

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

Jennifer C. Sedlachek
Project Manager

RECEIVED

5:55 pm, Jun 27, 2012

Alameda County
Environmental Health

ExxonMobil

June 8, 2012

Mr. Jerry T. Wickham
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

RE: Former Exxon RAS #73399/2991 Hopyard Road, Pleasanton, California.

Dear Mr. Wickham:

Attached for your review and comment is a copy of the letter report entitled *Remediation Status Report, First Quarter 2012*, dated June 8, 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 *Remediation Status Report, First Quarter 2012*, dated June 8, 2012

cc: w/ attachment
Ms. Cherie McCaulou, California Regional Water Quality Control Board, San Francisco Bay Region
Mr. Matthew Katen, Zone 7 Water Agency

w/o attachment
Ms. Rebekah A. Westrup, Cardno ERI



Shaping the Future

Cardno ERI
License A/C10-611383

601 N McDowell Boulevard
Petaluma, CA 94954
USA

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June 8, 2012
Cardno ERI 2776C.R02

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

SUBJECT **Remediation Status Report, First Quarter 2012**
Former Exxon Service Station 73399
2991 Hopyard Road, Pleasanton, California

Alameda County File No. R0362

INTRODUCTION

At the request of ExxonMobil Environmental Services (EMES), on behalf of Exxon Mobil Corporation, Cardno ERI operated a GWPTS at the subject site during first quarter 2012. Relevant plates, tables, and appendices are included at the end of this report. Currently, a Valero-branded service station and an auto repair shop are operated at the site.

REMEDIAL OPERATIONS

Groundwater Pump and Treat System

A GWPTS was installed in March 2001. Groundwater is pumped through two sediment filter housings and two 1,000-pound GAC vessels prior to being discharged to the sanitary sewer system under permit with the Dublin San Ramon Services District. The GWPTS currently operates using wells MW9A and VR1. Pumping wells OW1 and OW2 were shut down in October 2004.

GWPTS start-up date:	March 2001
GWPTS discharge permit:	Dublin San Ramon Service District Permit No. 10026
GWPTS reporting period:	12/08/11 – 03/14/12
GWPTS modifications during reporting period:	None
GWPTS status during reporting period:	Active
Wells used for extraction:	MW9A and VR1

Australia • Belgium • Canada • Ecuador • Germany • Indonesia • Italy • Kenya •
New Zealand • Papua New Guinea • Peru • Tanzania • United Arab Emirates •
United Kingdom • United States • Operations in 85 countries

June 8, 2012
Cardno ERI 2776C.R02 Former Exxon Service Station 73399, Pleasanton, California

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

Effluent analyses performed: EPA Method 8015B TPHg, TPHd
EPA Method 8260B BTEX, MTBE

Discharge permit non-compliance events and exceptions: None

GWPTS performance:

Period	Volume of Groundwater Treated (gallons)	Mass of TPHg Removed (pounds)	Mass of Benzene Removed (pounds)	Mass of MTBE Removed (pounds)
12/08/11 – 03/14/12	380,900	0.5444	<0.0114	0.6968
To Date:	11,075,610	<11.2593	<0.2210	<12.0214

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 Ms. Rebekah A. Westrup, Cardno ERI's project manager for this site, at rebekah.westrup@cardno.com or at (707) 766-2000 with any questions regarding this report.

Sincerely,

Judy Hutton
SCANNED
IMAGE

Judy Hutton
O&M Administrator
for Cardno ERI
707 766 2000
Email: judy.hutton@cardno.com

David R. Daniels
SCANNED
IMAGE

David R. Daniels
P.G. 8737
for Cardno ERI
707 766 2000
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June 8, 2012

Cardno ERI 2776C.R02 Former Exxon Service Station 73399, Pleasanton, California

Enclosures:

Acronym List

Plate 1 Site Vicinity Map

Table 1 Operation and Performance Data for Groundwater Pump and Treat System

Appendix A Laboratory Analytical Reports and Chain-of-Custody Records

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

Ms. Cherie McCaulou, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California, 94612

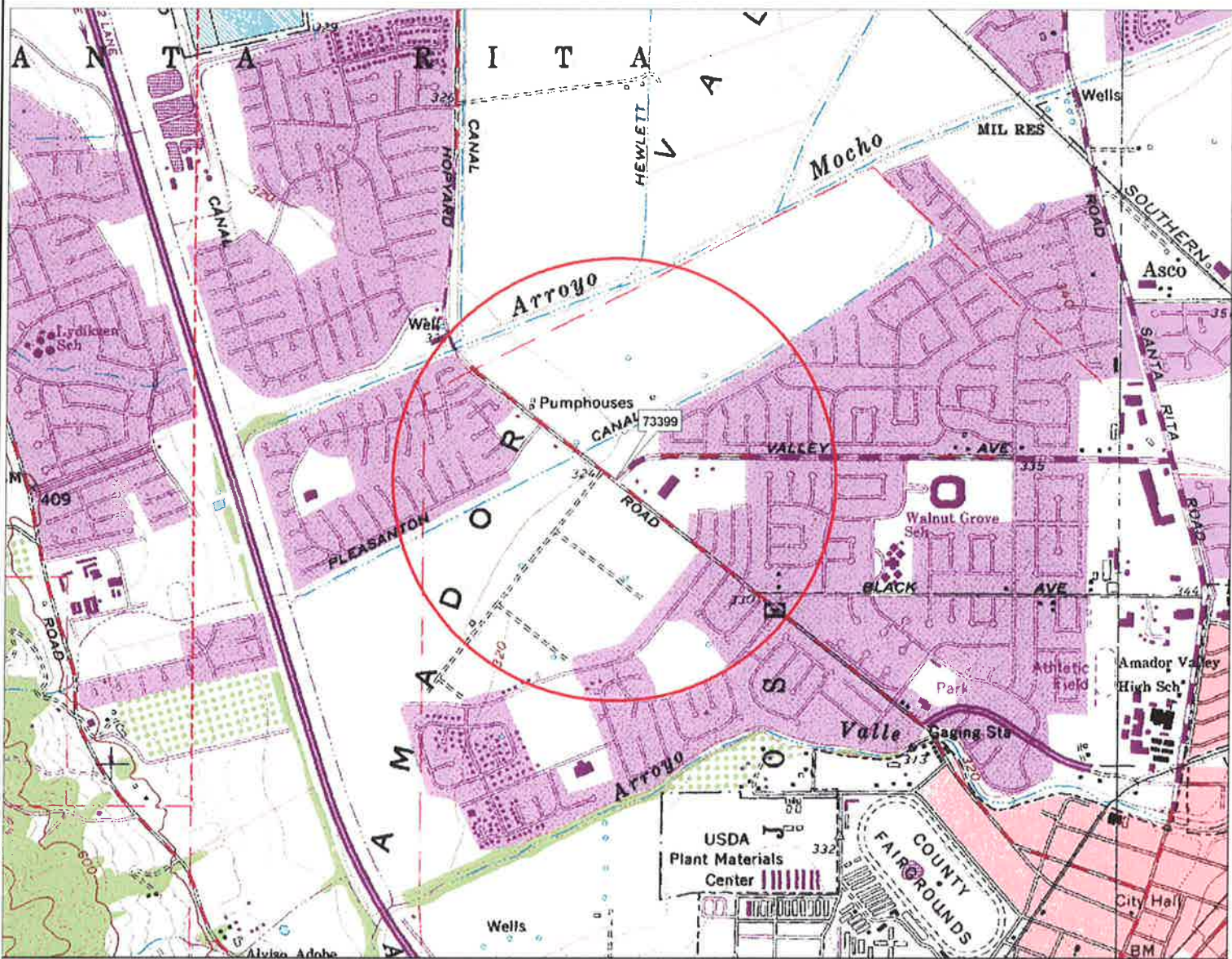
Mr. Matthew Katen, Zone 7 Water Agency, 100 North Canyons Parkway, Livermore, California, 94551

June 8, 2012

Cardno ERI 2776C.R02 Former Exxon Service Station 73399, Pleasanton, California

ACRONYM LIST

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



DeLORME

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FN 2776TOPO

EXPLANATION



1/2-mile radius circle

APPROXIMATE SCALE



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



SITE VICINITY MAP
FORMER EXXON SERVICE STATION 73399
2991 Hopyard Road
Pleasanton, California

PROJECT NO.
2776
PLATE
1

TABLE 1
OPERATION AND PERFORMANCE DATA FOR GROUNDWATER PUMP AND TREAT SYSTEM
Former Exxon Service Station 73399
2991 Hopyard Road
Pleasanton, California
(Page 1 of 2)

Date	Effluent Totalizer Reading (gallons)	Total Totalizer Reading (gallons)	Average Flow Rate (gpm)	Total Flow Per Period (gallons)	Laboratory Analytical Results								Removal Calculations					
					Sample ID	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TPHg		Benzene		MTBE	
													Per Period (pounds)	Cumulative (pounds)	Per Period (pounds)	Cumulative (pounds)	Per Period (pounds)	Cumulative (pounds)
03/17/11	Cumulative totals reported by ETIC Engineering, Inc. 1,933,870 9,728,040 3.6 30,530				Influent	<50	160a	3.7	<2.5	0.28b	0.54b	170	0.0407	<9.1866	0.0009	<0.1767	0.0420	<9.3606
					Intermediate	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
					Effluent	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
03/25/11	Cumulative totals reported by ETIC Engineering, Inc. 1,970,740 9,764,910 3.2 36,870																	
03/28/11	Cumulative totals reported by ETIC Engineering, Inc. 1,989,320 9,783,490 4.3 18,580																	
04/20/11	System running on arrival and departure. 2,113,610 9,907,780 2.5 124,290				W-HT	<50	170a	3.8	<0.50	<0.50	0.56	220	0.2474	<9.4341	0.0056	<0.1823	0.2924	<9.6530
					W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50	<0.50						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
05/02/11	System running on arrival and departure. 2,178,360 9,972,530 3.7 64,750																	
05/16/11	System running on arrival and departure. 2,251,670 10,045,840 3.6 73,310				W-HT	<50	170a	<4.0	<4.0	<4.0	<4.0	230	0.1958	<9.6299	<0.0045	<0.1868	0.2592	<9.9122
					W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50	<0.50						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
06/01/11	System running on arrival and departure. 2,334,320 10,128,490 3.6 82,650																	
06/15/11	System down on arrival and running on departure. 2,376,210 10,170,380 2.1 41,890				W-HT	<50	190a	<5.0	<5.0	<5.0	<5.0	250	0.1870	<9.8169	<0.0047	<0.1915	0.2494	<10.1616
					W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50	0.50						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
06/30/11	System down on arrival and running on departure. 2,426,560 10,220,730 2.3 50,350																	
07/13/11	System running on arrival and departure. 2,472,180 10,266,350 2.4 45,620				W-HT	<50	130a	<4.0	<4.0	<4.0	<4.0	190	0.1281	<9.9450	<0.0036	<0.1951	0.1762	<10.3377
					W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50	3.3						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
07/26/11	System running on arrival and departure. 2,519,190 10,313,360 2.5 47,010																	
08/08/11	System down on arrival and running on departure. 2,550,540 10,344,710 1.7 31,350				W-HT	<50	220a	<4.0	<4.0	<4.0	<4.0	280	0.1144	<10.0594	<0.0026	<0.1977	0.1536	<10.4914
					W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50	3.8						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
08/22/11	System running on arrival and departure. 2,601,380 10,395,550 2.5 50,840																	
09/06/11	System running on arrival and departure. 2,651,970 10,446,140 2.3 50,590				W-HT	<50	130a	<4.0	<4.0	<4.0	<4.0	180	0.1481	<10.2075	<0.0034	<0.2011	0.1946	<10.6860
					W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50	6.2						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
09/19/11	System running on arrival and running on departure. 2,710,850 10,505,020 3.1 58,880																	
09/29/11	System running on arrival and running on departure. 2,746,260 10,540,430 0.0 35,410																	
10/12/11	System down on arrival and running on departure. 2,766,440 10,560,610 1.1 20,180				W-HT	<50	300a,c	3.1	<5.0	<5.0	<5.0	390	0.2053	<10.4129	<0.0034	<0.2045	0.2722	<10.9582
					W-OUT-WC1	—	—	<0.50	<1.0	<1.0	<1.0	7.1						
					W-DSCHG	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0						
10/26/11	System running on arrival and departure. 2,817,100 10,611,270 2.5 50,660																	
11/07/11	System shut down for carbon changeout.																	
11/09/11	System down on arrival and running on departure. 2,829,380 10,623,550 0.6 12,280																	
11/15/11	System down on arrival and running on departure. 2,829,610 10,623,780 0.0 230																	
11/22/11	System down on arrival and running on departure. 2,834,150 10,628,320 0.5 4,540				W-HT	<50	360a	<5.0	<5.0	<5.0	<5.0	400	0.1864	<10.5993	<0.0023	<0.2068	0.2231	<11.1814
					W-OUT-WC1	—	—	c	c	c	c	c						
					W-DSCHG	<50	c	c	c	c	c	c						

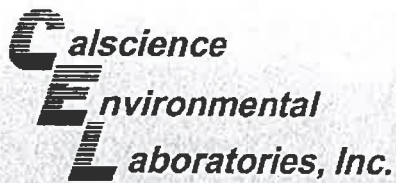
TABLE 1
OPERATION AND PERFORMANCE DATA FOR GROUNDWATER PUMP AND TREAT SYSTEM
Former Exxon Service Station 73399
2991 Hopyard Road
Pleasanton, California
(Page 2 of 2)

Date	Effluent Totalizer Reading (gallons)	Total Totalizer Reading (gallons)	Average Flow Rate (gpm)	Total Flow Per Period (gallons)	Laboratory Analytical Results								Removal Calculations					
					Sample ID	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TPHg		Benzene		MTBE	
													Per Period (pounds)	Cumulative (pounds)	Per Period (pounds)	Cumulative (pounds)	Per Period (pounds)	Cumulative (pounds)
11/30/11	System running on arrival and departure. 2,866,430 10,660,600 2.8 32,280				W-INF	—	160a	5.6	<5.0	<5.0	<5.0	220	0.0700	<10.6693	<0.0014	<0.2082	0.0835	<11.2648
	W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50	<0.50										
	W-DSCHG	—	<50	<0.50	<0.50	<0.50	<0.50	<0.50										
12/08/11	System running on arrival and departure. 2,900,540 10,694,710 3.0 34,110				W-INF	<50	160a	<4.0	<4.0	<4.0	200	0.0455	<10.7149	<0.0014	<0.2096	0.0598	<11.3246	
	W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50	<0.50										
	W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50										
01/04/12	System running on arrival and departure. 3,013,770 10,807,940 2.9 113,230				W-INF	<50	200a	<4.0	<4.0	<4.0	240	0.2585	<10.9733	<0.0057	<0.2153	0.3159	<11.6405	
01/18/12	System running on arrival and departure. 3,072,650 10,866,820 2.9 58,880				W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50							5.2
	W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50									
02/06/12	System down on arrival and running on departure. 3,082,210 10,876,380 0.3 9,560				W-INF	<50	150a	<4.0	<4.0	<4.0	190	0.0840	<11.0573	<0.0019	<0.2172	0.1031	<11.7437	
02/15/12	System running on arrival and departure. 3,130,150 10,924,320 3.7 47,940				W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50							0.73
	W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50									
02/28/12	System running on arrival and departure. 3,200,270 10,994,440 3.7 70,120				W-INF	<50	170a	<2.0	<2.0	<2.0	250	0.2020	<11.2592	<0.0038	<0.2210	0.2777	<12.0214	
03/14/12	System running on arrival and departure. 3,281,440 11,075,610 3.8 81,170				W-OUT-WC1	—	—	<0.50	<0.50	<0.50	<0.50							19
	W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50									

- Notes: If value is below laboratory detection limit, then detection limit is used for removal calculations.
- W-INF-HT = Water influent.
 - W-OUT-WC1 = Water intermediate after first carbon vessel.
 - W-DSCHG = Water effluent.
 - TPHg = Total petroleum hydrocarbons as gasoline analyzed using modified EPA Method 8015B.
 - TPHd = Total petroleum hydrocarbons as diesel analyzed using modified EPA Method 8015B.
 - BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
 - MTBE = Methyl tertiary butyl ether analyzed using EPA Method 8260B.
 - gpm = Gallons per minute.
 - µg/L = Micrograms per liter.
 - < = Less than the stated laboratory reporting limit.
 - = Not sampled/Not analyzed/Not measured/Not calculated/Not applicable.
 - a = Does not match the typical chromatographic pattern.
 - b = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
 - c = Sample container contained headspace greater than 6 millimeters in diameter.

APPENDIX A

**LABORATORY ANALYTICAL REPORTS
AND CHAIN-OF-CUSTODY RECORDS**



CALSCIENCE

WORK ORDER NUMBER: 12-01-1202

The difference is service



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Analytical Report For

Client: Cardno ERI

Client Project Name: ExxonMobil 73399/022776C

Attention: Paula Sime
601 North McDowell Blvd.
Petaluma, CA 94954-2312

BY: _____

Cecile de Guia

Approved for release on 02/2/2012 by:
Cecile deGuia
Project Manager

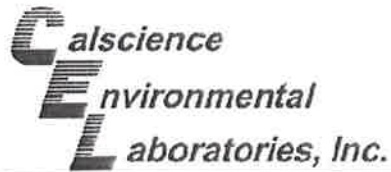
ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories 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 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.





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Work Order Number: 12-01-1202

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2.2	LCS/LCSD	8
3	Glossary of Terms and Qualifiers	11
4	Chain of Custody/Sample Receipt Form	12

Analytical Report



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

Date Received: 01/20/12
 Work Order No: 12-01-1202
 Preparation: EPA 3510C
 Method: EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-DSCHG	12-01-1202-1-A	01/18/12 12:30	Aqueous	GC 45	01/20/12	01/21/12 02:07	120120B05

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
TPH as Diesel	ND	50	1	SG,U	ug/L

<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>
Decachlorobiphenyl	85	68-140	

W-HT	12-01-1202-3-A	01/18/12 13:00	Aqueous	GC 45	01/20/12	01/21/12 02:21	120120B05
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
TPH as Diesel	ND	50	1	SG,U	ug/L

<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>
Decachlorobiphenyl	86	68-140	

Method Blank	099-12-330-2,125	N/A	Aqueous	GC 45	01/20/12	01/20/12 18:59	120120B05
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
TPH as Diesel	ND	50	1	U	ug/L

<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>
Decachlorobiphenyl	87	68-140	

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

Return to Contents

Analytical Report



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

Date Received: 01/20/12
Work Order No: 12-01-1202
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-DSCHG	12-01-1202-1-E	01/18/12 12:30	Aqueous	GC 1	01/24/12	01/24/12 12:54	120124B01

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	79	38-134	

W-HT	12-01-1202-3-E	01/18/12 13:00	Aqueous	GC 1	01/24/12	01/24/12 13:26	120124B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	200	50	1	HD	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	78	38-134	

Method Blank	099-12-436-7,043	N/A	Aqueous	GC 1	01/24/12	01/24/12 05:52	120124B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	72	38-134	

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

Analytical Report



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

Date Received: 01/20/12
Work Order No: 12-01-1202
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 73399/022776C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-DSCHG	12-01-1202-1-C	01/18/12 12:30	Aqueous	GC/MS BB	01/23/12	01/24/12 05:59	120123L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U
Ethylbenzene	ND	0.50	1	U					
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	93	68-120			Dibromofluoromethane	93	80-127		
1,2-Dichloroethane-d4	95	80-128			Toluene-d8	98	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-OUT-WC1	12-01-1202-2-C	01/18/12 12:45	Aqueous	GC/MS BB	01/23/12	01/24/12 06:28	120123L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl Ether (MTBE)	5.2	0.50	1	
Ethylbenzene	ND	0.50	1	U					
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	94	68-120			Dibromofluoromethane	95	80-127		
1,2-Dichloroethane-d4	96	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-HT	12-01-1202-3-C	01/18/12 13:00	Aqueous	GC/MS BB	01/23/12	01/24/12 06:57	120123L02

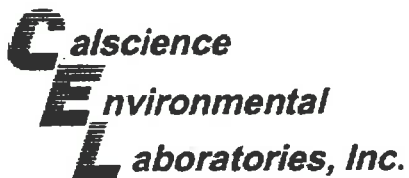
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	4.0	8	U	Xylenes (total)	ND	4.0	8	U
Toluene	ND	4.0	8	U	Methyl-t-Butyl Ether (MTBE)	240	4.0	8	
Ethylbenzene	ND	4.0	8	U					
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	93	68-120			Dibromofluoromethane	95	80-127		
1,2-Dichloroethane-d4	96	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
Method Blank	099-12-880-806	N/A	Aqueous	GC/MS BB	01/23/12	01/24/12 03:03	120123L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U
Ethylbenzene	ND	0.50	1	U					
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	94	68-120			Dibromofluoromethane	93	80-127		
1,2-Dichloroethane-d4	90	80-128			Toluene-d8	103	80-120		

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

Return to Contents



Quality Control - Spike/Spike Duplicate



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

Date Received: 01/20/12
Work Order No: 12-01-1202
Preparation: EPA 5030C
Method: EPA 8015B (M)

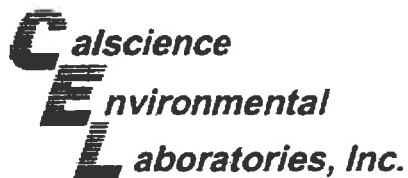
Project ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1196-24	Aqueous	GC 1	01/24/12	01/24/12	120124S01

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	98	98	68-122	1	0-18	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents



Quality Control - Spike/Spike Duplicate



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

Date Received: 01/20/12
Work Order No: 12-01-1202
Preparation: EPA 5030C
Method: EPA 8260B

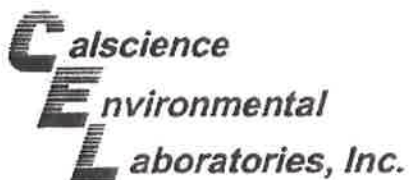
Project ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1175-1	Aqueous	GC/MS BB	01/23/12	01/23/12	120123S01

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	20.00	96	108	76-124	13	0-20	
Toluene	20.00	107	101	80-120	6	0-20	
Ethylbenzene	20.00	87	100	78-126	14	0-20	
Methyl-t-Butyl Ether (MTBE)	20.00	85	132	67-121	14	0-49	HX
Tert-Butyl Alcohol (TBA)	100.0	129	137	36-162	5	0-30	
Diisopropyl Ether (DIPE)	20.00	100	92	60-138	9	0-45	
Ethyl-t-Butyl Ether (ETBE)	20.00	92	99	69-123	8	0-30	
Tert-Amyl-Methyl Ether (TAME)	20.00	97	112	65-120	14	0-20	
Ethanol	200.0	120	109	30-180	10	0-72	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 12-01-1202
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-330-2,125	Aqueous	GC 45	01/20/12	01/20/12	120120B05

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	79	81	75-117	3	0-13	

RPD - Relative Percent Difference , CL - Control Limit

Calscience
Environmental Laboratories, Inc. Quality Control - Laboratory Control Sample



Cardno ERI	Date Received:	N/A
601 North McDowell Blvd.	Work Order No:	12-01-1202
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)

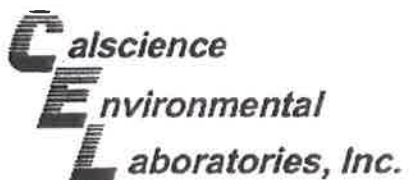
Project: ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-12-436-7,043	Aqueous	GC 1	01/24/12	12012338	120124B01

<u>Parameter</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
TPH as Gasoline	2000	1985	99	78-120	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 12-01-1202
Preparation: EPA 5030C
Method: EPA 8260B

Project: ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-880-806	Aqueous	GC/MS BB	01/23/12	01/24/12	120123L02

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	103	99	80-120	3	0-20	
Toluene	10.00	111	108	80-120	3	0-20	
Ethylbenzene	10.00	108	106	80-120	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	103	106	69-123	3	0-20	
Tert-Butyl Alcohol (TBA)	50.00	101	107	63-123	5	0-20	
Diisopropyl Ether (DIPE)	10.00	116	114	59-137	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	108	108	69-123	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	99	98	70-120	1	0-20	
Ethanol	100.0	122	129	28-160	5	0-57	

RPD - Relative Percent Difference, CL - Control Limit

Work Order Number: 12-01-1202

<u>Qualifier</u>	<u>Definition</u>
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to 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



	< WebShip > > > > 800-322-5555 www.gso.com		1202
	Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520	Tracking #: 518276574 	NPS
Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841	ORC		A
	GARDEN GROVE		
COD: \$0.00	D92841A		
Reference: CARDNO ERI	 97882168		
Delivery Instructions:			
Signature Type: SIGNATURE REQUIRED			Print Date : 01/19/12 15:39 PM

Package 1 of 1

Send Label To Printer	<input checked="" type="checkbox"/> Print All	Edit Shipment	Finish
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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.

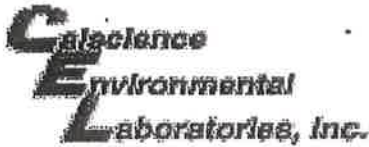
ADDITIONAL OPTIONS:

Send Label Via Email	Create Return Label
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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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WORK ORDER #: 12-01-1202

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Cardno ERI

DATE: 01/20/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.3 °C - 0.3 °C (CF) = 1.0 °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: DL

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Initial: DL

Sample _____ No (Not Intact) Not Present Initial: SH

SAMPLE CONDITION:

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

CONTAINER TYPE:

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

Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 1PBna 500PB

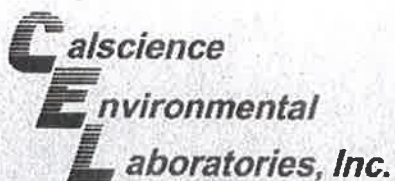
250PB 250PBn 125PB 125PBzanna 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Summa® Other: _____ Trip Blank Lot#: _____ Labeled/Checked by: SH

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

Preservative: h: HCL n: HNO₃ na₂:Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure zanna: ZnAc₂+NaOH f: Filtered Scanned by: YU

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CALSCIENCE

WORK ORDER NUMBER: 12-02-1104

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno ERI

Client Project Name: ExxonMobil 73399/022776C

Attention: Paula Sime
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Cecile de Guia

Approved for release on 02/29/2012 by:
Cecile deGuia
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories 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 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.



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Client Project Name: ExxonMobil 73399/022776C

Work Order Number: 12-02-1104

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Analytical Report



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

Date Received: 02/17/12
 Work Order No: 12-02-1104
 Preparation: EPA 3510C
 Method: EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-DSCHG	12-02-1104-1-E	02/15/12 12:30	Aqueous	GC 47	02/20/12	02/20/12 23:53	120220B09S

Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	50	1	SG,U	ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	97	68-140			

W-HT	12-02-1104-3-E	02/15/12 13:00	Aqueous	GC 47	02/20/12	02/21/12 00:08	120220B09S
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	50	1	SG,U	ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	96	68-140			

Method Blank	099-12-330-2,150	N/A	Aqueous	GC 47	02/20/12	02/20/12 17:29	120220B09S
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	50	1	U	ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	119	68-140			

Return to Contents

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

Analytical Report



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

Date Received: 02/17/12
Work Order No: 12-02-1104
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-DSCHG	12-02-1104-1-C	02/15/12 12:30	Aqueous	GC 56	02/17/12	02/17/12 15:45	120217B01

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	38-134	

W-HT	12-02-1104-3-C	02/15/12 13:00	Aqueous	GC 56	02/17/12	02/17/12 17:20	120217B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	150	50	1	HD	ug/L

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

Method Blank	099-12-436-7,148	N/A	Aqueous	GC 56	02/17/12	02/17/12 11:13	120217B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	38-134	

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

Return in Container

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

Date Received: 02/17/12
Work Order No: 12-02-1104
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 73399/022776C

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-DSCHG	12-02-1104-1-A	02/15/12 12:30	Aqueous	GC/MS L	02/21/12	02/21/12 18:34	120221L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U
Ethylbenzene	ND	0.50	1	U					
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	94	68-120			Dibromofluoromethane	84	80-127		
1,2-Dichloroethane-d4	93	80-128			Toluene-d8	98	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-OUT-WC1	12-02-1104-2-A	02/15/12 12:45	Aqueous	GC/MS L	02/21/12	02/22/12 07:23	120221L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl Ether (MTBE)	0.73	0.50	1	
Ethylbenzene	ND	0.50	1	U					
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	93	68-120			Dibromofluoromethane	97	80-127		
1,2-Dichloroethane-d4	98	80-128			Toluene-d8	96	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-HT	12-02-1104-3-A	02/15/12 13:00	Aqueous	GC/MS L	02/21/12	02/22/12 07:51	120221L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	4.0	8	U	Xylenes (total)	ND	4.0	8	U
Toluene	ND	4.0	8	U	Methyl-t-Butyl Ether (MTBE)	190	4.0	8	
Ethylbenzene	ND	4.0	8	U					
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	93	68-120			Dibromofluoromethane	96	80-127		
1,2-Dichloroethane-d4	99	80-128			Toluene-d8	95	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-826	N/A	Aqueous	GC/MS L	02/21/12	02/21/12 14:04	120221L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U
Ethylbenzene	ND	0.50	1	U					
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	94	68-120			Dibromofluoromethane	91	80-127		
1,2-Dichloroethane-d4	91	80-128			Toluene-d8	97	80-120		

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

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

Date Received: 02/17/12
 Work Order No: 12-02-1104
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: ExxonMobil 73399/022776C


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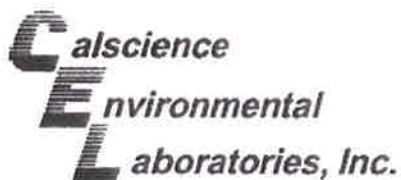
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-828	N/A	Aqueous	GC/MS L	02/21/12	02/22/12 01:26	120221L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U
Ethylbenzene	ND	0.50	1	U					
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	94	68-120			Dibromofluoromethane	92	80-127		
1,2-Dichloroethane-d4	96	80-128			Toluene-d8	97	80-120		

Return to Contents

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





Quality Control - Spike/Spike Duplicate



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

Date Received: 02/17/12
Work Order No: 12-02-1104
Preparation: EPA 5030C
Method: EPA 8015B (M)

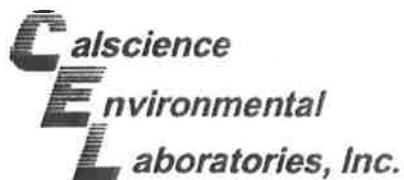
Project ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
W-DSCHG	Aqueous	GC 56	02/17/12	02/17/12	120217S01

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	94	95	68-122	0	0-18	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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

Date Received: 02/17/12
Work Order No: 12-02-1104
Preparation: EPA 5030C
Method: EPA 8260B

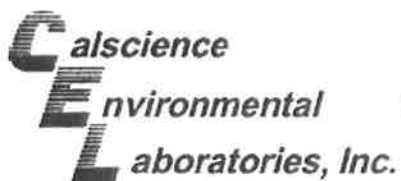
Project ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
W-DSCHG	Aqueous	GC/MS L	02/21/12	02/21/12	120221S01

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	99	99	76-124	0	0-20	
Toluene	10.00	103	102	80-120	1	0-20	
Ethylbenzene	10.00	101	102	78-126	0	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	103	102	67-121	1	0-49	
Tert-Butyl Alcohol (TBA)	50.00	249	133	36-162	60	0-30	HX,BA
Diisopropyl Ether (DIPE)	10.00	96	95	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	98	99	69-123	1	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	102	102	65-120	1	0-20	
Ethanol	100.0	101	88	30-180	14	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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

Date Received: 02/17/12
Work Order No: 12-02-1104
Preparation: EPA 5030C
Method: EPA 8260B

Project ExxonMobil 73399/022776C

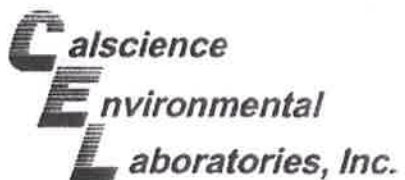
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-02-1156-3	Aqueous	GC/MS L	02/21/12	02/22/12	120221S02

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	94	99	76-124	5	0-20	
Toluene	10.00	97	102	80-120	5	0-20	
Ethylbenzene	10.00	95	100	78-126	5	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	90	98	67-121	8	0-49	
Tert-Butyl Alcohol (TBA)	50.00	163	146	36-162	11	0-30	HX
Diisopropyl Ether (DIPE)	10.00	89	96	60-138	7	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	90	98	69-123	8	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	92	100	65-120	8	0-20	
Ethanol	100.0	108	94	30-180	14	0-72	

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RPD - Relative Percent Difference, CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



Quality Control - LCS/LCS Duplicate



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

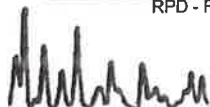
Date Received: N/A
Work Order No: 12-02-1104
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: ExxonMobil 73399/022776C

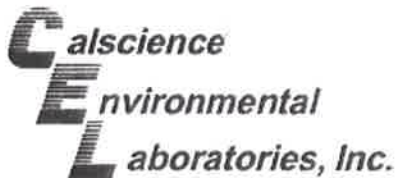
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-330-2,150	Aqueous	GC 47	02/20/12	02/20/12	120220B09S

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	111	114	75-117	2	0-13	

RPD - Relative Percent Difference , CL - Control Limit



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Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 12-02-1104
Preparation: EPA 5030C
Method: EPA 8015B (M)

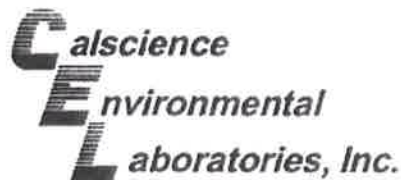
Project: ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-436-7,148	Aqueous	GC 56	02/17/12	02/17/12	120217B01

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	93	94	78-120	1	0-10	

RPD - Relative Percent Difference, CL - Control Limit

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Quality Control - LCS/LCS Duplicate



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

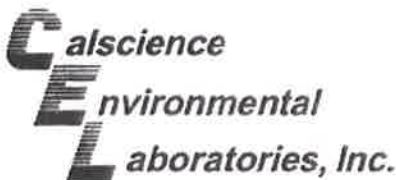
Date Received: N/A
Work Order No: 12-02-1104
Preparation: EPA 5030C
Method: EPA 8260B

Project: ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-880-826	Aqueous	GC/MS L	02/21/12	02/21/12	120221L01

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	99	97	80-120	1	0-20	
Toluene	10.00	100	101	80-120	1	0-20	
Ethylbenzene	10.00	97	101	80-120	4	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	101	101	69-123	0	0-20	
Tert-Butyl Alcohol (TBA)	50.00	96	103	63-123	7	0-20	
Diisopropyl Ether (DIPE)	10.00	95	93	59-137	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	100	99	69-123	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	102	103	70-120	1	0-20	
Ethanol	100.0	95	97	28-160	2	0-57	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 12-02-1104
Preparation: EPA 5030C
Method: EPA 8260B

Project: ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-880-828	Aqueous	GC/MS L	02/21/12	02/22/12	120221L02

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	97	100	80-120	2	0-20	
Toluene	10.00	99	101	80-120	2	0-20	
Ethylbenzene	10.00	99	100	80-120	1	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	105	98	69-123	7	0-20	
Tert-Butyl Alcohol (TBA)	50.00	93	99	63-123	6	0-20	
Diisopropyl Ether (DIPE)	10.00	95	95	59-137	1	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	102	97	69-123	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	104	97	70-120	7	0-20	
Ethanol	100.0	97	94	28-160	4	0-57	

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RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 12-02-1104

<u>Qualifier</u>	<u>Definition</u>
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to 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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1104

		< WebShip > > > > 800-322-5555 www.gso.com	
Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520		Tracking #: 518475436 	NPS
Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841		ORC GARDEN GROVE	
COD: \$0.00		D92841A 	
Reference: CARDNO ERI, CONOCO PHILLIPS		98688321	
Delivery Instructions:		Signature Type: SIGNATURE REQUIRED	
		Print Date : 02/16/12 14:52 PM	

Package 1 of 1

Print All

LABEL INSTRUCTIONS:

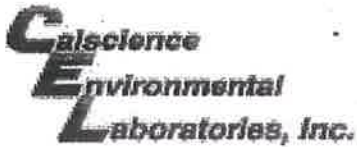
- Do not copy or reprint this label for additional shipments - each package must have a unique barcode.
- STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
- STEP 2 - Fold this page in half.
- STEP 3 - Securely attach this label to 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:

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 are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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WORK ORDER #: 12-02-7704

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CARDNO ERI

DATE: 02/17/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.4 °C - 0.3 °C (CF) = 1.1 °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: RS

CUSTODY SEALS INTACT:

Cooler _____ No. (Not Intact) Not Present N/A Initial: RS

Sample _____ No. (Not Intact) Not Present Initial: b.l

SAMPLE CONDITION:

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

CONTAINER TYPE:

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

Water: VOA VOA⁴h VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 1PBna 500PB

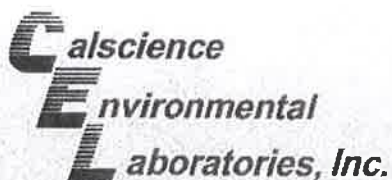
250PB 250PBn 125PB 125PBz₂na 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Summa® Other: _____ Trip Blank Lot#: _____ Labeled/Checked by: b.l

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: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure z₂na: ZnAc₂+NaOH f: Filtered Scanned by: MS

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CALSCIENCE

WORK ORDER NUMBER: 12-03-1329

The difference is service



AIR SOIL WATER MARINE CHEMISTRY

Analytical Report For

Client: Cardno ERI

Client Project Name: ExxonMobil 73399/022776C

Attention: Paula Sime
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Cecile de Guia

Approved for release on 03/30/2012 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.



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Work Order Number: 12-03-1329

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Analytical Report



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

Date Received: 03/20/12
Work Order No: 12-03-1329
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-DSCHG	12-03-1329-1-F	03/14/12 10:00	Aqueous	GC 46	03/21/12	03/23/12 10:26	120321B10

Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	50	1	SG,U	ug/L

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	105	68-140	

W-HT	12-03-1329-3-F	03/14/12 10:30	Aqueous	GC 46	03/21/12	03/23/12 10:41	120321B10
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	50	1	SG,U	ug/L

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	95	68-140	

Method Blank	099-12-330-2,178	N/A	Aqueous	GC 46	03/21/12	03/23/12 02:07	120321B10
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	50	1	U	ug/L

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	101	68-140	

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

Return in Contents

Analytical Report



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

Date Received: 03/20/12
Work Order No: 12-03-1329
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-DSCHG	12-03-1329-1-C	03/14/12 10:00	Aqueous	GC 24	03/20/12	03/20/12 20:06	120320B01

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	82	38-134	

W-HT	12-03-1329-3-C	03/14/12 10:30	Aqueous	GC 24	03/20/12	03/20/12 20:40	120320B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	170	50	1	HD	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	38-134	

Method Blank	099-12-436-7,242	N/A	Aqueous	GC 24	03/20/12	03/20/12 11:43	120320B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	38-134	

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



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

Date Received: 03/20/12
Work Order No: 12-03-1329
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 73399/022776C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-DSCHG	12-03-1329-1-A	03/14/12 10:00	Aqueous	GC/MS L	03/22/12	03/22/12 21:47	120322L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U
Ethylbenzene	ND	0.50	1	U					
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	93	68-120			Dibromofluoromethane	99	80-127		
1,2-Dichloroethane-d4	104	80-128			Toluene-d8	95	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-OUT-WC1	12-03-1329-2-A	03/14/12 10:15	Aqueous	GC/MS L	03/22/12	03/22/12 22:14	120322L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl Ether (MTBE)	19	0.50	1	
Ethylbenzene	ND	0.50	1	U					
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	91	68-120			Dibromofluoromethane	94	80-127		
1,2-Dichloroethane-d4	103	80-128			Toluene-d8	97	80-120		

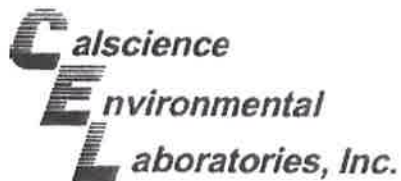
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-HT	12-03-1329-3-A	03/14/12 10:30	Aqueous	GC/MS L	03/22/12	03/22/12 22:42	120322L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.0	4	U	Xylenes (total)	ND	2.0	4	U
Toluene	ND	2.0	4	U	Methyl-t-Butyl Ether (MTBE)	250	5.0	10	
Ethylbenzene	ND	2.0	4	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	105	80-128			Toluene-d8	103	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-849	N/A	Aqueous	GC/MS L	03/22/12	03/22/12 19:02	120322L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	U
Ethylbenzene	ND	0.50	1	U					
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	95	68-120			Dibromofluoromethane	98	80-127		
1,2-Dichloroethane-d4	98	80-128			Toluene-d8	101	80-120		

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



Quality Control - Spike/Spike Duplicate



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

Date Received: 03/20/12
Work Order No: 12-03-1329
Preparation: EPA 5030C
Method: EPA 8015B (M)

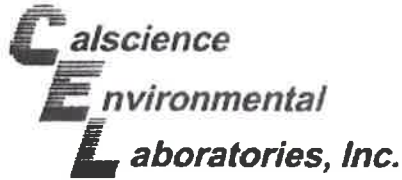
Project ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-03-1235-1	Aqueous	GC 24	03/20/12	03/20/12	120320S01

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	100	102	68-122	2	0-18	

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RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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

Date Received: 03/20/12
Work Order No: 12-03-1329
Preparation: EPA 5030C
Method: EPA 8260B

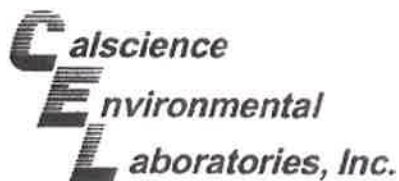
Project ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-03-1156-2	Aqueous	GC/MS L	03/22/12	03/22/12	120322S01

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	115	112	76-124	2	0-20	
Toluene	10.00	114	115	80-120	1	0-20	
Ethylbenzene	10.00	119	115	78-126	3	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	116	112	67-121	4	0-49	
Tert-Butyl Alcohol (TBA)	50.00	123	111	36-162	11	0-30	
Diisopropyl Ether (DIPE)	10.00	111	116	60-138	4	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	115	110	69-123	5	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	114	107	65-120	6	0-20	
Ethanol	100.0	108	106	30-180	2	0-72	

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RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 12-03-1329
Preparation: EPA 3510C
Method: EPA 8015B (M)

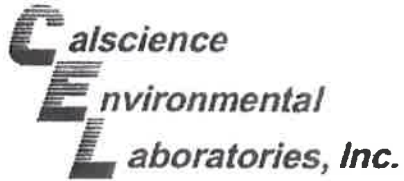
Project: ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-330-2,178	Aqueous	GC 46	03/21/12	03/23/12	120321B10

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	75	77	75-117	3	0-13	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

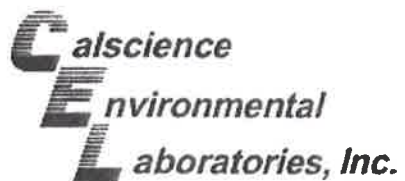
Date Received: N/A
Work Order No: 12-03-1329
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-436-7,242	Aqueous	GC 24	03/20/12	03/20/12	120320B01

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	109	108	78-120	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 12-03-1329
Preparation: EPA 5030C
Method: EPA 8260B

Project: ExxonMobil 73399/022776C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-880-849	Aqueous	GC/MS L	03/22/12	03/22/12	120322L01

<u>Parameter</u>	<u>SPIKE ADDED</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	10.00	100	98	80-120	2	0-20	
Toluene	10.00	99	98	80-120	1	0-20	
Ethylbenzene	10.00	100	100	80-120	1	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	104	101	69-123	3	0-20	
Tert-Butyl Alcohol (TBA)	50.00	104	102	63-123	2	0-20	
Diisopropyl Ether (DIPE)	10.00	102	97	59-137	6	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	104	97	69-123	7	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	101	97	70-120	4	0-20	
Ethanol	100.0	92	102	28-160	11	0-57	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501




Work Order Number: 12-03-1329

<u>Qualifier</u>	<u>Definition</u>
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to 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

1329

		< WebShip > > > > 800-322-5555 www.gso.com	
Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520		Tracking #: 518700095 <input type="text"/>	NPS
Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841		ORC GARDEN GROVE	
COD: \$0.00		D92841A	
Reference: PARSONS, YOLO COUNTY, ERI		<input type="checkbox"/> C1 99586448 <input type="text"/>	
Delivery Instructions:		99586448	
Signature Type: SIGNATURE REQUIRED		Print Date : 03/19/12 16:40 PM	

Package 1 of 1

<input type="button" value="Send Label To Printer"/>	<input checked="" type="checkbox"/> Print All	<input type="button" value="Edit Shipment"/>	<input type="button" value="Finish"/>
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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.

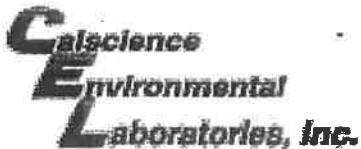
ADDITIONAL OPTIONS:

<input type="button" value="Send Label Via Email"/>	<input type="button" value="Create Return Label"/>
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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 not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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WORK ORDER #: 12-03-1329

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CARPNO ERT

DATE: 03/20/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 2.6 °C - 0.3°C (CF) = 2.3 °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: WBS

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Initial: WBS

Sample _____ No (Not Intact) Not Present Initial: RS

SAMPLE CONDITION:

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

CONTAINER TYPE:

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

Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 1PBna 500PB

250PB 250PBn 125PB 125PBzanna 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Summa® Other: _____ Trip Blank Lot#: _____ Labeled/Checked by: RS

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

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure zanna: ZnAc₂+NaOH f: Filtered Scanned by: JK

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