			Personnel: A	r.x						
GAUGING DAT	A					***************************************					
Water Level Me	asuring Method:	WLM) / IP		Measuring Point	Description: TOC	>					
WELL PURGE VOLUME	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diamete	Casing Volum er (gal)	e Total Purge Volume (gal):					
CALCULATION	2537 (18-71	-) 6-67 (5	1 2 4 6 0.04 0.16 0.64 1.	1 /26 (3.19					
PURGING DATA	PURGING DATA										
Purge Method: WATERRA / BAILER / SUB Purge Rate: GPM											
Time	0804	/	/								
Volume Purge (gal)	1.5	3	4.5								
Temperature (C)	18.0	/	1								
pH	4.60	/	/								
Spec Cond.(umhos)	1 .					,					
Turbidity/Color	SITU/BKN	/	/			-					
Odor (Y/N)	N		/		***						
Casing Volumes	1	/ 2	3								
Dewatered (Y/N)	N	/	/								
Comments/Obser	vations:	QUI ATTREE	AT 2.	GALWS							
SAMPLING DA	TA										
Time Sampled:	0857	5	Approximate Depth	n to Water During S	iampling:	(feet)					
Comments:			7 10 10 10 10 10 10 10 10 10 10 10 10 10	. to Trater Daying C	annymig.	(ioot)					
Declare)											
Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Cold	Analysis Method					
Mu5	89	Voa	HCL	40 ml	118	TPH-g, BTEX, MTBE					
MWS	2	AMBERS	NONE	1L		TPH-D					
Total Purge Volu	n Art7	(gallons)	Disposal:	SYSTE							
Weather Conditi				BOLTS	⊘ / N						
		at Time of Samp	ling: K		CAP & LOCK	<u> </u>					
	litions Requiring (GROUT	Ø / N						
***************************************	ıntered During Pu	ırging and Sampli	MURED	WELL BOX.	Ø / N						
Comments: G:\Projects\ExxonMobil\Sites	Comments: SECURED (Y) / N G:\Projects\ExxonMobil\Sites\74121\Public\QM Pre-Field Folder\[74121\Scope of Work.xls\]Sheet1										

Appendix C

Laboratory Analytical Reports and Chain-of-Custody Documentation





August 20, 2009

Erik Appel ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850

Subject: Calscience Work Order No.: 09-08-1137

> Client Reference: ExxonMobil 74121, 10605 Foothill Boulevard,

> > CA

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/13/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

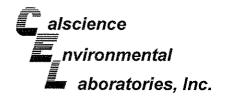
Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Cecile & ex Sain

Calscience Environmental Laboratories, Inc. Cecile deGuia **Project Manager**





ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850 Date Received: Work Order No: Preparation: Method: 08/13/09 09-08-1137 EPA 3510C EPA 8015B (M)

Project: ExxonMobil 74121, 10605 Foothill Boulevard, CA

Page 1 of 2

Client Sample Number		Lab Samp Number		Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW1	1	09-08-11	37-1-K	08/12/09 09:40	Aqueous	GC 27	-08/13/09	08/14/09 11:27	090813B20
Comment(s): -The sample	*		,	-		,			
-Results were	e evaluated to the MDL	, concentrations >	= to the	MDL but < RI	L, if found, ar	e qualified with	h a "J" flag.		
<u>Parameter</u>	Result	RL	MDL		DF	Qual	<u>Units</u>		
TPH as Diesel	ND	50	47	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits				Qual			
Decachlorobiphenyl	80	68-140							
MW2		09-08-11	37-2-K	08/12/09 09:15	Aqueous	GC (227 shaped styles)	08/13/09	08/14/09 11:45	090813B20
Comment(s): -The sample	extract was subjected t	to Silica Gel treatr	nent prio	r to analysis.					Oligon and Photograph and American
-Results were	e evaluated to the MDL	, concentrations >	= to the	MDL but < RI	_, if found, ar	e qualified with	n a "J" flag.		
Parameter	Donult	Di	MO		ne	Ouni	Ilmita		

<u>Parameter</u> Result <u>DF</u> <u>Units</u> RL MDL Qual TPH as Diesel ND 50 47 ug/L Surrogates: **REC (%)** Control Limits Qual

Decachlorobiphenyl 81 68-140

MW3 09-08-1137-3-K 08/12/09 Aqueous GC 27 08/13/09 08/15/09 090813B20 08:25

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

 Parameter
 Result
 RL
 MDL
 DF
 Qual
 Units

 TPH as Diesel
 ND
 50
 47
 1
 ug/L.

 Surrogates:
 REC (%)
 Control Limits
 Qual

Decachlorobiphenyl 77 68-140

MW5 09-08-1137-4-K 08/12/09 Aqueous GC 27 08/13/09 08/15/09 090813B20 08:50 12:21

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

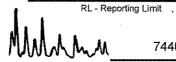
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

 Parameter
 Result
 RL
 MDL
 DF
 Qual
 Units

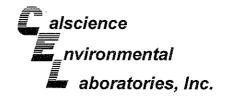
 TPH as Diesel
 ND
 50
 47
 1
 ug/L

Surrogates: REC (%) Control Limits Qual

Decachlorobiphenyl 85 68-140



DF - Dilution Factor , Qual - Qualifiers



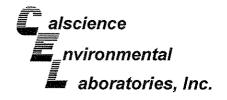


ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850 Date Received: Work Order No: Preparation: Method: 08/13/09 09-08-1137 EPA 3510C EPA 8015B (M)

Project: ExxonMobil 74121, 10605 Foothill Boulevard, CA

Page 2 of 2

Client Sample Number		Lab Samp Number		Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	Command or Approximation Command Comma	099-12-3	30-1,229		Aqueous	GC 27	08/13/09	08/14/09 10:33	090813B20
Comment(s): -Results were	evaluated to the MDL	, concentrations >	= to the I			re qualified with	n a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u>	MDL	Ţ	<u>DE</u>	Qual	<u>Units</u>		
TPH as Diesel	ND '	50	47	1			ug/L		
Surrogates:	REC (%)	Control Limits				Qual	-		
Decachlorobiphenyl	89	68-140							





ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850 Date Received: Work Order No: Preparation: Method: 08/13/09 09-08-1137 EPA 5030B EPA 8015B (M)

Project: ExxonMobil 74121, 10605 Foothill Boulevard, CA Page 1 of 2												
Client Sample Number		Lab Samp Number	e	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID			
Section 1 - Sectio	The Control of Control	09-08-11	37-1-C	08/12/09 09:40	Aqueous	GC 18	08/17/09	08/17/09 20:12	090817B01			
Comment(s): -Results were evalu						e qualified with	ı a "J" flag.					
Parameter	Result	<u>RL</u>	MDL	<u>1</u>	<u>DF</u>	Qual	<u>Units</u>					
TPH as Gasoline	ND	50	48	1			ug/L					
Surrogates:	<u>REC (%)</u>	Control Limits				Qual						
1,4-Bromofluorobenzene	86	38-134										
MW2	Service of the servic	09-08-11	37-2-C	08/12/09 09:15	Aqueous	GC 18	08/17/09	08/17/09 20:48	090817B01			
Comment(s): -Results were evalu	ated to the MDL.		= to the	MDL but < RL	., if found, ar	e qualified with	ı a "J" flag.					
Parameter	Result	<u>RL</u>	MDL	Ĩ	<u>DF</u>	Qual	<u>Units</u>					
TPH as Gasoline	500	50	48	1			ug/L					
Surrogates:	REC (%)	Control Limits				Qual						
1,4-Bromofluorobenzene	90	38-134										
MW3 State of the s		09-08-11	37-3-C	08/12/09 08:25	Aqueous	GC 18	08/17/09	08/17/09 21:24	090817B01			
Comment(s): -Results were evalu-						e qualified with	ı a "J" flag.					
<u>Parameter</u>	Result	<u>RL</u>	MDL	<u>I</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>					
TPH as Gasoline	ND	50	48	1			ug/L					
Surrogates:	<u>REC (%)</u>	Control Limits				Qual						
1,4-Bromofluorobenzene	86	38-134										
MW5	10 Aug 1 1 2 Aug 1 1 2 Aug 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	09-08-11	37-4-C	08/12/09 08:50	Aqueous	GC 18	08/17/09	08/17/09 21:59	090817B01			
Comment(s): -Results were evalu-	ated to the MDL,		= to the	MDL but < RL	, if found, ar	e qualified with	a "J" flag.					
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	1	<u>DE</u>	Qual	<u>Units</u>					
TPH as Gasoline	110	50	48	1			ug/L					
Surrogates:	REC (%)	Control Limits				Qual						
1,4-Bromofluorobenzene	86	38-134										

RL - Reporting Limit ,

DF - Dilution Factor ,





ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850 Date Received: Work Order No: Preparation: Method:

08/13/09 09-08-1137 EPA 5030B EPA 8015B (M)

Project: ExxonMobil 74121, 10605 Foothill Boulevard, CA

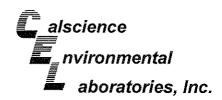
Page 2 of 2

Client Sample Number		Lab Samp Number		Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	### 1	099-12-4			Aqueous	GC 18	08/17/09	08/17/09 10:41	090817B01
Comment(s): -Results were eval	luated to the MDL	, concentrations >	·= to the l	MDL but < RL	, if found, a	re qualified with	n a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u>	MDL			<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	50	48	1			ug/L		
Surrogates:	REC (%)	Control Limits				Qual			
1,4-Bromofluorobenzene	69	38-134							



RL - Reporting Limit

DF - Dilution Factor ,





ETIC Engineering, Inc. 2285 Morello Avenue

Pleasant Hill, CA 94523-1850

Date Received: Work Order No:

Preparation: Method:

Units:

08/13/09

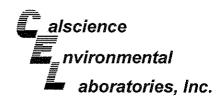
09-08-1137 EPA 5030B

EPA 8021B

Project: ExxonMobil 74	4121, 1060	5 Footh	ill Boul	evard, C	Units: A				Pa	ı ge 1	ug/L of 2
Client Sample Number			Lab Sam Numbe		Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Tim Analyzed	~~	Batch ID
MW1 Asserting to the second se	The second secon	A Committee of the Comm	09-08-11	37-1-A	08/12/09 09:40	Aqueous	GC.8	08/14/09	08/14/09 13:20	090)814B01
Comment(s): -Results were	evaluated to the	e MDL, con	centration:	s >= to the l	VIDL but < RL, if	found, are	e qualified wit	h a "J" flag.			
<u>Parameter</u>	Result	RL	MDL	DF Qual	<u>Parameter</u>			Result	RL	<u>MDL</u>	DF Qual
Benzene	ND	0.50	0.14	1	Ethylbenzene			ND	0.50	0.17	1
Toluene	ND	0.50	0.17	1	Xyienes (total))		ND	1.0	0.26	1
Surrogates:	REC (%)	Control		<u>Qual</u>							
1,4-Bromofluorobenzene	96	<u>Limits</u> 70-130									
MW2	The second secon	Control March Control	09-08-11:	37-2-A	08/12/09 / 09:15	Aqueous	GC 8	08/14/09	08/14/09 14:49	090)814B01
Comment(s): -Results were	evaluated to the	MDI con	centration	s >= to the !	MDL but < RL, if	found or	o gualifiad wit	h o # 19 floor			the state of the second
Parameter.	Result	RL	MDL	DF Qual	Parameter	iouitu, ait	e quameu wit	-	mı	NAD4	DE 0I
								Result	RL	MDL	DF Qual
Benzene Toluene	ND ND	0.50 0.50	0.14 0.17	1 1	Ethylbenzene			0.56	0.50	0.17	1
Surrogates:	REC (%)	Control	0.17	' Qual	Xylenes (total)	į.		ND	1.0	0.26	1
		Limits		SKUGE							
1,4-Bromofluorobenzene	99	70-130									
MW3			09-08-11	37-3-A	08/12/09 / 08:25	Aqueous	GC8	08/14/09	08/14/09 15:19	090	1814B01
Comment(s): -Results were	evaluated to the	MDL con	centrations	s>= to the l	VIDL but < RL, if	found are	e auslified wit	h a " l" flan			,
Parameter	Result	RL		DF Qual	Parameter	iouria, are	s quaimed wit	Result	RL	MDL	DF Qual
Benzene	ND	0.50	0.14	1	Ethylbenzene			ND	0.50	0.17	1
Toluene	ND	0.50	0.17	1	Xylenes (total)			ND	1.0	0.17	1
Surrogates:	REC (%)	Control	• • • • • • • • • • • • • • • • • • • •	Qual	Aylondo (total)			ND	1.0	0.20	,
		Limits									
1,4-Bromofluorobenzene	94	70-130									
Mws	Control of		09-08-11:	37-4-A	08/12/09 <i>/</i> 08:50	Aqueous	GC 8	08/14/09	08/14/09 15:48	090	814B01
Comment(s): -Results were	evaluated to the	MDI con	centrations	s >= to the N	MDL but < RL, if	found are	a qualified wit	h a " I" flac			
Parameter	Result	RL.		DF Qual	Parameter	rouria, ait	o quannou Wit	Result	RL	MDL	DF Qual
Benzene	0.55	0.50	0.14	1 Z	Ethylbenzene			ND	0.50	0.17	1
Toluene	ND	0.50	0.14	1	Xylenes (total)			ND ND	1.0	0.17	1
Surrogates:	REC (%)	Control	0.17	Qual	Wheres (rotal)			NU	1.0	0.20	1
to the state of th	and the second	Limits		<u></u>							
1,4-Bromofluorobenzene	96	70-130									

RL - Reporting Limit ,

DF - Dilution Factor ,





ETIC Engineering, Inc. 2285 Morello Avenue

Pleasant Hill, CA 94523-1850

Date Received: Work Order No: Preparation:

Method: Units:

EPA 5030B EPA 8021B

Project: ExxonMobil 74121, 10605 Foothill Boulevard, CA

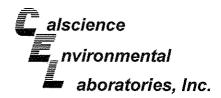
Page 2 of 2

08/13/09

ug/L

09-08-1137

Client Sample Number			Lab Samı Numbe		Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed		Batch ID
Method Blank	A STATE OF THE STA)99-12-6(NA	Aqueous	GC8	08/14/09	08/14/09 12:21	090	1814B01
Comment(s): -Results were	evaluated to the	MDL, conc	entrations	s >= to the	MDL but < RL,	if found, are	qualified with				
<u>Parameter</u>	Result	<u>RL</u>	MDL	DF Qual	<u>Parameter</u>		_	Result	<u>RL</u>	MDL.	DF Qual
Benzene	ND	0.50	0.14	1	Ethylbenzen	e	1	ND	0.50	0.17	1
Toluene	ND	0.50	0.17	1	Xylenes (tota	al)		ND	1.0	0.26	1
Surrogates:	REC (%)	Control Limits		Qual	, ,	•					
1,4-Bromofluorobenzene	100	70-130									





 ETIC Engineering, Inc.
 Date Received:
 08/13/09

 2285 Morello Avenue
 Work Order No:
 09-08-1137

 Pleasant Hill, CA 94523-1850
 Preparation:
 EPA 5030B

 Method:
 EPA 8260B

Units:

Project: ExxonMobil 74121, 10605 Foothill Boulevard, CA

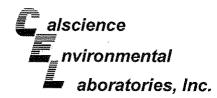
Page 1 of 2

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Client Sample Number			Lab Sam Numbe		Date/Time Collected Matrix	Instrument	Date Prepared	Date/Time Analyzed		atch ID
MW1		Control of the contro	09-08-11	37 - 1-l	08/12/09 Aqueous 09:40	GC/MS Z	08/14/09	08/14/09 18:23	09081	I4L01
Comment(s): -Results were	evaluated to the	MDL, con	centration	s >= to the !	MDL but < RL, if found, a	re qualified wi	th a "J" flag.			
Parameter	Result	<u>RL</u>	MDL	DF Qual	<u>Parameter</u>		Result	RL	MDL D	F Qual
1,2-Dibromoethane	ND	0.50	0.12	1	Diisopropyl Ether (DIPI	Ξ)	ND	0.50	0.028	1
1,2-Dichloroethane	ND	0.50	0.080	1	Ethyl-t-Butyl Ether (ET	,	ND		0.036	1
Methyl-t-Butyl Ether (MTBE)	0.45	0.50	0.067	1 ј	Tert-Amyl-Methyl Ether	(TAME)	0.13	0.50	0.030	1 .
Tert-Butyl Alcohol (TBA)	ND	10	2.1	1	, , ,	,				
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:		REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	122	80-128			Dibromofluoromethane		114	80-127		
Toluene-d8	102	80-120			1,4-Bromofluorobenzer		95	68-120		
MW2	and the property of the control of t	January Market Community of the Communit	09-08-11	37-2-1	08/12/09 Aqueous 09:15	GC/MS Z	08/14/09	08/14/09 18:50	09081	I4L01
Comment(s): -Results were	evaluated to the	MDL, con	centrations	s >= to the l	WDL but < RL, if found, a	re qualified wit	h a "J" flag			-
<u>Parameter</u>	Result	RL			<u>Parameter</u>	, - 4	Result	RL	MDL D	F Qual
1,2-Dibromoethane	ND	0.50	0.12	1	Diisopropyl Ether (DIPI	Ξ)	ND	0.50	0.028	1
1.2-Dichloroethane	ND	0.50	0.080	1	Ethyl-t-Butyl Ether (ETI		ND		0.036	1
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.067	1	Tert-Amyl-Methyl Ether	,	ND		0.030	1
Tert-Butyl Alcohol (TBA)	ND	10	2.1	1	,	, ,		0.00		
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:		REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	113	80-128			Dibromofluoromethane		109	80-127		
Toluene-d8	106	80-120			1,4-Bromofluorobenzer	пе	96	68-120		
MW3	The state of the s	A company of the comp	09-08-11:	37-3-1	08/12/09 Aqueous 08:25	GC/MS Z	08/14/09	08/14/09 19:18	09081	4L01
Comment(s): -Results were	evaluated to the	MDL, con	centrations	s >= to the f	VIDL but < RL, if found, a	re qualified wit	h a "J" flag.			
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	DF Qual	<u>Parameter</u>		Result	<u>RL</u>	MDL D	F Qual
1,2-Dibromoethane	ND	0.50	0.12	1	Diisopropyl Ether (DIPE	Ξ)	ND	0.50	0.028	1
1,2-Dichloroethane	ND	0.50	0.080	1	Ethyl-t-Butyl Ether (ETI	BE)	ND		0.036	1
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.067	1	Tert-Amyl-Methyl Ether	(TAME)	ND	0.50	0.030	1
Tert-Butyl Alcohol (TBA)	ND	10	2.1	1		•				
Surrogates:	REC (%)	Control		<u>Qual</u>	Surrogates:		REC (%)	Control		Qual
		<u>Limits</u>						<u>Limits</u>		
1,2-Dichloroethane-d4	110	80-128			Dibromofluoromethane		104	<u>Limits</u> 80-127		

RL - Reporting Limit

DF - Dilution Factor ,





ETIC Engineering, Inc. 2285 Morello Avenue

Pleasant Hill, CA 94523-1850

Date Received: Work Order No: Preparation: Method:

Units:

09-08-1137 EPA 5030B EPA 8260B

PA 8260B ua/L

08/13/09

Project: ExxonMobil 74	Pa	Page 2 of 2								
Client Sample Number			Lab Sam Numbe	•	Date/Time Collected Matrix	Instrument	Date t Prepared	Date/Tim Analyzed	_ ^^	Batch ID
### ### ### ### #### #### ############	and the comments of the commen		09-08-11	37.41	08/12/09 Aqueous 08:50	GC/MS Z	08/14/09	08/14/09 19:45	090	814L01
Comment(s): -Results were	evaluated to the	MDL, con	centration	s >= to the I	VIDL but < RL, if found, a	re qualified w	ith a "J" flag.			
<u>Parameter</u>	Result	<u>RL</u>	MDL	DF Qual	<u>Parameter</u>		Result	RL	MDL	DF Qual
1,2-Dibromoethane	ND	0.50	0.12	1	Diisopropyl Ether (DIPI	Ξ)	ND	0.50	0.028	1
1,2-Dichloroethane	ND	0.50	0.080	1	Ethyl-t-Butyl Ether (ET	ΒÉ)	ND	0.50	0.036	1
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.067	1	Tert-Amyl-Methyl Ether	(TAME)	ND	0.50	0.030	1
Tert-Butyl Alcohol (TBA)	ND	10	2.1	1						
Surrogates:	REC (%)	Control		<u>Qual</u>	Surrogates:		REC (%)	Control		Qual
d O Dishlamathama at	404	Limits			- 11 <i>-</i> 11			<u>Limits</u>		
1,2-Dichloroethane-d4	124	80-128			Dibromofluoromethane		102	80-127		
Toluene-d8	103	80-120	. Same Appendiction of the	988 1 12. N. N.	1,4-Bromofluorobenzer	ie	97	68-120		
Method Blank		Company of the Compan	099-10-0	25-1,163	N/A Aqueous	GC/MS Z	08/14/09	08/14/09 14:16	090	814L01
Comment(s): -Results were	evaluated to the	MDL, con	centration	s >= to the I	MDL but < RL, if found, a	re qualified wi	ith a "J" flag.			
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	MDL	DF Qual			Result	RL	MDL	DF Qual
1,2-Dibromoethane	ND	0.50	0.12	1	Diisopropyl Ether (DIPI	Ξ)	ND	0.50	0.028	1
1,2-Dichloroethane	ND	0.50	0.080	1	Ethyl-t-Butyl Ether (ETI	э́Е)	ND		0.036	1
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.067	1	Tert-Amyl-Methyl Ether	(TAME)	ND	0.50	0.030	1
Tert-Butyl Alcohol (TBA)	ND	10	2.1	1	, ,	,				
Surrogates:	REC (%)	Control Limits		<u>Qual</u>	Surrogates:		REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	121	80-128			Dibromofluoromethane		110	80-127		
Toluene-d8	101	80-120			1,4-Bromofluorobenzer	e	94	68-120		

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DF - Dilution Factor ,



Quality Control - Spike/Spike Duplicate



ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850 Date Received: Work Order No: Preparation: Method: 08/13/09 09-08-1137 EPA 5030B EPA 8015B (M)

Project ExxonMobil 74121, 10605 Foothill Boulevard, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	A	Date nalyzed	MS/MSD Batch Number
09-08-1225-4	Aqueous	GC 18	08/17/09		8/17/09	090817501
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	<u>Qualifiers</u>
TPH as Gasoline	105	104	68-122	1	0-18	

Allena_



Quality Control - Spike/Spike Duplicate



ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850

Date Received: Work Order No: Preparation: Method: 08/13/09 09-08-1137 EPA 5030B EPA 8021B

Project ExxonMobil 74121, 10605 Foothill Boulevard, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
09-08-0816-1	Aqueous	GC 8	08/14/09		08/14/09	090814801
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	78	85	57-129	8	0-23	
Toluene	100	108	50-134	8	0-26	
Ethylbenzene	76	82	58-130	8	0-26	
p/m-Xylene	76	81	58-130	7	0-28	
o-Xylene	73	79	57-123	7	0-26	
Methyl-t-Butyl Ether (MTBE)	82	89	44-134	8	0-27	





Quality Control - Spike/Spike Duplicate



ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850 Date Received: Work Order No: Preparation: Method: 08/13/09 09-08-1137 EPA 5030B EPA 8260B

Project ExxonMobil 74121, 10605 Foothill Boulevard, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
09-08-1138-7	Aqueous	GC/MS/Z	08/14/09		08/14/09	090814501
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	104	104	76-124	0	0-20	
Carbon Tetrachloride	123	122	74-134	1	0-20	
Chlorobenzene	101	101	80-120	0	0-20	
1,2-Dibromoethane	107	109	80-120	2	0-20	
1,2-Dichlorobenzene	98	101	80-120	3	0-20	
1,1-Dichloroethene	94	103	73-127	10	0-20	
Ethylbenzene	101	102	78-126	1	0-20	
Toluene	104	103	80-120	0	0-20	
Trichloroethene	98	98	77-120	1	0-20	
Vinyl Chloride	113	112	72-126	1	0-20	
Methyl-t-Butyl Ether (MTBE)	109	117	67-121	7	0-49	
Tert-Butyl Alcohol (TBA)	93	93	36-162	1	0-30	
Diisopropyl Ether (DIPE)	105	105	60-138	0	0-45	
Ethyl-t-Butyl Ether (ETBE)	119	119	69-123	0	0-30	
Tert-Amyl-Methyl Ether (TAME)	115	116	65-120	1	0-20	
Ethanol	80	61	30-180	27	0-72	

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ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850 Date Received: Work Order No:

Preparation: Method:

N/A 09-08-1137 EPA 3510C EPA 8015B (M)

Project: ExxonMobil 74121, 10605 Foothill Boulevard, CA

Quality Control Sample ID	Matrix	instrument	Date Prepared	Date Analyze	d	LCS/LCSD Batch Number)
099-12-330-1,229	Aqueous	GC 27	08/13/09	08/14/09	And the second	090813B20	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Parameter	LCS %	REC LCSE) %REC %	REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	101	98	3	75-117	3	0-13	

RPD - Rela





ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850 Date Received: Work Order No: Preparation:

Method:

N/A 09-08-1137 EPA 5030B EPA 8015B (M)

Project: ExxonMobil 74121, 10605 Foothill Boulevard, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	l	LCS/LCSD Bate Number	'n	
099-12-436-3,665	Aqueous	GC 18	08/17/09	08/17/09	And the second s	090817B01	A production of the control of the c	
<u>Parameter</u>	LCS %RE	C LCSD S	<u>%REC</u> %R	EC CL	<u>RPD</u>	RPD CL	Qualifiers	
TPH as Gasoline	97	99	7	8-120	2	0-10		

RPD - Rela





ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850 Date Received: Work Order No: Preparation:

Method:

N/A 09-08-1137 EPA 5030B EPA 8021B

Project: ExxonMobil 74121, 10605 Foothill Boulevard, CA

Quality Control Sample ID	Matrix In	nstrument	Date Prepared	Date Analyzed	LCS/LCSD Bat Number	ch	
099-12-667-535	Aqueous	GC 8	08/14/09	08/14/09	090814B01		
<u>Parameter</u>	LCS %REC	LCSD %RE	EC %REC.C	L RPD	RPD CL	Qualifiers	
Benzene	87	80	70-118	8	0-9		
Toluene	114	105	66-114	8	0-9		
Ethylbenzene	86	79	72-114	8	0-9		
p/m-Xylene	87	80	74-116	8	0-9		
o-Xylene	86	79	72-114	8	0-9		
Methyl-t-Butyl Ether (MTBE)	89	83	41-137	7	0-13		

MMM_





ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523-1850 Date Received: Work Order No: Preparation: Method: N/A 09-08-1137 EPA 5030B EPA 8260B

Project: ExxonMobil 74121, 10605 Foothill Boulevard, CA

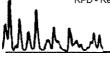
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal	ate yzed	LCS/LCSD Numbe	
099-10-025-1,163	Aqueous	GC/MS Z	08/14/09	08/14	/09	090814L	0.1
<u>Parameter</u>	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	106	106	80-120	73-127	0	0-20	
Carbon Tetrachloride	123	123	74-134	64-144	0	0-20	
Chlorobenzene	101	104	80-120	73-127	3	0-20	
1,2-Dibromoethane	116	118	79-121	72-128	1	0-20	
1,2-Dichlorobenzene	103	102	80-120	73-127	1	0-20	
1,1-Dichloroethene	95	99	78-126	70-134	4	0-28	
Ethylbenzene	102	106	80-120	73-127	4	0-20	
Toluene	107	107	80-120	73-127	0	0-20	
Trichloroethene	100	100	79-127	71-135	0	0-20	
Vinyl Chloride	113	111	72-132	62-142	2	0-20	
Methyl-t-Butyl Ether (MTBE)	115	114	69-123	60-132	0	0-20	
Tert-Butyl Alcohol (TBA)	97	93	63-123	53-133	. 5	0-20	
Diisopropyl Ether (DIPE)	102	104	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	117	121	69-123	60-132	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	118	121	70-120	62-128	2	0-20	
Ethanol	85	74	28-160	6-182	13	0-57	

Total number of LCS compounds: 16

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass



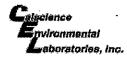


Glossary of Terms and Qualifiers



Work Order Number: 09-08-1137

Qualifier	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3 .	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD 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 with no further corrective action required.
Α	Result is the average of all dilutions, as defined by the method.
В	Analyte was present in the associated method blank.
С	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
l	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
Χ	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



7440 LINCOLN WAY GARDEN GROVE, CA 92841-1432

TEL: (714) 895-5494 . FAX: (714) 894-7501

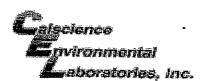
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DATE:

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2285 CITY:	Morello Avenue						PR	PROJECT CONTACT: Project Number:					T	QUOTE NO.:									
	sant Hill, CA 94523						SAN	PLER(S	ppe): (SIG	, ETIC	Eng	ineer	ng		M41:	21.1.6	<u> </u>	11-24-15-1	REE ON	o de la seco	3102310	00000	20200
TEL:	602-4710 x21	FAX: 925-602-4720		E-MAIL			SAMPLER(S): (SIGNATURE) Hu Marah							D8-1137									
	AROUND TIME	323-002-4120		j see in	structi	ons	-			/_													
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LAB USE	SAMPLE ID	LOCATION/	SAME	LING	45	*6	λα β-	× P	TPH-d by) 1. 1. 2. 1. 2. 18 18			l										
ONLY		DESCRIPTION	DATE	TIME	Na _{II}		TPH-g	BTEX	TPH	MTBE, EDB, 1 8260B													
1	MW1	ce	-12-09	0940	Water	13/4	Х	Х	Х	Х											T		
2	MW2		1	0915	Water	11 gra	~X	Х	Х	Х									\top		+		
-	MW3			0825	Water	11 \$ A	νX	Х	Х	Х				1						+	 	T	
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WORK ORDER #: **09-08-** [1] [3] [7]

SAMPLE RECEIPT FORM Cooler ___ of ___

CLIENT: ETIC DATE: 08/13/09
TEMPERATURE: (Criteria: 0.0 °C - 6.0 °C, not frozen) Temperature 2 · 4 °C - 0.2 °C (CF) = 2 · 2 °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 Metals Only PCBs Only Initial: 49
CUSTODY SEALS INTACT: □ Cooler □ □ No (Not Intact) □ Not Present □ N/A Initial: ## □ Sample □ □ No (Not Intact) □ Not Present □ N/A Initial: ## Initial: ¶
SAMPLE CONDITION: Yes No N/A Chain-Of-Custody (COC) document(s) received with samples. COC document(s) received complete. Collection date/time, matrix, and/or # of containers logged in based on sample labels. COC not relinquished. No date relinquished.
Sampler's name indicated on COC
Analyses received within holding time
Volatile analysis container(s) free of headspace
Water: UVOA DVOAh UVOAna2 125AGB 125AGBh 125AGBp 1AGB 1AGBna2 1AGBs 500AGB 2500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna 250PB 250PBn 125PB 125PBznna 100PJ 100PJna2