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Jennifer C. Sedlachek
Project Manager

ExxonMobil

July 26, 2012

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

RECEIVED

2:18 pm, Aug 01, 2012

Alameda County
Environmental Health

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

Dear Ms. Jakub:

Attached for your review and comment is a copy of the letter report entitled *Assessment Report*, dated July 26, 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 *Assessment Report*, dated July 26, 2012

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

w/o attachment
Paula Sime, Cardno ERI



July 26, 2012

Cardno ERI 2783C.R01

Ms. Jennifer C. Sedlachek
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SUBJECT Assessment Report
Former Mobil Service Station 99105
6301 San Pablo Boulevard
Oakland, California

Ms. Sedlachek:

At the request of ExxonMobil Environmental Services, on behalf of ExxonMobil Oil Corporation (ExxonMobil), Cardno ERI prepared this assessment report for the subject site. The purpose of this work was to further investigate the condition of soil, groundwater, and soil vapor west of the subject site as well as collect additional soil vapor samples on site. The work consisted of advancing and sampling off-site soil borings B6 through B8; installing, purging, and sampling off-site soil vapor sampling (SVS) wells SVS1 through SVS3; and sampling on-site soil vapor wells VW1 through VW5. Cardno ERI performed the field work in accordance with the *Work Plan for Soil Borings and Soil Vapor Assessment* (Work Plan), dated September 16, 2011 (ERI, 2011). The Work Plan was approved by the Alameda County Health Care Services Agency, Environmental Health Services (the County) in a letter dated November 14, 2011 (Appendix A). Due to off-site access negotiation, Cardno ERI was granted report extensions by the County via electronic correspondence (Appendix A).

SITE DESCRIPTION

The site is located at 6301 San Pablo Avenue, Oakland, California, on the northwestern corner of San Pablo Avenue and 63rd Street (Plate 1). The site was operated as a Mobil service station from 1951 to 1980, then used as a rental car lot, and is currently an automobile oil change facility. Four 2,000-gallon gasoline USTs and one 350-gallon used-oil UST were present on the property and not used after 1980. The USTs were removed

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in 1994. Properties in the vicinity of the site are occupied by mixed use residential and commercial properties. An elementary school is located across San Pablo Avenue to the east and residential properties are located to the west and south of the site (Plate 2). The Saint Paul Primitive Baptist Church is located adjacent to the site to the west.

GEOLOGY AND HYDROGEOLOGY

The subject site is located in the East Bay Subbasin of the Santa Clara Valley Groundwater Basin. A northwest trending alluvial plain, the Easy Bay Subbasin is bounded on the north by San Pablo Bay, on the east by the Franciscan Basement rock contact, and by the Niles Cone Groundwater Basin to the south. The East Bay Plain Subbasin aquifer system consists of unconsolidated deposits, Quaternary in age and with a cumulative thickness of approximately 1,000 feet. These deposits include the early Pleistocene Santa Clara Formation, the late Pleistocene Alameda Formation, the early Holocene Temescal Formation, and artificial fill (ETIC, 2011a).

DTW at the subject site has ranged from approximately 3 to 12.5 feet bgs during the groundwater monitoring program. The direction of groundwater flow, according to the most recent groundwater monitoring report, is northwest (Cardno ERI, 2012). Historically, the direction of groundwater flow has varied from the northwest to the southwest (ETIC, 2011a). The groundwater elevation map for the most recent monitoring and sampling event is presented as Plate 3.

PREVIOUS WORK

Groundwater Monitoring Activities

Cumulative groundwater monitoring and sampling data is included in Tables 1A and 1B. Well construction details are included in Table 2. Cumulative soil sampling data is included in Table 3. Cumulative soil vapor analytical results are included in Tables 4A and 4B.

Site Assessment Activities

Site assessment activities have included the installation of groundwater monitoring wells MW1 through MW5 and soil vapor sampling wells VW1 through VW5, and the drilling of soil borings AB-1 through AB-13, B1 through B5, MP-1 through MP-6, and HA-1 (ETIC, 2011a). Wells MW1 and MW4 have been destroyed (ETIC, 2011a).

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Remediation Activities

In 1994, one 350-gallon used oil UST and four 2,000-gallon gasoline USTs were removed from the site. Holes were observed in two of the 2,000-gallon gasoline tanks. Analytical results from soil samples collected from the bottom of the gasoline tank excavation area (11 feet bgs), indicated maximum concentrations of 520 mg/kg of TPHg and 0.18 mg/kg of benzene. During UST excavation, liquid-phase hydrocarbons were observed in groundwater.

In February 1996, standing water in the UST excavation was pumped out of the excavation area. Soil samples were collected from the bottom of the gasoline tank excavation area. Additionally, two 2-inch diameter steel and three 2-inch diameter fiberglass fuel pipelines were removed from the site. Signs of rust were observed in the steel piping at the stub-ups near the northwest end of the former dispenser island. Holes were not observed in the pipes. The excavation was approximately 3 feet deep by 3 feet wide and 50 feet long, extending from the southeastern corner of the gasoline tank excavation to the dispenser islands. Hydrocarbons were observed in soil near the northwestern end of the former dispenser island. An area approximately 16 feet long by 11 feet wide and 5 feet deep was over excavated to remove the soil. Soil samples were collected every 20 feet from beneath the former product line. An estimated total of 367 cubic yards of soil were excavated from the site during the UST and product line removals (ETIC, 2011a).

During redevelopment activities conducted by the property owner in early 1999, more than 200 cubic yards of soil were removed from the northeastern side of the site (ETIC, 2011a).

A DPE event was conducted in November 1998. Monitoring wells MW3 and MW4 were used as extraction wells. Six temporary monitoring points (MP-1 through MP-6) were installed to monitor vacuum readings and groundwater depths during the DPE event. Approximately 75 gallons of groundwater were generated and 21 pounds of vapor-phase hydrocarbons were removed. Monitoring points MP-1 through MP-6 were destroyed following the DPE event (TRC, 2000).

SUBSURFACE INVESTIGATION

Cardno ERI performed the field work in accordance with the *Work Plan for Soil Vapor Assessment*, dated September 16, 2011 (Cardno ERI, 2011), Cardno ERI's standard field protocol (Appendix B), and a site-specific health and safety plan.

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Pre-Field Work

Prior to initiating field activities, Cardno ERI obtained access for the off-site locations (Appendix C). In addition, Cardno ERI obtained well installation permits from the County (Appendix D). Prior to drilling, Cardno ERI notified Underground Service Alert (USA) and contracted a private utility-locating company to locate underground utilities at the site.

Soil Borings

On June 18, 2012, Cardno ERI observed Woodward advance soil borings B6 through B8 to depths of 9.5 to 15 feet bgs using a hand auger.

Grab groundwater samples were collected from each boring. Following collection of groundwater samples, borings were tremie grouted and sealed. Groundwater samples were preserved for laboratory analysis. Select groundwater analytical results are presented in Tables 1A and 1B and on Plate 4.

Soil Vapor Sampling Well Installation

Between June 18 and 19, 2012, Cardno ERI observed Woodward Drilling (Woodward), of Rio Vista, California, advance soil borings for SVS wells SVS1 through SVS3 to 5.5 feet bgs using hand tools. The borings were advanced using a 3.25-inch diameter hand auger. SVS well locations are shown on Plate 2.

Select soil samples were preserved for laboratory analysis. Soil sample collection and standard COC procedures were followed and are described in the standard field protocol (Appendix B). Cumulative soil analytical results are summarized on Table 3. Select soil analytical results are summarized on Plate 5.

On June 19, 2012, Cardno ERI observed Woodward install SVS wells SVS1 through SVS3. The wells were constructed as 0.25-inch stainless steel wells with 1-inch diameter; 0.010-inch slotted PVC screens installed from 4.75 to 5 feet bgs. Well construction details are included on the boring logs in Appendix E and in Table 2.

Purging and Sampling Soil Vapor Sampling Wells

Based on the results of the *Soil Vapor Survey Report* (ETIC, 2011b), a three volume purge was selected for the sample collection event. On June 25 and 26, 2012, Cardno ERI purged and collected soil vapor samples from wells SVS1 through SVS3, VW1, VW2, VW4, and VW5 in accordance with the attached field protocol (Appendix B). A duplicate sample was obtained from well VW4. Perched groundwater was present in well VW3

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which prevented vapor sample collection. Soil vapor analytical results are presented in Tables 4A and 4B. Select soil vapor analytical results are illustrated on Plate 6.

A summary of sampling times, Summa™ canister vacuum readings, and average flow rate data during sample collection are presented on the field notes in Appendix F. A soil vapor purging and sampling equipment diagram is presented as Plate 7.

Laboratory Analytical Methods – Soil Samples and Grab Groundwater Samples

Cardno ERI collected and submitted soil samples and grab groundwater samples for analysis to Calscience Environmental Laboratories, Inc. (Calscience), of Garden Grove, California, a California state-certified laboratory, under COC protocol. The soil and grab groundwater samples were analyzed for:

- TPHg and TPHd by EPA Method 8015B.
- BTEX, MTBE, and fuel oxygenates (ETBE, TAME, TBA, and DIPE), by EPA Method 8260B.

Laboratory analytical reports and COC records are provided in Appendix G. Groundwater sample analytical data are presented in Tables 1A and 1B. Select groundwater analytical results are shown on Plate 4. Soil sample analytical data results are presented in Tables 3. Select soil analytical results are shown on Plate 5.

Laboratory Analytical Methods – Soil Vapor Samples

Cardno ERI collected and submitted soil vapor samples for analysis to Calscience, a California state-certified laboratory, under COC protocol. The soil vapor samples for SVS1 through SVS3 and VW1 through VW5 were analyzed for:

- TPHg using EPA Method TO-3M.
- Full-scan VOCs, including BTEX, fuel oxygenates, lead scavengers, naphthalene, and additional VOCs using EPA Method TO-15.
- Oxygen + Argon, carbon dioxide, helium, and methane using ASTM Method D-1946M.

The laboratory analytical report and COC record are provided in Appendix G. Select soil vapor analytical results are presented in Tables 4A and 4B and are shown on Plate 6.

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Site Survey

On June 25, 2012, Cardno ERI observed Morrow Surveying (Morrow), of West Sacramento, California, survey the locations and elevations of borings B6 through B8 and wells SVS1 through SVS3. The survey report is included in Appendix H.

Waste Containment and Disposal

Soil generated during assessment activities was contained in 55-gallon drums on site. Soil is pending characterization for disposal. Disposal documentation will be submitted under separate cover.

RESULTS OF INVESTIGATION

Site Geology and Hydrogeology

Sediments encountered during assessment activities indicate the presence of sandy clays and clayey sands between the surface and approximately 15 feet bgs in borings B6 through B8 and wells SVS1 through SVS3. The maximum depth explored in borings B6 through B8 was 15 feet bgs. Free groundwater was encountered during the advancement of borings B7 and B8, at approximately 12.5 feet bgs and 8.5 feet bgs, respectively. Groundwater was not encountered in boring B6 during drilling activities; however, groundwater entered the borehole overnight and was static at a depth of 10.6 feet bgs the following day. Boring logs are included in Appendix E.

Petroleum Hydrocarbons in Groundwater

With the exception of TPHd concentrations in boring B8, constituents of concern were below reporting limits in the grab groundwater samples collected from borings B6 through B8. Dissolved-phase TPHd was reported in the groundwater sample from B8 at 230 µg/L; however, the result was footnoted by the laboratory as being inconsistent with the TPHd standard chromatogram. Cumulative analytical results for petroleum hydrocarbons in groundwater are summarized on Tables 1A and 1B. Select analytical results for hydrocarbons in groundwater are presented on Plate 4.

Petroleum Hydrocarbons in Soil

Constituents of concern were below laboratory reporting limits for the soil samples collected from borings SVS1 through SVS3. In addition, PID readings were zero for all field screened soil samples in borings B6 through B8

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and SVS1 through SVS3. Cumulative analytical results for petroleum hydrocarbons in soil are summarized on Table 3. Select analytical results for hydrocarbons in soil are presented on Plate 5.

Petroleum Hydrocarbons in Soil Vapor

During the June 25 and 26, 2012, soil vapor sample collection event, concentrations of TPHg, BTEX, MTBE, 1,2-DCA, EDB, TBA, DIPE, ETBE, and TAME were reported in soil vapor samples. Concentrations exceeded residential ESLs established by the California Regional Water Quality Control Board, San Francisco Bay Region (CRWQCB, 2008), in the four on-site vapor wells sampled with maximum concentrations of TPHg and benzene at 220,000,000 $\mu\text{g}/\text{m}^3$ and 30,000 $\mu\text{g}/\text{m}^3$ in well VW4 (near the former dispenser island), respectively. Concentrations of vapor-phase hydrocarbons were below residential ESLs in samples collected from off-site soil vapor wells SVS1 through SVS3. Select reporting limits for ethylbenzene, o-xylene, pm-xylene, 1,2-DCA, and EDB exceeded ESLs.

Cumulative analytical results for petroleum hydrocarbons in soil vapor are summarized on Tables 4A and 4B. Select analytical results for soil vapor hydrocarbons are shown on Plate 6.

CONCLUSIONS

Based on the results of the site assessment conducted at the site, Cardno ERI concludes that petroleum hydrocarbons are present in soil, groundwater, and soil vapor are adequately delineated and limited to the site and that additional off-site assessment is not warranted.

Maximum vapor-phase constituent concentrations were reported in wells VW4 and VW5, located near and downgradient from the former dispenser islands and piping. Vapor-phase concentrations that exceed applicable ESLs are limited to wells VW4 and VW5.

Dissolved-phase hydrocarbon concentrations were below reporting limits in borings B6 through B8, with the exception of TPHd reported at 230 $\mu\text{g}/\text{L}$ in boring B8. Residual hydrocarbon concentrations in soil were below reporting limits in the off-site borings.

RECOMMENDATIONS

Based on the results of this site assessment and cumulative site data, Cardno ERI recommends performing additional site assessment near the former dispenser islands and destroyed well MW4 and evaluating remedial alternatives for the site.

July 26, 2012
 Cardno ERI 2783C.R01 Former Mobil Service Station 99105, Oakland, California

CONTACT INFORMATION

The responsible party contact is Ms. Jennifer C. Sedlachek, ExxonMobil Environmental Services, 4096 Piedmont Avenue #194, Oakland, California, 94611. The consultant contact is Ms. Rebekah A. Westrup, Cardno ERI, 601 North McDowell Boulevard, Petaluma, California, 94954. The agency contact is Barbara J. Jakub, P.G., Alameda County Health Care Services Agency, Environmental Health Services, Environmental Protection, 1131 Harbor Bay Parkway, Suite 250, Alameda, California, 94502.

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 site.

Sincerely,


 SCANNED
 IMAGE

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cc: Barbara J. Jakub, Alameda County Health Care Services Agency, Environmental Health Services,
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Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa, Ste. 3341, Oakland, California 94612

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

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Enclosures:

References

Acronym List

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Plate 4	Select Groundwater Analytical Results
Plate 5	Select Soil Analytical Results
Plate 6	Select Soil Vapor Analytical Results
Plate 7	Soil Vapor Purging and Sampling Equipment Diagram
Table 1A	Cumulative Groundwater Monitoring and Sampling Results
Table 1B	Additional Cumulative Groundwater Monitoring and Sampling Results
Table 2	Well Construction Details
Table 3	Cumulative Soil Sample Analytical Data
Table 4A	Cumulative Soil Vapor Analytical Data
Table 4B	Additional Cumulative Soil Vapor Analytical Data
Appendix A	Correspondence
Appendix B	Field Protocol
Appendix C	Access Agreement
Appendix D	Permits
Appendix E	Boring Logs
Appendix F	Soil Vapor Field Data Forms
Appendix G	Laboratory Analytical Reports and Chain of Custody Records
Appendix H	Survey Report

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REFERENCES

California Regional Water Quality Control Board, San Francisco Bay Region (CRWQCB-SFB). May 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (Interim Final – May 2008).

Cardno ERI. September 16, 2011. *Work Plan for Soil Borings and Soil Vapor Assessment, Former Mobil Station 99105, 6301 San Pablo Avenue, Oakland, California.*

Cardno ERI. February 29, 2012. *Groundwater Monitoring Report, First Quarter 2012, Former Mobil Station 99105, 6301 San Pablo Avenue, Oakland, California.*

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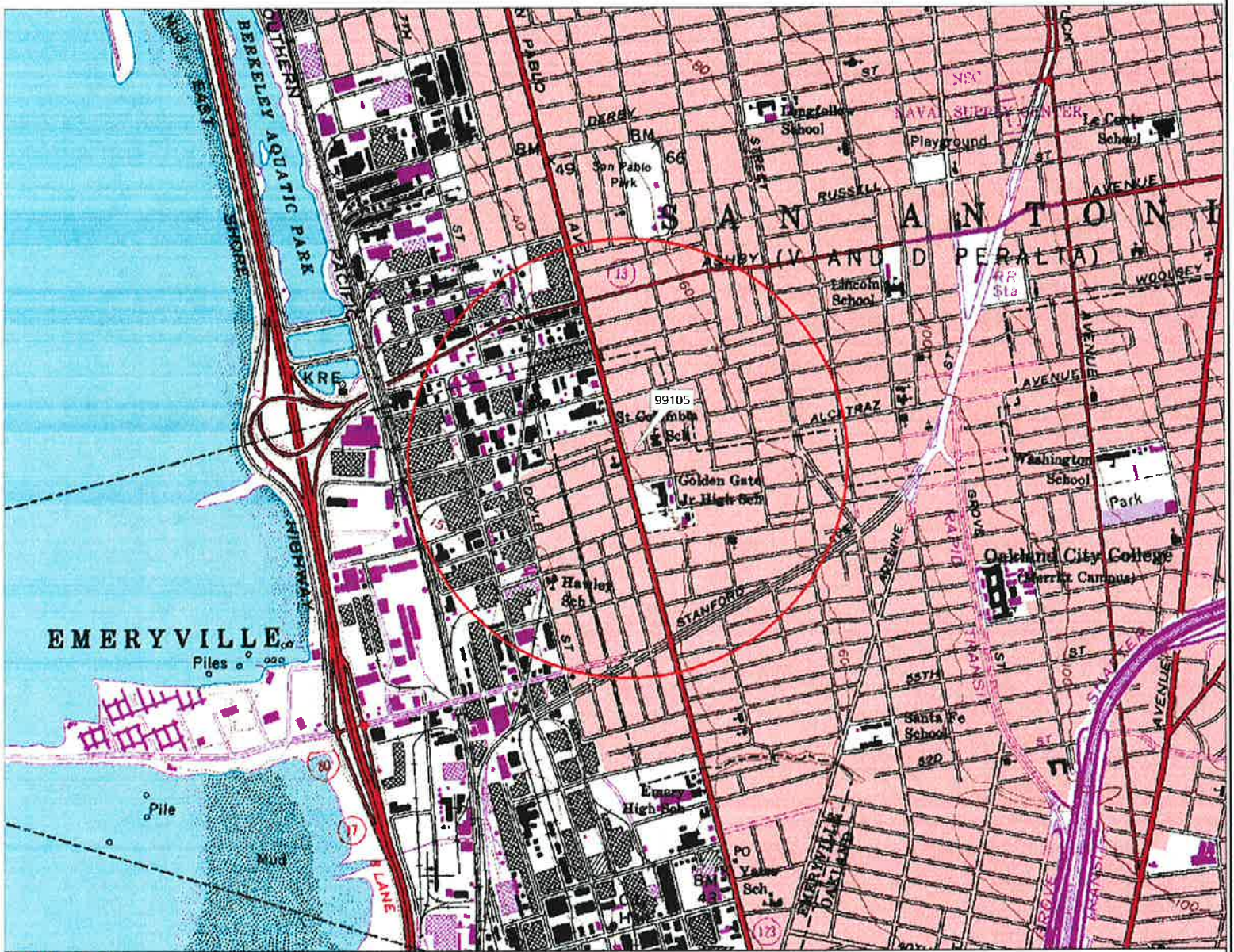
ETIC Engineering, Inc. (ETIC). March 28, 2011b. *Soil Vapor Survey Report, Former Mobil Station 99105, 6301 San Pablo Avenue, Oakland, California.*

TRC. April 11, 2000. *Supplemental Site Assessment Report.*

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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		



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FN 2783TOPO

EXPLANATION



1/2-mile radius circle



APPROXIMATE SCALE



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



SITE VICINITY MAP

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

PROJECT NO.

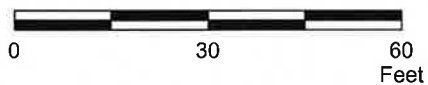
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PLATE

1



APPROXIMATE SCALE



FN 2783 12 R01 GSP_RPT



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

EXPLANATION

- MW5 Groundwater Monitoring Well
- AB13 Soil Boring

- VV5 Soil Vapor Sampling Well
- MW4 Destroyed Groundwater Monitoring Well
- MP6 Destroyed Observation Well

- PLI-5 Soil Boring by Others (Alisto Engineering Group and Tank Protect Engineering)

PROJECT NO.

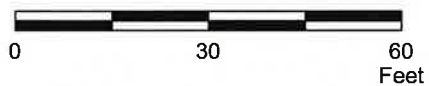
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PLATE

2



APPROXIMATE SCALE



FN 2783 12 R011QTR QM_RPT



GROUNDWATER ELEVATION MAP
January 18, 2012
FORMER MOBIL SERVICE STATION 99105
6301 San Pablo Avenue
Oakland, California

EXPLANATION

- MW5 Groundwater Monitoring Well
- 32.40 Groundwater elevation in feet; datum is mean sea level
- MP6 Destroyed Observation Well

MW4 Destroyed Groundwater Monitoring Well

32.0----- Line of Equal Groundwater Elevation; datum is mean sea level

PROJECT NO.
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PLATE
3

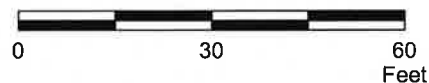
Analyte Concentrations in ug/L

Sample Date
Sample Depth
Total Petroleum Hydrocarbons as gas
Total Petroleum Hydrocarbons as diesel
Methyl Tertiary Butyl Ether
Benzene

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



APPROXIMATE SCALE



FN 2783 12 R01 GW ANALYTICAL_RPT



SELECT GROUNDWATER ANALYTICAL RESULTS

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

EXPLANATION

- MW5 Groundwater Monitoring Well
- AB13 Soil Boring
- VW5 Soil Vapor Sampling Well
- MW4 Destroyed Groundwater Monitoring Well
- MP6 Destroyed Observation Well

PROJECT NO.

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PLATE

4

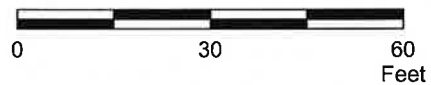
Analyte Concentrations in mg/kg

Sample Date
Sample Depth
Total Petroleum Hydrocarbons as gas
Total Petroleum Hydrocarbons as diesel
Methyl Tertiary Butyl Ether
Benzene

- < Less Than the Stated Laboratory Reporting Limit
- mg/kg Milligrams per kilograms
- b The sample extract was subjected to Silica Gel treatment prior to analysis.



APPROXIMATE SCALE



FN 2783 12 R01 SOIL ANALYTICAL_RPT



SELECT SOIL ANALYTICAL RESULTS

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

EXPLANATION

- MW5 Groundwater Monitoring Well
- AB13 Soil Boring
- VV5 Soil Vapor Sampling Well
- MW4 Destroyed Groundwater Monitoring Well
- MP6 Destroyed Observation Well

PROJECT NO.

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PLATE

5

Analyte Concentrations in mg/kg

Sample Date
Sample Depth
Total Petroleum Hydrocarbons as gas
Methyl Tertiary Butyl Ether
Benzene

< Less Than the Stated Laboratory Reporting Limit
mg/kg Milligrams per kilograms



06/26/12 DUPLICATE	
5-6 FT.	5-6 FT.
220,000,000	4,500,000
<7,200	<720
30,000	900

06/25/12	5 FT.	<7,000	<7.2	9.6
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06/26/12	5-6 FT.	<7,000	<7.2	2.2
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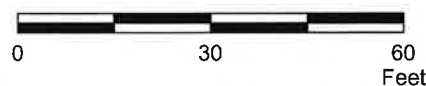
06/26/12	5-6 FT.	4,300,000	<720	370
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06/25/12	5 FT.	<7,000	<7.6	5.7
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06/26/12	5-6 FT.	8,100	<8.0	47
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06/25/12	5 FT.	8,200	<7.2	11
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APPROXIMATE SCALE



FN 2783 12 R01 SOIL VAPOR ANALYTICAL_RPT



SELECT SOIL VAPOR ANALYTICAL RESULTS

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

EXPLANATION

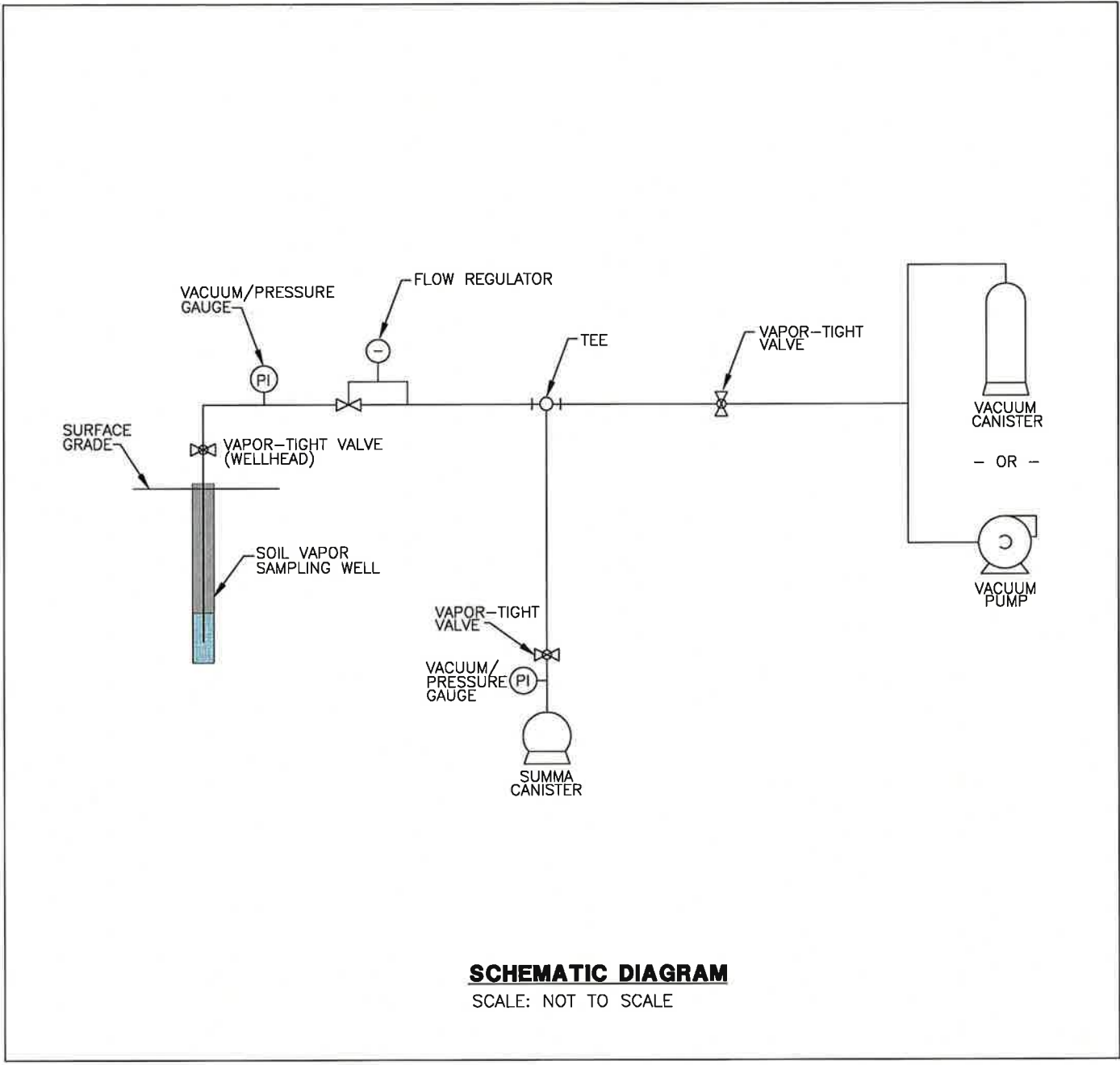
- MW5 Groundwater Monitoring Well
- MW4 Destroyed Groundwater Monitoring Well
- MP6 Destroyed Observation Well
- AB13 Soil Boring
- VW5 Soil Vapor Sampling Well

PROJECT NO.

2783

PLATE

6



FN 2783 12 R01 SVS SCHEMATIC_SP



**SOIL VAPOR
PURGING AND SAMPLING
EQUIPMENT DIAGRAM**
FORMER MOBIL SERVICE STATION 99105
6301 San Pablo Avenue
Oakland, California

PROJECT NO.	2783
PLATE	7

**TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**

Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
(Page 1 of 5)

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Environmental Screening Levels (May 2008)													
Groundwater is a current drinking water source (Table F-1a)						100	100	5.0	5.0	1.0	40	30	20
TW1	01/04/96	---	6.00	---	No	700	ND	---	---	ND	ND	ND	ND
WW1	01/04/96	---	3.00	---	No	---	ND	---	---	ND	ND	ND	ND
MW1	03/14/96	32.79	4.50	28.29	No	450	610	---	---	0.75	0.54	1.5	59
MW1	05/21/96	32.79	5.64	27.15	No	ND	ND	---	---	ND	ND	ND	ND
MW1	08/13/96	32.79	9.76	23.03	No	ND	ND	---	---	ND	ND	ND	ND
MW1	11/08/96	32.79	10.24	22.55	No	ND	ND	ND	---	ND	0.92	ND	2.1
MW1	01/31/97	32.79	3.83	28.96	No	ND	ND	2.6	ND	ND	0.85	ND	ND
MW1	04/22/97	32.79	9.14	23.65	No	ND	ND	ND	---	ND	ND	ND	ND
MW1	07/29/97	a 32.79	10.18	22.61	No	60e	ND	36	---	0.84	0.95	ND	1.6
MW1	10/09/97	a 32.79	10.46	22.33	No	56e	ND	ND	---	ND	ND	ND	ND
MW1	01/23/98	a 32.79	3.95	28.84	No	33	ND	ND	---	ND	ND	ND	ND
MW1	04/22/98	32.79	5.33	27.46	No	ND	ND	ND	---	ND	ND	ND	ND
MW1	07/21/98	32.79	9.17	23.62	No	---	ND	ND	---	ND	ND	ND	ND
MW1	10/20/98	32.79	10.41	22.38	No	---	ND	ND	---	ND	ND	ND	ND
MW1	01/27/99	32.79	5.51	27.28	No	---	ND	ND	---	ND	ND	ND	ND
MW1	Apr-99	Destroyed during construction activities.											
MW2	03/14/96	32.80	4.51	28.29	No	250	560	---	---	2.0	0.96	4.3	11
MW2	05/21/96	32.80	5.65	27.15	No	560	730	---	---	5.1	1.4	6.7	5.9
MW2	08/13/96	32.80	10.14	22.66	No	380b	490	---	---	25	3.5	7.2	13
MW2	11/08/96	32.80	10.70	22.10	No	160d	520	6.1	---	80	2.7	14	66
MW2	01/31/97	32.80	3.84	28.96	No	130b	74	ND	---	ND	ND	ND	ND
MW2	04/22/97	32.80	9.61	23.19	No	430	260	ND	---	2.7	ND	2.5	ND
MW2	07/29/97	a 32.80	10.53	22.27	No	150d	320	ND	---	28	1.2	10	ND
MW2	10/09/97	a 32.80	10.87	21.93	No	160b	460	2.6	---	43	2.8	2.0	2.6
MW2	01/23/98	a 32.80	3.75	29.05	No	54	ND	ND	---	ND	ND	ND	ND
MW2	04/22/98	32.80	5.36	27.44	No	540	180	ND	---	1.2	0.3	0.4	ND
MW2	07/21/98	32.80	9.55	23.25	No	---	80	ND	---	8.9	2.1	0.6	2.5
MW2	10/20/98	32.80	10.75	22.05	No	---	50	ND	---	0.8	0.7	ND	0.8
MW2	01/27/99	32.80	5.53	27.27	No	---	ND	ND	---	0.6	ND	ND	ND
MW2	07/27/99	32.80	6.20	26.60	No	---	ND	ND	---	ND	0.6	ND	ND
MW2	12/08/99	32.80	9.98	22.82	No	---	ND	ND	---	1.2	0.43	ND	ND
MW2	10/25/00	39.34	11.30	28.04	No	---	<20	<0.30	---	2.0	0.59	0.46	1.3
MW2	01/15/01	39.34	9.41	29.93	No	---	<20	<0.30	---	<0.20	0.46	<0.20	<0.60
MW2	04/10/01	39.34	6.16	33.18	No	---	23	<1.0	---	0.28	<0.20	<0.20	<0.60
MW2	07/24/01	39.34	10.70	28.64	No	---	<50	<0.30	---	<0.20	0.93	<0.20	0.82
MW2	11/27/01	39.34	10.15	29.19	No	---	<50	<0.30	---	1.2	0.22	<0.20	<0.60
MW2	01/18/02	41.99	5.46	36.53	No	---	<50.0	1.40	---	<0.50	<0.50	<0.50	<0.50
MW2	04/10/02	41.99	6.48	35.51	No	---	<50.0	1.80	---	<0.50	<0.50	<0.50	<0.50

**TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**

Former Mobil Service Station 99105

6301 San Pablo Avenue

Oakland, California

(Page 2 of 5)

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Environmental Screening Levels (May 2008)													
Groundwater is a current drinking water source (Table F-1a)						100	100	5.0	5.0	1.0	40	30	20
MW2	07/12/02	41.99	10.45	31.54	No	---	<50.0	<0.50	---	<0.50	<0.50	<0.50	<0.50
MW2	10/14/02	41.99	11.46	30.53	No	---	<50.0	<0.5	---	<0.5	4.1	0.6	4.0
MW2	01/20/03	41.99	5.39	36.60	No	---	<50.0	0.6	---	<0.50	<0.50	<0.50	<0.50
MW2	04/28/03	41.99	5.87	36.12	No	---	<50.0	<0.50	---	<0.50	<0.50	<0.50	<0.50
MW2	07/15/03	41.99	10.31	31.68	No	---	<50	<0.5	---	<0.5	<0.5	<0.5	<0.5
MW2	10/08/03	41.99	11.20	30.79	No	---	<50	<0.5	---	<0.5	<0.5	<0.5	<0.5
MW2	01/15/04	41.99	5.36	36.63	No	---	63.3	1.0	---	0.70	<0.5	<0.5	<0.5
MW2	Well not sampled from 2004 to 2010.												
MW2	09/17/10	41.99	10.72	31.27	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	12/15/10	42.24	Well resurveyed.										
MW2	09/14/11	42.24	10.02	32.22	No	110g	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/18/12	42.24	11.24	31.00	No	---	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/27/12	42.24	9.65	32.59	No	<50	---	---	---	---	---	---	---
MW3	03/14/96	32.80	9.55	23.25	No	1,200	4,200	---	---	220	30	140	520
MW3	05/21/96	32.80	10.16	22.64	No	2,800	8,500	---	---	710	110	440	1,700
MW3	08/13/96	32.80	11.18	21.62	No	2,300c	5,000	---	---	430	ND	200	360
MW3	11/08/96	32.80	11.51	21.29	No	2,900b	8,400	73	ND	890	82	790	1,700
MW3	01/31/97	32.80	7.90	24.90	No	7,500b	16,000	ND	---	660	85	960	1,800
MW3	04/22/97	32.80	10.64	22.16	No	2,700	8,000	200	ND	340	33	400	490
MW3	07/29/97	a 32.80	11.36	21.44	No	2,300b	9,800	ND	---	330	ND	530	530
MW3	10/09/97	a 32.80	11.52	21.28	No	2,600b	7,300	270	ND	300	ND	430	460
MW3	01/23/98	a 32.80	7.50	25.30	No	2,300	6,100	ND	---	190	23	330	320
MW3	04/22/98	32.80	6.81	25.99	No	2,600	4,900	ND	ND	140	12	250	230
MW3	07/21/98	32.80	10.65	22.15	No	---	7,400	74	ND	250	16	400	370
MW3	10/20/98	32.80	11.57	21.23	No	---	6,700	ND	ND	200	18	350	350
MW3	01/27/99	32.80	9.11	23.69	No	---	3,100	13	---	74	4	94	39
MW3	07/27/99	32.80	7.27	25.53	No	---	8,900	ND	---	170	21	360	440
MW3	12/08/99	32.80	10.63	22.17	No	---	4,800	ND	---	94	13	170	210
MW3	10/25/00	39.27	12.08	27.19	No	---	3,800	<50	<5	63	2.9	100	65
MW3	01/15/01	39.27	10.29	28.98	No	---	4,300	<5.0	---	76	9.5	47	76
MW3	04/10/01	39.27	10.11	29.16	No	---	2,700	<20	---	55	4.4	100	37
MW3	07/24/01	39.27	11.57	27.70	No	---	3,100	<1.0	---	110	6.9	110	81
MW3	11/27/01	39.27	10.93	28.34	No	---	2,400	<0.30	---	47	8.9	25	35
MW3	01/18/02	41.71	9.47	32.24	No	---	1,130	13.6	---	15.3	2.30	42.0	24.6
MW3	04/10/02	41.71	10.14	31.57	No	---	916	11.2	---	35.1	3.00	22.5	13.8
MW3	07/12/02	41.71	11.34	30.37	No	---	2,330	15.4	---	60.5	2.90	39.8	50.9
MW3	10/14/02	41.71	12.10	29.61	No	---	2,550	<0.5	---	36.9	3.8	20.3	48.0
MW3	01/20/03	41.71	9.20	32.51	No	---	1,750	10.7	---	20.4	304.0	60.7	22.0
MW3	04/28/03	41.71	9.37	32.34	No	---	2,730	11.2	---	10.0	2.7	42.7	20.1
MW3	07/15/03	41.71	11.15	30.56	No	---	1,790	5.6	---	68.8	3.6	39.0	44.7

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
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Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Environmental Screening Levels (May 2008)						100	100	5.0	5.0	1.0	40	30	20
Groundwater is a current drinking water source (Table F-1a)													
MW3	10/08/03	41.71	11.89	29.82	No	---	1,320	7.1	---	35.1	4.0	23.6	31.8
MW3	01/15/04	41.71	9.16	32.55	No	---	791	3.4	---	24.4	1.3	40.1	14.7
MW3	Well not sampled from 2004 to 2010.												
MW3	09/17/10	41.71	11.46	30.25	No	99	2,500	---	<0.50	2.6	0.31f	1.8	1.8
MW3	12/15/10	42.18	Well resurveyed.										
MW3	09/14/11	42.18	11.37	30.81	No	270g	1,200	---	<0.50	18	0.95	1.7	1.3
MW3	01/18/12	42.18	12.11	30.07	No	---	910g	---	<0.50	0.89	<0.50	<0.50	0.88
MW3	01/27/12	42.18	10.18	32.00	No	1,000g	---	---	---	---	---	---	---
MW4	03/14/96	31.50	4.92	26.58	No	3,500	12,000	---	---	2,200	140	880	2,000
MW4	05/21/96	31.50	8.60	22.90	No	4,200	11,000	---	---	1,700	ND	930	470
MW4	08/13/96	31.50	10.02	21.50	0.02	---	---	---	---	---	---	---	---
MW4	11/08/96	31.50	10.28	21.33	0.15	---	---	---	---	---	---	---	---
MW4	01/31/97	31.50	7.88	23.62	No	8,200b	23,000	ND	---	980	68	1,100	1,400
MW4	04/22/97	31.50	7.40	24.10	No	4,500	8,800	ND	---	950	ND	610	130
MW4	07/29/97	31.50	9.85	21.74	0.12	---	---	---	---	---	---	---	---
MW4	10/09/97	31.50	10.35	21.38	0.30	---	---	---	---	---	---	---	---
MW4	01/23/98	31.50	4.68	27.51	0.92	---	---	---	---	---	---	---	---
MW4	04/22/98	31.50	6.39	25.22	0.14	---	---	---	---	---	---	---	---
MW4	07/21/98	31.50	7.10	24.55	0.20	---	---	---	---	---	---	---	---
MW4	10/20/98	31.50	9.03	22.60	0.17	---	---	---	---	---	---	---	---
MW4	01/27/99	31.50	5.37	26.18	0.07	---	---	---	---	---	---	---	---
MW4	Apr-99	Destroyed during construction activities.											
MW5	10/25/00	39.18	10.92	28.26	No	---	2,500	<20	---	79	3.8	66	<20
MW5	01/15/01	39.18	8.32	30.86	No	---	3,900	<5.0	---	120	7.9	280	52
MW5	04/10/01	39.18	7.21	31.97	No	---	8,000	<50	<5	280	4.4	410	100
MW5	07/24/01	39.18	9.54	29.64	No	---	7,000	<1.0	---	360	7.4	380	67
MW5	11/27/01	39.18	8.84	30.34	No	---	5,000	8.9	<2	64	11	340	52
MW5	01/18/02	41.59	6.52	35.07	No	---	6,330	21.8	---	99.1	2.30	103	19.6
MW5	04/10/02	41.59	7.20	34.39	No	---	2,140	<2.50	---	275	8.00	183	24.5
MW5	07/12/02	41.59	8.83	32.76	No	---	3,940	20	<0.50	350	<0.50	268	14
MW5	10/14/02	41.59	10.74	30.85	No	---	4,040	<2.5	---	98.5	9.0	169	29.0
MW5	01/20/03	41.59	6.45	35.14	No	---	7,660	59	<0.50	421	10.0	743	96.0
MW5	04/28/03	41.59	6.68	34.91	No	---	7,510	47	<0.50	403	5.5	524	50.5
MW5	07/15/03	41.59	8.68	32.91	No	---	6,080	52.9	<2.5	406	19.8	412	34.7
MW5	10/08/03	41.59	10.56	31.03	No	---	2,460	54.3	<0.5	160	12.8	173	31.7
MW5	01/15/04	41.59	6.56	35.03	No	---	4,630	37.4	<0.5	181	6.0	312	38.5
MW5	Well not sampled from 2004 to 2010.												
MW5	09/17/10	41.59	9.99	31.60	No	5,700	6,600	---	<5.0	19	<5.0	16	1.4f

**TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**

Former Mobil Service Station 99105

6301 San Pablo Avenue

Oakland, California

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Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Environmental Screening Levels (May 2008)						100	100	5.0	5.0	1.0	40	30	20
Groundwater is a current drinking water source (Table F-1a)													
MW5	12/15/10	41.86	Well resurveyed.										
MW5	09/14/11	41.86	7.33	34.53	No	1,600g	7,200	---	<2.0	23	<2.0	8.6	<2.0
MW5	01/18/12	41.86	9.46	32.40	No	---	3,600g	---	<1.0	14	<1.0	7.6	<1.0
MW5	01/27/12	41.86	8.81	33.05	No	3,100g	---	---	---	---	---	---	---
Grab Groundwater Samples													
AB1	03/05/98	---	4.5	---	No	---	1,600	ND	---	31	5.3	79	130
AB2	03/05/98	---	8.0	---	No	---	ND	ND	---	ND	2.9	0.9	5.7
AB3	03/05/98	---	5.5	---	No	---	6,800	230	---	680	100	1,500	2,300
AB4	03/05/98	---	4.0	---	No	---	8,500	ND	---	240	ND	260	720
AB6	03/05/98	---	4.5	---	No	---	12,000	ND	---	350	ND	310	100
AB9	03/05/98	---	6.0	---	No	---	1,000	ND	---	57	12	44	93
AB10	03/05/98	---	2.0	---	No	---	200	ND	---	3.0	1.2	3.2	2.8
AB11	03/05/98	---	8.5	---	No	---	ND	ND	---	ND	ND	ND	ND
AB12	03/05/98	---	6.0	---	No	---	8,800	37	---	660	50	630	940
AB13	03/05/98	---	8.0	---	No	---	210	ND	---	11	0.8	10	15
HA1	01/25/00	---	---	---	---	---	<500	<5.0	---	<0.3	<0.3	<0.3	<0.6
B1	11/18/10	---	---	---	---	---	---	---	---	---	---	---	---
B2	11/19/10	---	---	---	---	---	---	---	---	---	---	---	---
B3	11/19/10	---	---	---	---	<50	<50	---	<0.50	<0.50	<0.50	0.053f	0.21f
B4	11/19/10	---	---	---	---	---	---	---	---	---	---	---	---
B5	11/18/10	---	---	---	---	<50	<50	---	<0.50	<0.50	<0.50	0.047f	0.21f
W-15-B6	06/19/12	---	15	---	---	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
W-15-B7	06/19/12	---	15	---	---	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
W-9.5-B8	06/19/12	---	9.5	---	---	230g	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Former Mobil Service Station 99105
 6301 San Pablo Avenue
 Oakland, California
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Notes:	Adapted from ETIC's <i>Report of Groundwater Monitoring, Third Quarter 2010</i> .	
TOC Elev.	=	Top of casing elevation.
DTW	=	Depth to water.
GW Elev.	=	Groundwater elevation.
NAPL	=	Non-aqueous phase liquid.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B.
MTBE 8020/8021	=	Methyl tertiary butyl ether analyzed using EPA Method 8020 or 8021B.
MTBE 8240/8260	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B or 8240.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method 8260B.
EDB	=	1,2-dibromoethane analyzed using EPA Method 8260B.
Ethanol	=	Ethanol analyzed using EPA Method 8260B.
ND	=	Not detected at or above the laboratory reporting limit.
µg/L	=	Micrograms per liter.
<	=	Less than the stated laboratory reporting limit.
---	=	Not analyzed/Not applicable.
a	=	Well sampled using no-purge method.
b	=	Diesel and unidentified hydrocarbons <C15.
c	=	Diesel and unidentified hydrocarbons <C15>C25.
d	=	Diesel and unidentified hydrocarbons >C20.
e	=	Unidentified hydrocarbons >C18.
f	=	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit.
g	=	Chromatographic pattern does not match that of the specified standard.

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

Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
(Page 1 of 2)

Well ID	Sampling Date	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
Environmental Screening Levels (May 2008)								
Groundwater is a current drinking water		---	---	---	12	0.50	0.05	---
TW1	01/04/96	---	---	---	---	---	---	---
WW1	01/04/96	---	---	---	---	---	---	---
MW1	03/14/96 - 01/27/99 Not analyzed for these analytes.							
MW1	Apr-99 Destroyed during construction activities.							
MW2	03/14/96 - 01/15/04 Not analyzed for these analytes.							
MW2	09/17/10	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---
MW2	09/14/11	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50
MW2	01/18/12	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50
MW2	01/27/12	---	---	---	---	---	---	---
MW3	03/14/96 - 01/15/04 Not analyzed for these analytes.							
MW3	09/17/10	0.17f	<0.50	<0.50	9.8f	1.9	<0.50	---
MW3	09/14/11	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50
MW3	01/18/12	<0.50	<0.50	<0.50	23	<0.50	<0.50	<50
MW3	01/27/12	---	---	---	---	---	---	---
MW4	03/14/96 - 01/27/99 Not analyzed for these analytes.							
MW4	Apr-99 Destroyed during construction activities.							
MW5	10/25/00 - 01/15/04 Not analyzed for these analytes.							
MW5	09/17/10	<5.0	<5.0	<5.0	<100	<5.0	<5.0	---
MW5	09/14/11	<2.0	<2.0	<2.0	25	<2.0	<2.0	<200
MW5	01/18/12	<1.0	<1.0	<1.0	37	<1.0	<1.0	<100
MW5	01/27/12	---	---	---	---	---	---	---
Grab Groundwater Samples								
Not analyzed for these analytes prior to 2012.								
B1	11/18/10	---	---	---	---	---	---	---
B3	11/19/10	---	---	---	---	8.7	---	---
B4	11/19/10	---	---	---	---	---	---	---
B5	11/18/10	---	---	---	---	0.099f	---	---

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

Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
(Page 2 of 2)

Well ID	Sampling Date	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
Environmental Screening Levels (May 2008)								
Groundwater is a current drinking water		---	---	---	12	0.50	0.05	---
W-15-B6	06/19/12	<0.50	<0.50	<0.50	<5.0	---	---	---
W-15-B7	06/19/12	<0.50	<0.50	<0.50	<5.0	---	---	---
W-9.5-B8	06/19/12	<0.50	<0.50	<0.50	<5.0	---	---	---

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

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

Well ID	Well Installation Date	Well Destruction Date	TOC Elevation (feet)	Well Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material
MW1	03/01/96	Apr-99	32.79	PVC	21.5	20	10	4	5-20	0.010	4.5-21.5	#12 Sand
MW2	03/01/96	---	42.24	PVC	21.5	20	10	4	5-20	0.010	4.5-21.5	#12 Sand
MW3	03/01/96	---	42.18	PVC	21.5	20	10	4	5-20	0.010	4.5-21.5	#12 Sand
MW4	03/01/96	Apr-99	31.50	PVC	26.5	25	10	4	5-25	0.010	4.5-21.5	#12 Sand
MW5	09/06/00	---	41.86	PVC	21.5	20	10	4	5-20	0.010	4-21.5	#2/12 Sand
VW1	11/01/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW2	11/02/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW3	11/01/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW4	11/02/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW5	11/02/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
TW1	---	---	---	---	---	---	---	---	---	---	---	---
MP1	11/16/98	1998	---	---	---	---	---	---	---	---	---	---
MP2	11/16/98	1998	---	---	---	---	---	---	---	---	---	---
MP3	11/16/98	1998	---	---	---	---	---	---	---	---	---	---
MP4	11/16/98	1998	---	---	---	---	---	---	---	---	---	---
MP5	11/16/98	1998	---	---	---	---	---	---	---	---	---	---
MP6	11/16/98	1998	---	---	---	---	---	---	---	---	---	---
WW1	---	---	---	---	---	---	---	---	---	---	---	---
SVS1	06/18/12	---	38.78	PVC/Stainless Steel	5.5	5	3.25	0.25	4.75-5	0.010	4.5-5	#3 Sand
SVS2	06/18/12	---	41.05	PVC/Stainless Steel	5.5	5	3.25	0.25	4.75-5	0.010	4.5-5	#3 Sand
SVS3	06/18/12	---	42.64	PVC/Stainless Steel	5.5	5	3.25	0.25	4.75-5	0.010	4.5-5	#3 Sand

Notes:

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

TABLE 3
CUMULATIVE SOIL SAMPLE ANALYTICAL DATA

Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
(Page 2 of 5)

Sample ID	Sample Date	Depth (feet bgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE 8020/8021 (mg/kg)	MTBE (8260B) (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Lead (mg/kg)	TOG (mg/kg)
Environmental Screening Levels, Shallow Soils, Groundwater is a Current/Potential Source of Drinking Water (May 2008)																		
Residential Land Use (Table A)			83	83	0.023	0.023	0.044	2.9	2.3	2.3	0.075	---	---	---	0.0045	0.00033	200	---
AB-8	03/05/98	5'	---	ND	ND	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---
AB-9	03/05/98	4	---	16	ND	---	0.006	ND	0.028	ND	---	---	---	---	---	---	---	---
AB-10	03/05/98	4	---	ND	ND	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---
AB-11	03/05/98	5 - 6	---	3.9	ND	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---
AB-12	03/16/98	5 - 6	---	ND	ND	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---
AB-13	03/16/98	5 - 6	---	ND	ND	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---
MP-1	11/16/98	7.5	---	10	ND	---	ND	0.007	0.013	ND	---	---	---	---	---	---	---	---
MP-2	11/16/98	7	---	270	ND	---	ND	0.03	0.29	2.1	---	---	---	---	---	---	---	---
MP-2	11/16/98	10.5	---	140	0.15	---	0.08	ND	0.31	ND	---	---	---	---	---	---	---	---
MP-3	11/16/98	7.5	---	230	0.28	---	ND	0.1	1.6	ND	---	---	---	---	---	---	---	---
MP-4	11/16/98	5	---	120	0.19	---	ND	ND	0.35	ND	---	---	---	---	---	---	---	---
MP-4	11/16/98	10	---	18	ND	---	ND	0.013	0.07	0.086	---	---	---	---	---	---	---	---
MP-5	11/16/98	6.5	---	6.4	ND	---	ND	ND	0.015	0.022	---	---	---	---	---	---	---	---
MP-5	11/16/98	10.5	---	220	0.52	---	ND	ND	1.4	3	---	---	---	---	---	---	---	---
MP-6	11/16/98	7	---	ND	ND	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---
MP-6	11/16/98	10	---	240	0.92	ND	ND	ND	1.6	4.2	---	---	---	---	---	---	---	---
HA-1	01/25/00	5	---	<0.50	<0.025	---	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---	---
B1	11/17/10	5-5.5	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B1	11/18/10	9.5-10	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B1	11/18/10	14.5-15	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B1	11/18/10	19.5-20	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B1	11/18/10	24.5-25	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B2	11/17/10	5-5.5	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B2	11/18/10	8.5-9	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B2	11/19/10	14.5-15	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B2	11/19/10	19.5-20	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---

**TABLE 3
CUMULATIVE SOIL SAMPLE ANALYTICAL DATA**

Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
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Sample ID	Sample Date	Depth (feet bgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE 8020/8021 (mg/kg)	MTBE (8260B) (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Lead (mg/kg)	TOG (mg/kg)
Environmental Screening Levels, Shallow Soils, Groundwater is a Current/Potential Source of Drinking Water (May 2008)																		
Residential Land Use (Table A)			83	83	0.023	0.023	0.044	2.9	2.3	2.3	0.075	---	---	---	0.0045	0.00033	200	---
B3	11/17/10	5-5.5	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B3	11/18/10	9.5-10	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B3	11/19/10	12-12.5	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B3	11/19/10	14.5-15	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B3	11/19/10	17-17.5	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B3	11/19/10	19.5-20	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B4	11/17/10	5-5.5	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B4	11/18/10	9.5-10	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B4	11/19/10	14.5-15	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B4	11/19/10	19.5-20	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B5	11/17/10	5-5.5	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B5	11/18/10	9.5-10	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B5	11/19/10	14.5-15	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
B5	11/19/10	19.5-20	<5.0b	<0.50	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	ND	ND	ND	ND	ND	---	---
S-5-SVS1	06/18/12	5	<5.0	<0.50b	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---	---
S-5-SVS2	06/18/12	5	<5.0	<0.50b	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---	---
S-5-SVS3	06/18/12	5	<5.0	<0.50b	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---	---
Tank Excavation Samples																		
S-1	08/05/94	11		6.5	---	---	0.18	0.082	0.37	1.2	---	---	---	---	---	---	---	---
S-2	08/05/94	11		3.2	---	---	0.11	<0.050	0.16	0.21	---	---	---	---	---	---	---	---
S-3	08/05/94	11		540	---	---	<1.5	4.1	24	72	---	---	---	---	---	---	---	---
S-4	08/05/94	11		73	---	---	<0.067	0.21	1.5	6.8	---	---	---	---	---	---	---	---
S-5	08/05/94	11		0.84	---	---	<0.050	<0.050	<0.050	0.031	---	---	---	---	---	---	---	---
S-6	08/05/94	11		40	---	---	<0.014	0.059	0.25	0.6	---	---	---	---	---	---	---	---
TS-1	01/04/96	4	21	3.8	---	---	<0.005	0.0085	<0.005	<0.005	---	---	---	---	---	---	<2.5	---
TS-2	01/04/96	4	20	<1.0	---	---	<0.005	<0.005	<0.005	0.0053	---	---	---	---	---	---	<2.5	---
TS-3	01/04/96	4	44	9.5	---	---	0.11	0.28	0.019	0.021	---	---	---	---	---	---	160	---
TS-4	01/04/96	5	1.8	1.7	---	---	<0.005	0.014	0.0081	0.0086	---	---	---	---	---	---	<2.5	---
TS-5	01/04/96	5	2.0	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	<2.5	---
TS-6	01/04/96	4	2.0	<1.0	---	---	<0.005	0.0095	<0.005	0.015	---	---	---	---	---	---	86	---
TPSW-1	02/14/96	---	160	640	---	---	<0.0050	0.32	6.5	36	---	---	---	---	---	---	5.3	---
TPSE-1	02/14/96	---	160	93	---	---	<0.0050	<0.0050	0.43	2.7	---	---	---	---	---	---	5.8	---

**TABLE 3
CUMULATIVE SOIL SAMPLE ANALYTICAL DATA**

Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
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Sample ID	Sample Date	Depth (feet bgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE 8020/8021 (mg/kg)	MTBE (8260B) (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Lead (mg/kg)	TOG (mg/kg)
Environmental Screening Levels, Shallow Soils, Groundwater is a Current/Potential Source of Drinking Water (May 2008)																		
Residential Land Use (Table A)			83	83	0.023	0.023	0.044	2.9	2.3	2.3	0.075	---	---	---	0.0045	0.00033	200	---
Tank Excavation Samples, Waste Oil																		
WO-1	08/05/94	6	1.2	21	---	---	<0.015	0.11	0.34	1.5	---	---	---	---	---	---	4.3	94
S-WON	01/04/96	3	2.9	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	30	8.5
S-WOS	01/04/96	3	1.6	<1.0	---	---	<0.005	<0.005	<0.005	0.095	---	---	---	---	---	---	28	10
Product Line Samples																		
PL1-1	02/14/96	3	14.0	<1.0	---	---	<0.0050	<0.0050	<0.005	<0.0050	---	---	---	---	---	---	11	---
PL1-2	02/14/94	2.5	<1.0	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	5.0	---
PL1-3	02/15/96	2.5	37	240	---	---	0.24	0.59	1.10	1.3	---	---	---	---	---	---	6.5	---
PL1-5	02/15/96	2	4.9	63	---	---	0.30	0.42	0.31	0.4	---	---	---	---	---	---	8.2	---
PL4-1	02/14/94	3	7.7000	1.4	---	---	0.056	0.078	0.0073	0.0420	---	---	---	---	---	---	9.9	---
PL4-2	02/15/96	2.5	<1.0	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	5.5	---
PL4-3	02/15/96	5	3.0	4.3	---	---	0.0086	0.0075	0.04	0.1	---	---	---	---	---	---	6.3	---
PL4-4	02/15/96	5	3.2	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	4.6	---
Soil Stockpile Samples																		
WO-(1-2) d	01/04/96	---	38	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	20	240
SPPL4-(1-4)	03/01/96	---	11	9	---	---	0.013	0.03	0.13	0.054	---	---	---	---	---	---	<2.5	---
Comp-1	01/25/00	Composite	---	<0.50	<0.025	---	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	8.04	---
S-SP1-1	06/19/12	---	<5.0	<0.50	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	16.1	---
S-SP1-2	06/19/12	---	<5.0	<0.50	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	24.4	---
S-SP1-3	06/19/12	---	5.7	<0.50	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	12.7	---
S-SP1-4	06/19/12	---	<5.0	<0.50	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	21.5	---

**TABLE 3
CUMULATIVE SOIL SAMPLE ANALYTICAL DATA**

Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
(Page 5 of 5)

Notes:	=	
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B.
MTBE (8020/8021)	=	Methyl tertiary butyl ether analyzed using EPA Method 8020 or 8021B).
MTBE (8260B)	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method 8260B.
EDB	=	1,2-dibromoethane analyzed using EPA Method 8260B.
TOG	=	Total oil and grease.
ND	=	Not detected at or above the laboratory reporting limit.
feet bgs	=	Feet below ground surface.
mg/kg	=	Milligrams per kilogram.
<	=	Less than the stated laboratory reporting limit.
---	=	Not analyzed/Not sampled/Not applicable.
a	=	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
b	=	The sample extract was subjected to Silica Gel treatment prior to analysis.
c	=	The chromatographic pattern does not match that of the specified standard.
d	=	Sample WO-(1-2) analyzed for cadmium (<0.0250 parts per million [ppm]), chromium (12.000 ppm), lead (4.3000 ppm), nickel (38.000 ppm), and zinc (71.000 ppm).

**TABLE 4A
CUMULATIVE SOIL VAPOR ANALYTICAL DATA**

Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
(Page 1 of 2)

Well ID	Sample Date	Depth (feet bgs)	TPHg ($\mu\text{g}/\text{m}^3$)	MTBE ($\mu\text{g}/\text{m}^3$)	B ($\mu\text{g}/\text{m}^3$)	T ($\mu\text{g}/\text{m}^3$)	E ($\mu\text{g}/\text{m}^3$)	X ($\mu\text{g}/\text{m}^3$)	1,2-DCA ($\mu\text{g}/\text{m}^3$)	EDB ($\mu\text{g}/\text{m}^3$)	TBA ($\mu\text{g}/\text{m}^3$)	DIPE ($\mu\text{g}/\text{m}^3$)	ETBE ($\mu\text{g}/\text{m}^3$)	TAME ($\mu\text{g}/\text{m}^3$)	O ₂ + A (%V)	Methane (%V)	CO ₂ (%V)	Helium (%V)	Vacuum (%V)
Environmental Screening Levels, Shallow Soil Gas (May 2008)																			
Residential Land Use (Table E)			10,000	9,400	84	63,000	980	21,000f	94	4.1	---	---	---	---	---	---	---	---	---
SVS1	06/25/12	---	8,200	<7.2	11	12	6.2	26	<2.0	<3.8	<6.1	<8.4	<8.4	<8.4	11.0	<0.500	0.817	0.0107	-5.00
SVS2	06/25/12	---	<7,000	<7.6	5.7	4.6	4.1	25	<2.1	<4.1	<6.4	<8.9	<8.9	<8.9	15.5	<0.500	3.27	<0.0100	-5.00
SVS3	06/25/12	---	<7,000	<7.2	9.6	4.5	<2.2	13	<2.0	<3.8	<6.1	<8.4	<8.4	<8.4	20.3	<0.500	1.69	<0.0100	-5.00
VW1	11/09/10	5-6	190,000	<13	10	17	80	100	<3.6	<6.9	<11	<15	<15	<15	3.75	<0.895	14.0	---	---
VW1	06/26/12	5-6	8,100	<8.0	47	33	9.4	84	<2.2	<4.3	<6.7	<9.3	<9.3	<9.3	7.76	0.514	11.2	0.0688	-5.00
VW2	11/09/10	5-6	20,000	<9.8	<2.2	<2.6	<3.0	<12	4.8	<5.2	<8.2	<11	<11	<11	18.5	<0.680	3.02	---	---
VW2	06/26/12	5-6	<7,000	<7.2	2.2	3.0	<2.2	<8.7	<2.0	<3.8	<6.1	<8.4	<8.4	<8.4	16.9	<0.500	4.28	<0.0100	-5.00
VW3	11/09/10	5-6	120,000	<11	9.7	25	9.0	36	4.2	<5.9	<9.3	<13	<13	<13	1.55	<0.765	16.6	---	---
VW4	11/09/10	5-6	250,000,000	<10,000	16,000	9,200	71,000	60,000	<2,900	<5,400	<8,500	<12,000	<12,000	<12,000	1.59	14.2	14.1	<16,400g	---
VW4	06/26/12	5-6	220,000,000	<7,200	30,000	<1,900	95,000	20,000	<2,000	<3,800	<6,100	<8,400	<8,400	<8,400	2.27	40.4	18.0	<0.0100	-5.00
VW4 (DUP)	06/26/12	5-6	4,500,000	<720	900	<190	2,300	<870	<200	<380	<610	<840	<840	<840	21.6	1.36	<0.500	1.98	-5.00
VW5	11/09/10	5-6	31,000,000	<2,300	1,000	<590	<680	<2,700	<640	<1,200	<1,900	<2,600	<2,600	<2,600	10.3	6.61	12.5	<16,400g	---
VW5 (DUP)	11/09/10	5-6	30,000,000	<2,200	740	<570	<660	<2,600	<610	<1,200	<1,800	<2,500	<2,500	<2,500	9.10	6.44	13.1	<16,400g	---
VW5	06/26/12	5-6	4,300,000	<720	370	<190	<220	<870	<200	<380	<610	<840	<840	<840	14.6	5.36	7.95	<0.0100	-5.00

- Notes:
- TPHg = Total petroleum hydrocarbons analyzed using EPA Method TO-3M.
 - MTBE = Methyl tertiary butyl ether analyzed using EPA Method TO-15.
 - BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method TO-15.
 - 1,2-DCA = 1,2-dichloroethane analyzed using EPA Method TO-15.
 - EDB = 1,2-dibromoethane analyzed using EPA Method TO-15.
 - TBA = Tertiary butyl alcohol analyzed using EPA Method TO-15.
 - DIPE = Di-isopropyl ether analyzed using EPA Method TO-15.
 - ETBE = Ethyl tertiary butyl ether analyzed using EPA Method TO-15.
 - TAME = Tertiary amyl methyl ether analyzed using EPA Method TO-15.
 - O₂ + A = Oxygen plus argon analyzed using ASTM D-1946.
 - Methane = Methane analyzed using ASTM D-1946.
 - CO₂ = Carbon dioxide analyzed using ASTM D-1946.
 - Helium = Helium analyzed using ASTM D-1946.
 - Vacuum = Vacuum collected using a vacuum gauge.
 - Acetone = Acetone analyzed using EPA Method T0-15.
 - 2-Butanone = 2-Butanone analyzed using EPA Method T0-15.
 - Carbon Disulfide = Carbon Disulfide analyzed using EPA Method T0-15.
 - Chlorobenzene = Chlorobenzene analyzed using EPA Method T0-15.
 - Chloroform = Chloroform analyzed using EPA Method T0-15.
 - Chloromethane = Chloromethane analyzed using EPA Method T0-15.
 - 4-ethyltoluene = 4-ethyltoluene analyzed using EPA Method T0-15.
 - PCE = Tetrachloroethene analyzed using EPA Method T0-15.
 - TCE = Trichloroethene analyzed using EPA Method T0-15.
 - Ethanol = Ethanol analyzed using EPA Method T0-15.

TABLE 4A
CUMULATIVE SOIL VAPOR ANALYTICAL DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
(Page 2 of 2)

Notes (Cont.):

Add'l VOCs	=	Add'l volatile organic carbons analyzed using EPA Method T0-15.
ppm	=	Parts per million.
feet bgs	=	Feet below ground surface.
---	=	Not analyzed.
a	=	1,2-dichlorobenzene.
b	=	1,4-dichlorobenzene.
c	=	1,3,5 trimethylbenzene.
d	=	1,2,4-trimethylbenzene.
e	=	Bromodichloromethane.
f	=	ESLs are established for total xylenes.
g	=	Results are shown in micrograms per cubic meter.

TABLE 4B
ADDITIONAL CUMULATIVE SOIL VAPOR ANALYTICAL DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
(Page 1 of 2)

Well ID	Sample Date	Depth (feet bgs)	Acetone (µg/m ³)	2-Butanone (µg/m ³)	Carbon Disulfide (µg/m ³)	Chlorobenzene (µg/m ³)	Chloroform (µg/m ³)	Chloromethane (µg/m ³)	4-ethyltoluene (µg/m ³)	PCE (µg/m ³)	TCE (µg/m ³)	Ethanol (µg/m ³)	Add'l VOCs (µg/m ³)
Environmental Screening Levels, Shallow Soil Gas (May 2008)													
Residential Land Use (Table E)			660,000	---	---	210,000	460	19,000	---	410	1,200		42,000a, 220b, 140e
SVS1	06/25/12	---	18	4.8	28	7.0	2.7	1.1	<2.5	<3.4	<2.7	<9.4	ND
SVS2	06/25/12	---	15	<4.7	15	5.7	8.9	<1.1	<2.6	<3.6	<2.8	<10	ND
SVS3	06/25/12	---	18	<4.4	16	13	6.8	<1.0	<2.5	6.9	37	<9.4	3.1a
VW1	11/09/10	5-6	---	---	---	---	---	---	---	---	---	---	---
VW1	06/26/12	5-6	37	9.4	8.8	53	<2.7	<1.1	3.7	<3.8	<3.0	39	12a, 12b, 4.1c, 16d
VW2	11/09/10	5-6	---	---	---	---	---	---	---	---	---	---	---
VW2	06/26/12	5-6	6.1	<4.4	<6.2	4.0	300	<1.0	<2.5	8.1	4.7	25	4.2e
VW3	11/09/10	5-6	---	---	---	---	---	---	---	---	---	---	---
VW4	11/09/10	5-6	---	---	---	---	---	---	---	---	---	---	---
VW4	06/26/12	5-6	<4,800	<4,400	<6,200	<2,300	<2,400	<1,000	15,000	<3,400	<2,700	<9,400	29,000c, 72,000d
VW4 (DUP)	06/26/12	5-6	<480	<440	<620	<230	<240	<100	310	<340	<270	<940	530c, 1,100d
VW5	11/09/10	5-6	---	---	---	---	---	---	---	---	---	---	---
VW5 (DUP)	11/09/10	5-6	---	---	---	---	---	---	---	---	---	---	---
VW5	06/26/12	5-6	<480	<440	<620	<230	<240	<100	<250	<340	<270	<940	ND

- Notes:
- TPHg = Total petroleum hydrocarbons analyzed using EPA Method TO-3M.
 - MTBE = Methyl tertiary butyl ether analyzed using EPA Method TO-15.
 - BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method TO-15.
 - 1,2-DCA = 1,2-dichloroethane analyzed using EPA Method TO-15.
 - EDB = 1,2-dibromoethane analyzed using EPA Method TO-15.
 - TBA = Tertiary butyl alcohol analyzed using EPA Method TO-15.
 - DIPE = Di-isopropyl ether analyzed using EPA Method TO-15.
 - ETBE = Ethyl tertiary butyl ether analyzed using EPA Method TO-15.
 - TAME = Tertiary amyl methyl ether analyzed using EPA Method TO-15.
 - O₂ + A = Oxygen plus argon analyzed using ASTM D-1946.
 - Methane = Methane analyzed using ASTM D-1946.
 - CO₂ = Carbon dioxide analyzed using ASTM D-1946.
 - Helium = Helium analyzed using ASTM D-1946.
 - Vacuum = Vacuum collected using a vacuum gauge.
 - Acetone = Acetone analyzed using EPA Method TO-15.

TABLE 4B
ADDITIONAL CUMULATIVE SOIL VAPOR ANALYTICAL DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California
(Page 2 of 2)

Notes (Cont.):	=	
2-Butanone	=	2-Butanone analyzed using EPA Method T0-15.
Carbon Disulfide	=	Carbon Disulfide analyzed using EPA Method T0-15.
Chlorobenzene	=	Chlorobenzene analyzed using EPA Method T0-15.
Chloroform	=	Chloroform analyzed using EPA Method T0-15.
Chloromethane	=	Chloromethane analyzed using EPA Method T0-15.
4-ethyltoluene	=	4-ethyltoluene analyzed using EPA Method T0-15.
PCE	=	Tetrachloroethene analyzed using EPA Method T0-15.
TCE	=	Trichloroethene analyzed using EPA Method T0-15.
Ethanol	=	Ethanol analyzed using EPA Method T0-15.
Add'l VOCs	=	Add'l volatile organic carbons analyzed using EPA Method T0-15.
ppm	=	Parts per million.
feet bgs	=	Feet below ground surface.
---	=	Not analyzed.
a	=	1,2-dichlorobenzene.
b	=	1,4-dichlorobenzene.
c	=	1,3,5 trimethylbenzene.
d	=	1,2,4-trimethylbenzene.
e	=	Bromodichloromethane.
f	=	ESLs are established for total xylenes.
g	=	Results are shown in micrograms per cubic meter.

APPENDIX A

CORRESPONDENCE



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

November 14, 2011

Jennifer Sedlachek
ExxonMobil
4096 Piedmont, Ave., #194
Oakland, CA 94611

On Dan and Nathan Lam
200 El Dorado Terrace
San Francisco, CA 94112

Subject: Work Plan Approval for Fuel Leak Case No. RO0000445 and Geotracker Global ID T0600101855, Mobil#99-105 / Cars Rent A Car, 6301 San Pablo Avenue, Oakland, CA 94608

Dear Ms. Sedlachek and Messrs. Lam:

Thank you for the recently submitted reports entitled, *Work Plan for Soil Vapor Sampling* dated September 16, 2011 and prepared by ETIC Engineering, Inc. for the subject site. Alameda County Environmental Health (ACEH) staff has reviewed the case file including the above-mentioned work plan for the above-referenced site. The work plan proposes a soil and soil-vapor investigation at nearby off-site properties.

We request that you address the following technical comments, perform the proposed work, and send us the technical reports requested below.

TECHNICAL COMMENTS

1. **Soil Characterization** – Please use ENCOR sampling for your soil samples as per your Standard Operating Procedures.
2. **Conclusions and Recommendations** – As discussed in ACEH's letter dated July 21, 2011, the reports for the last investigation did not present conclusions or recommendations but stated that "recommendations will be submitted under separate cover". Please include conclusions and recommendations in the report requested below.
3. **Soil Gas Sampling** – Please collect another round of soil vapor samples from the on-site vapor monitoring wells when you collect the off-site vapor samples.
4. **Conclusions and Recommendations** – As discussed in ACEH's letter dated July 21, 2011, the reports for the last investigation did not present conclusions or recommendations but stated that "recommendations will be submitted under separate cover". Please include conclusions and recommendations in the report requested below.
5. **Corrective Action Plan** – The maximum on-site soil vapor concentrations were 250,000,000 $\mu\text{g}/\text{m}^3$ total petroleum hydrocarbons as gasoline (TPHg) and 16,000 $\mu\text{g}/\text{m}^3$ benzene. These values exceed the San Francisco Regional Water Quality Control Board (SFRWQCB) environmental screening levels (ESLs) by multiple orders of magnitude for both residential and commercial land use. In addition, a church and residential properties are located

downgradient and possibly over the contamination. At this time, a Feasibility Study/Corrective Action Plan (FS/CAP) prepared in accordance with Title 23, California Code of Regulations, Section 2725 appears warranted. The FS/CAP must include a concise background of soil and groundwater investigations performed in connection with this case and an assessment of the residual impacts of the chemicals of concern (COCs) for the site and the surrounding area where the unauthorized release has migrated or may migrate. The FS/CAP should also include, but is not limited to, a detailed description of site lithology, including soil permeability, and most importantly, contamination cleanup levels and cleanup goals, in accordance with the SFRWQCB Basin Plan and for the appropriate groundwater designation. Please note that soil cleanup levels should ultimately (within a reasonable timeframe) achieve water quality objectives (cleanup goals) for groundwater in accordance with the SFRWQCB Basin Plan. Please specify appropriate cleanup levels and cleanup goals in accordance with 23 CCR Section 2725, 2726, and 2727 in the FS/CAP.

The FS/CAP must evaluate at least three viable alternatives for remedying or mitigating the actual or potential adverse affects of the unauthorized release(s) besides the 'no action' and 'monitored natural attenuation' remedial alternatives. Each alternative shall be evaluated not only for cost-effectiveness but also its timeframe to reach cleanup levels and cleanup goals, and ultimately the Responsible Party must propose the most cost-effective corrective action.

NOTIFICATION OF FIELDWORK ACTIVITIES

Please schedule the fieldwork and provide ACEH with at least three (3) business days notification (preferably by e-mail to barbara.jakub@acgov.org) prior to conducting the fieldwork.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Barbara Jakub), according to the following schedule:

- **January 17, 2011** – Soil and Water Investigation Report
- **60 Days after SWI Submittal** – FS/CAP
- **March 30, 2012** – Groundwater Monitoring Report (1st Half- 2012)

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 639-1287 or send me an electronic mail message at barbara.jakub@acgov.org.

Sincerely,



Barbara J. Jakub, P.G.
Hazardous Materials Specialist

Digitally signed by Barbara J. Jakub
DN: cn=Barbara J. Jakub, o, ou,
email=barbara.jakub@acgov.org,
c=US
Date: 2011.11.14 11:30:02 -08'00'

Attachment 1

Enclosure: Responsible Party(ies) Legal Requirements/Obligations
ACEH Electronic Report Upload (ftp) Instructions

cc: Paula Sime, Cardno ERI, 601 North McDowell Blvd., Petaluma, CA 94954-2312 (*Sent via e-mail to: psime@ERI-US.com*)

Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)

Barbara Jakub, ACEH (*Sent via E-mail to: barbara.jakub@acgov.org*)

GeoTracker

File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "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." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	REVISION DATE: July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

Paula Sime

From: Jakub, Barbara, Env. Health <barbara.jakub@acgov.org>
Sent: Friday, January 06, 2012 10:16 AM
To: Paula Sime
Subject: RE: 6301 San Pablo Ave, Oakland (RO#445)

Your request to extend the deadline for the SWI until April 30, 2012 is approved. If you do have access problems please feel free to let me know and I can send a letter to the owner for you.

Regards,

Barbara Jakub, P.G.
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Pky.
Alameda, CA 94502
Direct: 510-639-1287
Fax: 510-337-9335

PDF copies of case files can be downloaded at:

<http://www.acgov.org/aceh/top/ust.htm>

From: Paula Sime [mailto:paula.sime@cardno.com]
Sent: Friday, January 06, 2012 10:01 AM
To: Jakub, Barbara, Env. Health
Subject: 6301 San Pablo Ave, Oakland (RO#445)



Hi Barb,

We have a deadline of January 17th for the assessment report at Former Mobil 99105, 6301 San Pablo Ave, Oakland (RO#445). We're working on getting access to the adjacent site to conduct the work but don't have it yet. The property is owned by the church and we've sent a letter and talked to the pastor of the church but he wants to review it with some other church members before he signs our access agreement, which will happen in a meeting sometime in the next month or so. I don't anticipate any major problems with the access, but would like to give them a chance to talk things over. Would it be acceptable to extend this deadline out a couple of months? If we get access by the end of February, we could do the install in March and report the results by April 30th. Let me know if that's acceptable and I'm in the office if you'd like to discuss.

Thanks and I hope all is well!

Paula

Paula Sime
Senior Project Manager
Cardno ERI

601 North McDowell Blvd., Petaluma, CA 94954

Phone: 707 766 2000 **Direct:** 707 766 2026 **Mobile:** 707 338 8012 **Fax:** 707 789 0414

Email: paula.sime@cardno.com

Cardno ERI Web: www.cardnoeri.com

Cardno Web: www.cardno.com

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Paula Sime

From: Jakub, Barbara, Env. Health <barbara.jakub@acgov.org>
Sent: Monday, March 12, 2012 4:38 PM
To: Paula Sime
Subject: RE: RO#445 Deadline Extension Request

Paula,

Your request for an extension to obtain access is acceptable. If you are unable to obtain access, please let me know and I will be happy to write a letter to try to help. The extension is approved until June 15, 2012.

Regards,
Barb Jakub

From: Paula Sime [mailto:paula.sime@cardno.com]
Sent: Monday, March 12, 2012 3:17 PM
To: Jakub, Barbara, Env. Health
Subject: RO#445 Deadline Extension Request



Hi Barb,

We are still working on negotiating access to the parcel adjacent to Former Mobil Service Station 99105 (station address is 6301 San Pablo Avenue, Oakland, RO#445). It looks like we will be granted access; however, we need to re-send the agreement to the owners today. I anticipate that we'll have it back by the end of March. With this in mind, I'd like to request extending the due date for the FS/CAP report from March 16th to June 15th. That will give us time to permit, schedule, drill, and evaluate the results and incorporate them into the FS/CAP. Will that be acceptable?

Thank you,
Paula

Paula Sime

Senior Project Manager
Cardno ERI

601 North McDowell Blvd., Petaluma, CA 94954

Phone: 707 766 2000 **Direct:** 707 766 2026 **Mobile:** 707 338 8012 **Fax:** 707 789 0414

Email: paula.sime@cardno.com

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Nadya Vicente

From: Rebekah Westrup
Sent: Thursday, July 12, 2012 11:09 AM
To: Nadya Vicente
Subject: FW: Former Mobil 99105 - 6301 San Pable Avenue, Oakland, California RO0000445 SWI and FS/CAP

Here you go.

Rebekah A. Westrup

SR STAFF GEOLOGIST
CARDNO ERI

Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-338-8555
Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA
Email rebekah.westrup@cardno.com Web www.cardno.com www.cardnoeri.com

From: Jakub, Barbara, Env. Health [<mailto:barbara.jakub@acgov.org>]
Sent: Thursday, July 12, 2012 8:15 AM
To: Rebekah Westrup
Subject: RE: Former Mobil 99105 - 6301 San Pable Avenue, Oakland, California RO0000445 SWI and FS/CAP

Your request for an extension due to access issues is approved. The SWI is due July 31 with the FS/CAP due 60 days after.

Regards,
Barb Jakub

From: Rebekah Westrup [<mailto:rebekah.westrup@cardno.com>]
Sent: Wednesday, July 11, 2012 4:29 PM
To: Jakub, Barbara, Env. Health
Subject: RE: Former Mobil 99105 - 6301 San Pable Avenue, Oakland, California RO0000445 SWI and FS/CAP

So what should we do? I think when we started getting extensions because of the access issue we meant to extend the SWI due date and by extension the FS/CAP. I can have the results report to go by the end of the month. Will that be okay.

Rebekah A. Westrup

SR STAFF GEOLOGIST
CARDNO ERI

Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-338-8555
Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA
Email rebekah.westrup@cardno.com Web www.cardno.com www.cardnoeri.com

From: Jakub, Barbara, Env. Health [<mailto:barbara.jakub@atgov.org>]
Sent: Wednesday, July 11, 2012 4:30 PM
To: Rebekah Westrup
Subject: RE: Former Mobil 99105 - 6301 San Pable Avenue, Oakland, California RO0000445 SWI and FS/CAP

Well it looks like your SWI is late from the two extension approvals in our files. So in theory the FS is late as well.

From: Rebekah Westrup [<mailto:rebekah.westrup@cardno.com>]
Sent: Wednesday, July 11, 2012 3:46 PM
To: Jakub, Barbara, Env. Health
Subject: Former Mobil 99105 - 6301 San Pable Avenue, Oakland, California RO0000445 SWI and FS/CAP

Barbara:

We are putting together the results of the Soil/Water and Soil Vapor sampling event that we completed at the subject site, after obtaining offsite access. When I was reviewing the correspondence I noted that the FS/CAP is due 60 days after the SWI assessment report. But when we were trading emails we referenced the FS/CAP as due at the end of this month. Can you confirm that the SWI assessment report is due on July 31st with the FS/CAP due 60 later.

Rebekah A. Westrup
SR STAFF GEOLOGIST
CARDNO ERI



Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-338-8555
Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA
Email rebekah.westrup@cardno.com Web www.cardno.com www.cardnoeri.com

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APPENDIX B

FIELD PROTOCOL

Cardno ERI
Soil Boring and Well Installation
Field Protocol

Preliminary Activities

Prior to the onset of field activities at the site, Cardno ERI obtains the appropriate permit(s) from the governing agency(s). Advance notification is made as required by the agency(s) prior to the start of work. Cardno ERI marks the borehole locations and contacts the local one call utility locating service at least 48 hours prior to the start of work to mark buried utilities. Borehole locations may also be checked for buried utilities by a private geophysical surveyor. Prior to drilling, the borehole location is cleared in accordance with the client's procedures. Fieldwork is conducted under the advisement of a registered professional geologist and in accordance with an updated site-specific safety plan prepared for the project, which is available at the job site during field activities.

Drilling and Soil Sampling Procedures

Cardno ERI contracts a licensed driller to advance the boring and collect soil samples. The specific drilling method (e.g., hollow-stem auger, direct push method, or sonic drilling), sampling method [e.g., core barrel or California-modified split spoon sampler (CMSSS)] and sampling depths are documented on the boring log and may be specified in a work plan. Soil samples are typically collected at the capillary fringe and at 5-foot intervals to the total depth of the boring. To determine the depth of the capillary fringe prior to drilling, the static groundwater level is measured with a water level indicator in the closest monitoring well to the boring location, if available.

The borehole is advanced to just above the desired sampling depth. For CMSSSs, the sampler is placed inside the auger and driven to a depth of 18 inches past the bit of the auger. The sampler is driven into the soil with a standard 140-pound hammer repeatedly dropped from a height of 30 inches onto the sampler. The number of blows required to drive the sampler each 6-inch increment is recorded on the boring log. For core samplers (e.g., direct push), the core is driven 18 inches using the rig apparatus.

Soil samples are preserved in the metal or plastic sleeve used with the CMSSS or core sampler, in glass jars or other manner required by the local regulatory agency (e.g., Environmental Protection Agency Method 5035). Sleeves are removed from the sample barrel, and the lowermost sample sleeve is immediately sealed with Teflon™ tape, capped, labeled, placed in a cooler chilled to 4° Celsius and transported to a state-certified laboratory. The samples are transferred under chain-of-custody (COC) protocol.

Field Screening Procedures

Cardno ERI places the soil from the middle of the sampling interval into a plastic re-sealable bag. The bag is placed away from direct sunlight for a period of time which allows volatilization of chemical constituents, after which the tip of a photo-ionization detector (PID) or similar device is inserted through the plastic bag to measure organic vapor concentrations in the headspace. The PID measurement is recorded on the boring log. At a minimum, the PID or other device is calibrated on a daily basis in accordance with manufacturer's specifications using a hexane or isobutylene standard. The calibration gas and concentration are recorded on a calibration log. Instruments such as the PID are useful for evaluating relative concentrations of volatilized hydrocarbons, but they do not measure the concentration of petroleum hydrocarbons in the soil matrix with the same precision as laboratory analysis. Cardno ERI trained personnel describe the soil in the bag according to the Unified Soil Classification System and record the description on the boring log, which is included in the final report.

Air Monitoring Procedures

Cardno ERI performs a field evaluation for volatile hydrocarbon concentrations in the breathing zone using a calibrated photo-ionization detector or lower explosive level meter.

Groundwater Sampling

A groundwater sample, if desired, is collected from the boring by using Hydropunch™ sampling technology or installing a well in the borehole. In the case of using Hydropunch™ technology, after collecting the capillary fringe soil sample, the boring is advanced to the top of the soil/groundwater interface and a sampling probe is pushed to approximately 2 feet below the top of the static water level. The probe is opened by partially withdrawing it and thereby exposing the screen. A new or decontaminated bailer is used to collect a water sample from the probe. The water sample is then emptied into laboratory-supplied containers constructed of the correct material and with the correct volume and preservative to comply with the proposed laboratory test. The container is slowly filled with the retrieved water sample until no headspace remains and then promptly sealed with a Teflon-lined cap, checked for the presence of bubbles, labeled, entered onto a COC record and placed in chilled storage at 4° Celsius. Laboratory-supplied trip blanks accompany the water samples as a quality assurance/quality control procedure. Equipment blanks may be collected as required. The samples are kept in chilled storage and transported under COC protocol to a client-approved, state-certified laboratory for analysis.

Backfilling of Soil Boring

If a well is not installed, the boring is backfilled from total depth to approximately 5 feet below ground surface (bgs) with either neat cement or bentonite grout using a tremie pipe and either the boring is backfilled from 5 feet bgs to approximately 1 foot bgs with hydrated bentonite chips or backfill is continued to just below grade with neat cement grout. The borehole is completed to surface grade with material that best matches existing surface conditions and meets local agency requirements. Site-specific backfilling details are shown on the respective boring log.

Well Construction

A well (if constructed) is completed using materials documented on the boring log or specified in a work plan. The well is constructed with slotted casing across the desired groundwater sampling depth(s) and completed with blank casing to within 6 inches of surface grade. No further construction is conducted on temporary wells. For permanent wells, the annular space of the well is backfilled with Monterey sand from the total depth to approximately 2 feet above the top of the screened casing. A hydrated granular bentonite seal is placed on top of the sand filter pack. Grout may be placed on top of the bentonite seal to the desired depth using a tremie pipe. The well may be completed to surface grade with a 1-foot thick concrete pad. A traffic-rated well vault and locking cap for the well casing may be installed to protect against surface-water infiltration and unauthorized entry. Site-specific well construction details including type of well, well depth, casing diameter, slot size, length of screen interval and sand size are documented on the boring log or specified in the work plan.

Well Development and Sampling

If a permanent groundwater monitoring well is installed, the grout is allowed to cure a minimum of 48 hours before development. Cardno ERI personnel or a contracted driller use a submersible pump or surge block to develop the newly installed well. Prior to development, the pump is decontaminated by allowing it to run and re-circulate while immersed in a non-phosphate solution followed by successive immersions in potable water and de-ionized water baths. The well is developed until sufficient well casing volumes are removed so that turbidity is within allowable limits and pH, conductivity and temperature levels stabilize in the purge water. The volume of groundwater extracted is recorded on a log.

Following development, groundwater within the well is allowed to recharge until at least 80% of the drawdown is recovered. A new or decontaminated bailer is slowly lowered past the air/water interface in the well, and a water sample is collected and checked for the presence of non-aqueous phase liquid, sheen or emulsions. The water sample is then emptied into laboratory-supplied containers as discussed above.

Surveying

If required, wells are surveyed by a licensed land surveyor relative to an established benchmark of known elevation above mean sea level to an accuracy of +/- 0.01 foot. The casing is notched or marked on one side to identify a consistent surveying and measuring point.

Decontamination Procedures

Cardno ERI or the contracted driller decontaminates soil and water sampling equipment between each sampling event with a non-phosphate solution, followed by a minimum of two tap water rinses. De-ionized water may be used for the final rinse. Downhole drilling equipment is steam-cleaned prior to drilling the borehole and at completion of the borehole.

Waste Treatment and Soil Disposal

Soil cuttings generated from the drilling or sampling are stored on site in labeled, Department of Transportation-approved, 55-gallon drums or other appropriate storage container. The soil is removed from the site and transported under manifest to a client- and regulatory-approved facility for recycling or disposal. Decontamination fluids and purge water from well development and sampling activities, if conducted, are stored on site in labeled, regulatory-approved storage containers. Fluids are subsequently transported under manifest to a client- and regulatory-approved facility for disposal or treated with a permitted mobile or fixed-base carbon treatment system.

Cardno ERI
Soil Vapor Sampling Well Installation and Sampling Field Protocol

Preliminary Activities

Prior to the onset of field activities at the site, Cardno ERI obtains the appropriate permit(s) from the governing agency(s). Advance notification is made as required by the agency(s) prior to the start of work. Cardno ERI marks the borehole locations and contacts the local one call utility locating service at least 48 hours prior to the start of work to mark buried utilities. Borehole locations may also be checked for buried utilities by a private geophysical surveyor. Prior to drilling, the borehole location is cleared in accordance with the client's procedures. Fieldwork is conducted under the advisement of a registered professional geologist and in accordance with an updated site-specific safety plan prepared for the project, which is available at the job site during field activities.

Well Construction

The borehole is advanced to the desired depth using either a direct-push rig, hand auger, or air vacuum rig. Lithologic conditions are recorded on a boring log during borehole advancement, and select soil matrix sampling may be conducted based on soil characteristics.

Each soil vapor sampling (SVS) well is constructed using inert screen material attached to $\frac{1}{8}$ - to $\frac{1}{4}$ -inch outer diameter inert tubing. A gas-tight vacuum fitting or valve is attached to the top of each length of tubing using a female compression fitting. Each screen is set within a minimum of a 12-inch thick appropriately sized sand pack, with a minimum of 3 inches of sand pack above the top of the screen. A minimum of 4 inches of dry granular bentonite is set above each screen and associated sand pack. In SVS wells with multiple and separate casings and screens, the annular space between the top of the dry granular bentonite above the deep screen and the bottom of the sand pack associated with the shallow screen is sealed with a minimum of 18 inches of hydrated bentonite. The remainder of the annular space of the well is sealed with hydrated bentonite to 1 foot below ground surface. Wellheads are finished with traffic-rated well boxes set in concrete flush with the surrounding grade. No glues, chemical cements, or solvents are used in well construction.

A boring log is completed with the construction details for each well, including the materials of construction, depth of the borehole, screen length, and annular seal thickness.

Soil Vapor Sampling

Samples are collected using a soil vapor purging and sampling manifold consisting of a flow regulator, vacuum gauges, vacuum pump, shroud, and laboratory-prepared, gas-tight, opaque containers such as Summa™ canisters. Samples may also be collected using a syringe and analyzed by a mobile laboratory. Prior to use, Summa™ canisters are checked to ensure they are under the laboratory induced vacuum between 31 and 25 inches of mercury (in. Hg).

New inert tubing is used to purge and sample each well. Prior to purging and sampling each SVS well, the sampling manifold is connected to the gas-tight vacuum fitting or valve at the wellhead, and the downstream tubing and fittings are vacuum tested at approximately 24 to 28 in. Hg. Purging and sampling are conducted only on SVS wells when the tubing and fittings hold the applied vacuum for 5 minutes per vacuum gauge reading.

When required, Cardno ERI conducts a purge volume versus constituent concentration test on at least one SVS well prior to purging and sampling activities. The purge volume test well is selected based on the location of the anticipated source of chemical constituents at the site and on the location of anticipated maximum soil vapor concentrations based on lithologic conditions. If the SVS well has been in place for more than 1 week, it is assumed that soil vapor in the sand pack has equilibrated with the surrounding soil, and only the screen and tubing volumes are included in the purge volume calculation. If the SVS well has been in place for less than 1 week, the volume of the sand pack around the screen is included in the purge volume calculation. A photo-ionization detector (PID) or on-site mobile laboratory is used to evaluate concentrations of chemical constituents in the vapor stream after 1, 3, and 10 volumes of vapor have been purged from the SVS well. Purging is conducted at a rate of 100 to 200 milliliters per minute (ml/min). The purge volume exhibiting the highest concentration is the volume of vapor purged from each SVS well prior to sampling. If the three separate purge volumes produce equal concentrations a default of 3 purge volumes is extracted prior to sampling.

Prior to sampling, a helium leak test is performed at each SVS well, including a summa canister and its fittings, to check for leaks in the SVS annulus. To assess the potential for leaks in the SVS well annulus, a shroud is placed over the SVS well and summa canister and the shroud is filled with a measured amount of helium. Helium screening is performed in the field by drawing soil gas into a Tedlar bag via a lung-box and screening the contents of the Tedlar bag with a helium meter. The concentration of helium in the sample divided by the concentration of helium in the shroud provides a measure of the proportion of the sample attributable to leakage. A leak that comprises less than 5% of the sample is insignificant. Helium screening is also performed using laboratory analysis of the contents of the summa canister collected under the shroud. Sampling is conducted at approximately the same rate of purging, at 100 to 200 ml/min. Soil vapor samples are submitted under chain-of-custody protocol for the specified laboratory analyses.

At a minimum, weather conditions (temperature, barometric pressure and precipitation), the sampling flow rate, the purge volume, the helium leak detection percentage results, the sample canister identification number, the method of sample collection, and the vacuum of the sampling canister at the start and end of sample collection (if applicable) are recorded on a log for each SVS well purged and sampled.

Decontamination Procedures

If soil samples are collected, Cardno ERI or the contracted driller decontaminates the soil sampling equipment between each sampling interval using a non-phosphate solution, followed by a minimum of two tap water rinses.

De-ionized water may be used for the final rinse. Downhole drilling equipment is steam-cleaned or triple-rinsed prior to advancing each borehole.

Waste Treatment and Disposal

Soil cuttings generated from the well installation are stored on site in labeled, Department of Transportation-approved, 55-gallon drums or other appropriate storage container. The soil is removed from the site and transported under manifest to a client- and regulatory-approved facility for recycling or disposal. Decontamination water is stored on site in labeled, regulatory-approved storage containers, and is subsequently transported under manifest to a client- and regulatory-approved facility for disposal or treated with a permitted mobile or fixed-base carbon treatment system.

APPENDIX C

ACCESS AGREEMENT



Shaping the Future

Cardno ERI
License A/C10-611383

601 N McDowell Boulevard
Petaluma, CA 94954-2312
USA

Phone 707 766 2000
Toll-free 800 382 9105
Fax 707 769 0414
www.cardno.com

www.cardnoeri.com

November 30, 2011
Cardno ERI 2783.L01

Pastor Elder Madison Smith
St. Paul Primitive Baptist Church
1124 63rd Street
Oakland, California 94608

SUBJECT Access Agreement to Install Soil Borings and Soil Vapor Sampling Wells
Former Mobil Service Station 99105
6301 San Pablo Avenue, Oakland, California 94608

To Whom It May Concern:

At the request of ExxonMobil Environmental Services (EMES), on behalf of ExxonMobil Oil Corporation, Cardno ERI requests authorization to access your property at 1124 63rd Street, Oakland, California to install three soil borings and three soil vapor sampling (SVS) wells in conjunction with the environmental investigation at Former Mobil Service Station 99105, located at 6301 San Pablo Avenue, Oakland, California. The work is being directed by the Alameda County Health Care Services Agency, Environmental Health Department (ACEH).

Cardno ERI anticipates that it will take approximately two days for the installation of the wells and borings. The location of the proposed soil borings and SVS wells are shown on the attached Generalized Site Plan; however, the final placement of the wells may change to avoid conflicts with existing underground utilities. Soil and groundwater generated during field activities will be stored at Former Mobil Service Station 99105 pending characterization and disposal.

Cardno ERI will need access to your property to perform the following:

- Survey the surrounding area to locate and avoid underground utilities.
- Install three soil borings and three SVS wells.
- Collect samples from and monitor the SVS wells a maximum of once per quarter for the duration of environmental investigation.

Upon completion of environmental investigation and with approval from the County, Cardno ERI will destroy the wells and refinish the surface to match the surrounding area.

Cardno ERI and EMES greatly appreciate your cooperation in this matter. Cardno ERI has enclosed a copy of its Certificate of Liability Insurance and Contractor License.

Please sign both copies of the agreement on the designated line if this agreement is acceptable and return one copy to Cardno ERI in the envelope provided. The other copy is for your records.

November 30, 2011
Cardno ERI 2783.L01 Former Mobil Service Station 99105, 8301 San Pablo Avenue, Oakland, California

Please contact Ms. Paula Sime, Cardno ERI's project manager for this site, at paula.sime@cardno.com or at (707) 766-2000 with any questions or comments regarding this access agreement.

Sincerely,

 SCANNED
IMAGE

David R. Daniels
Senior Staff Geologist
for Cardno ERI
707 766 2000
Email: david.daniels@cardno.com

 SCANNED
IMAGE

Paula Sime
Senior Project Manager
for Cardno ERI
(916) 692-3130
Email: paula.sime@cardno.com

Enclosures: Generalized Site Plan
Certificate of Liability Insurance
Contractors License

Signature:


(Owner or Authorized Representative of Property)

5-21-12
Date


Mr. Keith A. Romstad
Division Manager, Cardno ERI

11/30/11
Date

cc: Ms. Jennifer C. Sedlachek, ExxonMobil Environmental Services
Ms. Barbara Jakub, Alameda County Health Care Services Agency

APPENDIX D

PERMITS

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 06/06/2012 By jamesy

Permit Numbers: W2012-0379 to W2012-0380
Permits Valid from 06/18/2012 to 06/22/2012

Application Id:	1338502210790	City of Project Site: Oakland
Site Location:	6301 San Pablo Ave. (Exxon Mobile 99105), Oakland, CA	
Project Start Date:	06/18/2012	Completion Date: 06/22/2012
Assigned Inspector:	Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org	

Applicant:	Cardno ERI - Nadya Vicente 601 N McDowell Bl, Petaluma, CA 94954	Phone: 707-766-2000
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Property Owner:	Pastor Elder Madison Smith St Paul Primitive Baptish Church 1124 63rd St, Oakland, CA 94608	Phone: --
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Client:	Exxon Mobil 4096 Piedmont Ave #194, Oakland, CA 94611	Phone: 510-547-8196
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	Total Due:	\$530.00
Receipt Number: WR2012-0170	Total Amount Paid:	\$530.00
Payer Name : Environmental Resolutions Inc.	Paid By: CHECK	PAID IN FULL

Works Requesting Permits:

Well Construction-Vapor monitoring well-Vapor monitoring well - 3 Wells
Driller: Woodward - Lic #: 710079 - Method: Hand

Work Total: \$265.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2012-0379	06/06/2012	09/16/2012	SVS1	4.00 in.	0.25 in.	4.00 ft	5.00 ft
W2012-0379	06/06/2012	09/16/2012	SVS2	4.00 in.	0.25 in.	4.00 ft	5.00 ft
W2012-0379	06/06/2012	09/16/2012	SVS3	4.00 in.	0.25 in.	4.00 ft	5.00 ft

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days, including permit number and site map.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters

Alameda County Public Works Agency - Water Resources Well Permit

generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

5. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
6. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.
7. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
8. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
9. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
11. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

Borehole(s) for Investigation-Environmental/Monitorinig Study - 3 Boreholes
Driller: Woodward - Lic #: 710079 - Method: Hand

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2012-0380	06/06/2012	09/16/2012	3	4.00 in.	11.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will

Alameda County Public Works Agency - Water Resources Well Permit

need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

APPENDIX E

BORING LOGS



BORING LOG B8

(Page 1 of 1)

Date Drilled : 6/18/2012
 Drilling Co. : Woodward Drilling
 Drilling Method : Hand Auger
 Sampling Method : Hand Auger
 Borehole Diameter : 3.25"
 Casing Diameter : NA
 Location (N-S) : 37.8459522
 Location (E-W) : -122.2852936
 Total Depth : 9.5' bgs
 GW encountered : 8.5' bgs

Project No. : Former Mobil Service Station 99105
 Site : 6301 San Pablo Ave, Oakland, California
 Logged By: : Nadya M. Vicente
 Reviewed By: : David R. Daniels, P.G. 8737
 Signature : *[Signature]*

Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	ASTM	Sample Condition	Water Levels	Boring: B8
						<input checked="" type="checkbox"/> No Recovery <input type="checkbox"/> Sampled Interval <input type="checkbox"/> Described Sample <input checked="" type="checkbox"/> Preserved Sample	▼ 7.4' bgs on 6/19/2012 ▽ 8.5' bgs during drilling	
DESCRIPTION								
0						2" Topsoil / Landscaping Material		
		0.0			CL	Sandy CLAY: dark brown, moist to wet, low plasticity, fine-grained sand, rootlets (60, 0, 40, 0)		
		0.0			CH	Sandy CLAY: light graybrown, moist, medium to high plasticity, fine-grained sand (60, 0, 40, 0)		
5		0.0			CL	Sandy CLAY: light yellow, damp, low plasticity, fine-to medium-grained sand (55, 0, 45, 0)		
		0.0			CL	Sandy CLAY: light yellow with green mottling, moist, low plasticity, fine-to medium-grained sand, fine-grained subround gravel up to 0.25" in diameter (50, 0, 40, 10)		
		0.0			SC	Clayey SAND with Gravel: fine-to medium-grained, yellow brown, saturated, poorly graded, subround gravel up to 1.5" diameter (25, 0, 55, 20)		
10						TD = 9.5 feet bgs Free groundwater encountered at 8.5 feet bgs.		
15								
20								



Grout



BORING LOG SVS1

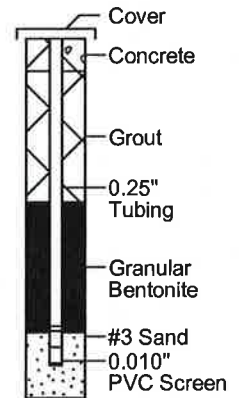
(Page 1 of 1)

Date Drilled : 6/18/2012
 Drilling Co. : Woodward Drilling
 Drilling Method : Hand Auger
 Sampling Method : Hand Auger
 Borehole Diameter : 3.25"
 Casing Diameter : 0.25"
 Location (N-S) : 37.8455955
 Location (E-W) : -122.2851633
 Total Depth : 5.5' bgs
 GW encountered : None

Project No. : Former Mobil Service Station 99105
 Site: : 6301 San Pablo Ave, Oakland, California
 Logged By: : Nadya M. Vicente
 Reviewed By: : David R. Daniels, P.E. 8737
 Signature : *[Signature]*

Depth (ft)	Blow Count	OVM/PIID (ppmv)	Sample	Column	ASTM	Sample Condition	Water Levels	DESCRIPTION
						<input checked="" type="checkbox"/> No Recovery <input type="checkbox"/> Sampled Interval <input type="checkbox"/> Described Sample <input type="checkbox"/> Preserved Sample	▼ NA ▽ NA	
0								4" Concrete
0 - 2.5					CL			Sandy CLAY: dark brown, moist to wet, low plasticity, fine-grained sand, rootlets (60, 0, 40, 0)
2.5 - 4.5					CH			Sandy CLAY: light graybrown, moist, medium to high plasticity, fine-grained sand (60, 0, 40, 0)
4.5 - 5.5					CL			Sandy CLAY: light yellow, damp, low plasticity, fine-to medium-grained sand (70, 10, 20, 0)
5.5					CL			Sandy CLAY: light yellow with green and dark brown, fine-to medium-grained sand, subround gravel up to 0.25" diameter, rootlets (50, 0, 40, 10) TD = 5.5 feet bgs No free groundwater encountered.

Well: SVS1





BORING LOG SVS2

(Page 1 of 1)

Date Drilled : 6/18/2012
 Drilling Co. : Woodward Drilling
 Drilling Method : Hand Auger
 Sampling Method : Hand Auger
 Borehole Diameter : 3.25"
 Casing Diameter : 0.25"
 Location (N-S) : 37.8457949
 Location (E-W) : -122.2852363
 Total Depth : 5.5' bgs
 GW encountered : None

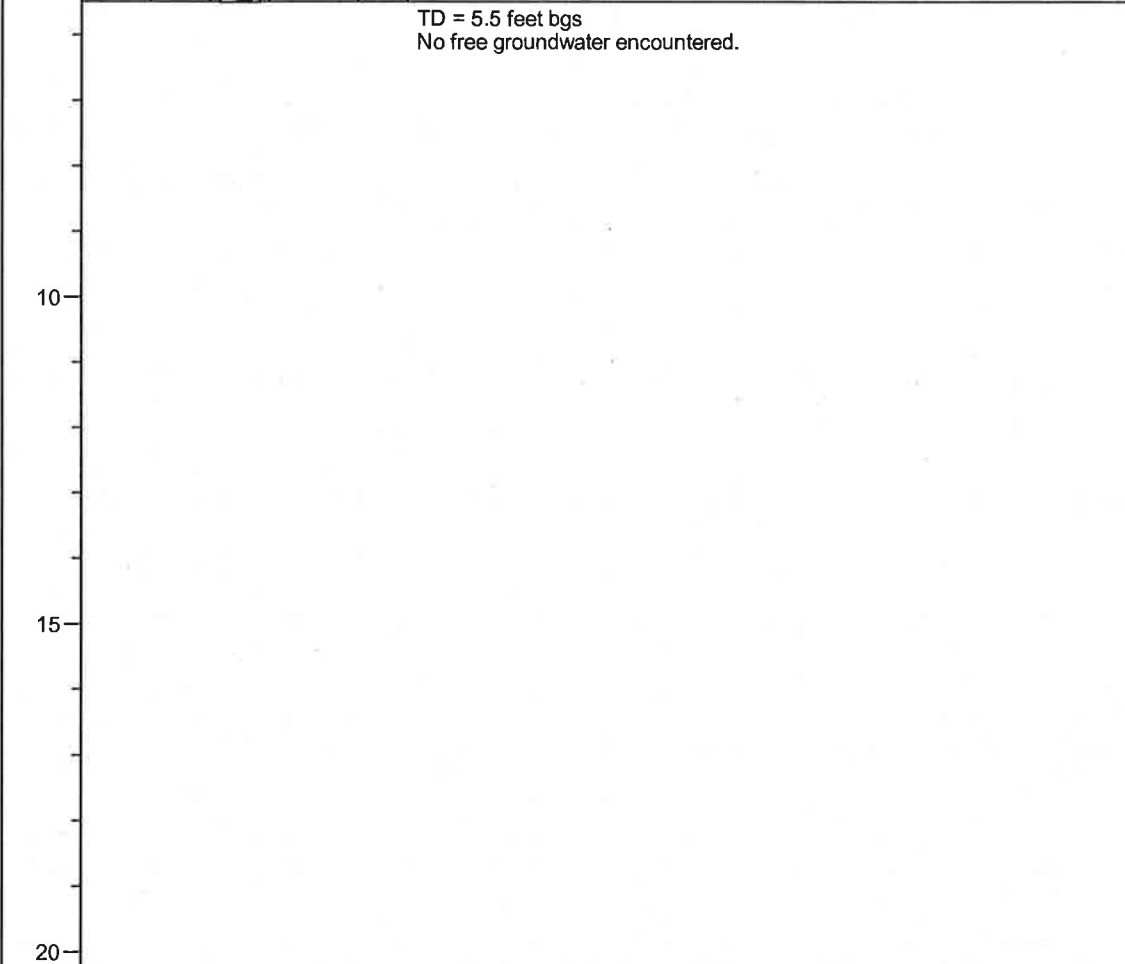
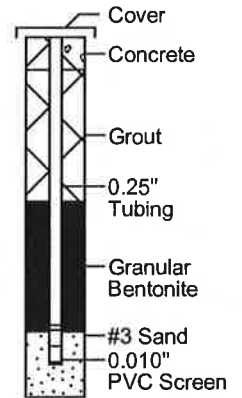
Project No. : Former Mobil Service Station 99105
 Site : 6301 San Pablo Ave, Oakland, California
 Logged By: : Nadya M. Vicente
 Reviewed By: : David R. Daniels, P.G.8737
 Signature : *[Signature]*

Depth (ft)	Blow Count	OVM/PIID (ppmv)	Sample	Column	ASTM	Sample Condition	Water Levels
						<input checked="" type="checkbox"/> No Recovery <input type="checkbox"/> Sampled Interval <input type="checkbox"/> Described Sample <input type="checkbox"/> Preserved Sample	▼ NA ▽ NA

Well: SVS2

DESCRIPTION						
0						1" Topsoil / Landscaping Material
					CL	Sandy CLAY: dark brown, moist to wet, low plasticity, fine-grained sand, rootlets (60, 10, 30, 0)
					CH	CLAY with Sand: light graybrown, moist, medium to high plasticity, fine-grained sand (70, 10, 20, 0)
5					CL	Sandy CLAY: light yellow, damp, low plasticity, fine-to medium-grained sand (55, 0, 45, 0)

TD = 5.5 feet bgs
 No free groundwater encountered.





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Shaping the Future

BORING LOG SVS 3

(Page 1 of 1)

Date Drilled : 6/18/2012
 Drilling Co. : Woodward Drilling
 Drilling Method : Hand Auger
 Sampling Method : Hand Auger
 Borehole Diameter : 3.25"
 Casing Diameter : 0.25"
 Location (N-S) : 37.8459556
 Location (E-W) : -122.2852938
 Total Depth : 5.5' bgs
 GW encountered : None

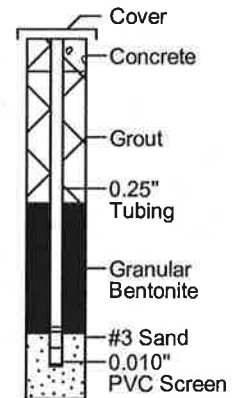
Project No. : Former Mobil Service Station 99105
 Site : 6301 San Pablo Ave, Oakland, California
 Logged By: : Nadya M. Vicente
 Reviewed By: : David R. Daniels, P.G.8737
 Signature :

Depth (ft)	Blow Count	OVM/PIID (ppmv)	Sample	Column	ASTM	Sample Condition	Water Levels
						<input checked="" type="checkbox"/> No Recovery <input type="checkbox"/> Sampled Interval <input checked="" type="checkbox"/> Described Sample <input type="checkbox"/> Preserved Sample	▼ NA ▽ NA

Well: SVS 3

DESCRIPTION						
0						2" Topsoil / Landscaping Material Sandy CLAY: dark brown, moist to wet, low plasticity, fine-grained sand, rootlets (60, 0, 40, 0) CL
						Sandy CLAY: light graybrown, moist, medium to high plasticity, fine-grained sand (60, 0, 40, 0) CH
5						Sandy CLAY: light yellow, moist, low plasticity, fine-to medium-grained sand (70, 10, 20, 0) CL

TD = 5.5 feet bgs
 No free groundwater encountered.



10

15

20

APPENDIX F

SOIL VAPOR FIELD DATA FORMS

Former Mobil Service Station 99105
6301 San Pablo Ave., Oakland CA

SVS Point Sampling

SVS Point SVS 1

Date 6-25-12
Sampler NMV

520 018

a	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test	1635	1640	25/25	—	—
(2nd Vac Test)					
Purge	1642	1700	—	100 ^{cc} /min	20/0
Sample	1701	1707	30/5	—	20%

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

b	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

Duplicate	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 7 minutes; 3 purge volumes = 21 minutes; 7 purge volumes = 49 minutes

Former Mobil Service Station 99105
 6301 San Pablo Ave., Oakland CA

SVS Point Sampling

SVS Point SVS 2

Date 6-25-12
 Sampler NMV

a	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test	1535	1640	25/25		
(2nd Vac Test)					
Purge	1544	1602			
Sample	1603	1608	30/5		20%

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

b	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

Duplicate	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 7 minutes; 3 purge volumes = 21 minutes; 7 purge volumes = 49 minutes

Former Mobil Service Station 99105
6301 San Pablo Ave., Oakland CA

SVS Point Sampling

SVS Point SVS 3

Date 6-25-12
Sampler NMV

a	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test	1423	1428			
(2nd Vac Test)					
Purge	1452	1510	—	100 cc/min	20 / 0
Sample	1512	1518	30/5	—	20%

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

b	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

Duplicate	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 7 minutes; 3 purge volumes = 21 minutes; 7 purge volumes = 49 minutes

Former Mobil Service Station 99105
6301 San Pablo Ave., Oakland CA

SVS Point Sampling

SVS Point

VW1

Date
Sampler

6-26-12

MMW

a	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test	1015	1020	26/26		
(2nd Vac Test)					
Purge	1020	1038	—	100 cc/min	20/0
Sample	1040	1100	30/15	—	20%

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

b	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

Duplicate	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 7 minutes; 3 purge volumes = 21 minutes; 7 purge volumes = 49 minutes

Former Mobil Service Station 99105
 6301 San Pablo Ave., Oakland CA

SVS Point Sampling

SVS Point VW2

Date 6-26-12
 Sampler MMW

SLC129

a	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test	0800	0805	25/25		
(2nd Vac Test)					
Purge	0806	0824	-	100 cc/min	20/0
Sample	0825	0846	30/5		20 1/2

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

b	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

Duplicate	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 7 minutes; 3 purge volumes = 21 minutes; 7 purge volumes = 49 minutes

Former Mobil Service Station 99105
 6301 San Pablo Ave., Oakland CA

SVS Point Sampling

SVS Point VW 3

Date 3-26-12
 Sampler NMM

LC179

a	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test	0853	0858	24/29		
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

b	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

Duplicate	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 7 minutes; 3 purge volumes = 21 minutes; 7 purge volumes = 49 minutes

Former Mobil Service Station 99105
6301 San Pablo Ave., Oakland CA

SVS Point Sampling

SVS Point VW4

Date 6-26-12
Sampler NMV

LC 170

a	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test	1250	1255	25/25		
(2nd Vac Test)					
Purge	1255	1313	—	100 cc/min	10/2.8%
Sample	1314	1319	30/5	—	20%

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

b	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

LC 285

Duplicate	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample	1320	1322		20%	

1 purge volume = 7 minutes; 3 purge volumes = 21 minutes; 7 purge volumes = 49 minutes

Former Mobil Service Station 99105
6301 San Pablo Ave., Oakland CA

SVS Point Sampling

SVS Point VW5

Date 6-26-12
Sampler NMIV

LC-353

a	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test	1200	1205	25/25		
(2nd Vac Test)					
Purge	1205	1218		100 cc/min	20/5600 ppm
Sample	1219	1226	30/5		20'

1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

b	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

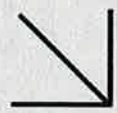
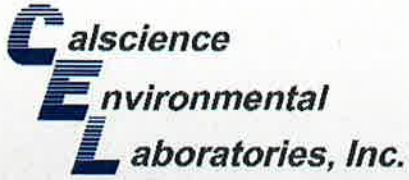
1 purge volume = 6 minutes; 3 purge volumes = 8 minutes; 7 purge volumes = 42 minutes

Duplicate	Start	End	Inches Hg	Flow Setting	He (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

1 purge volume = 7 minutes; 3 purge volumes = 21 minutes; 7 purge volumes = 49 minutes

APPENDIX G

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY RECORDS



CALSCIENCE

WORK ORDER NUMBER: 12-06-1995

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno ERI

Client Project Name: ExxonMobil 99105/022783C

Attention: Rebekah Westrup
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Approved for release on 07/6/2012 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: 12-06-1995

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

Date Received: 06/29/12
 Work Order No: 12-06-1995
 Preparation: N/A
 Method: ASTM D-1946
 Units: %v

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVS1	12-06-1995-1-A	06/25/12 17:07	Air	GC 34	N/A	07/02/12 13:32	120702L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1	U	Oxygen + Argon	11.0	0.500	1	
Carbon Dioxide	0.817	0.500	1						

SVS2	12-06-1995-2-A	06/25/12 16:08	Air	GC 34	N/A	06/30/12 16:21	120630L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1	U	Oxygen + Argon	15.5	0.500	1	
Carbon Dioxide	3.27	0.500	1						

SVS3	12-06-1995-3-A	06/25/12 15:18	Air	GC 34	N/A	06/30/12 17:19	120630L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1	U	Oxygen + Argon	20.3	0.500	1	
Carbon Dioxide	1.69	0.500	1						

VW1	12-06-1995-4-A	06/26/12 11:00	Air	GC 34	N/A	06/30/12 18:45	120630L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	0.514	0.500	1		Oxygen + Argon	7.76	0.500	1	
Carbon Dioxide	11.2	0.500	1						

VW2	12-06-1995-5-A	06/26/12 08:46	Air	GC 34	N/A	06/30/12 19:40	120630L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1	U	Oxygen + Argon	16.9	0.500	1	
Carbon Dioxide	4.28	0.500	1						

VW4	12-06-1995-6-A	06/26/12 13:19	Air	GC 34	N/A	06/30/12 20:10	120630L01
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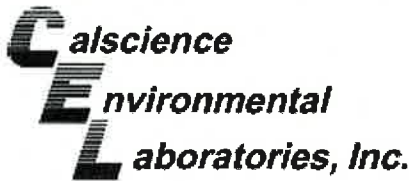
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	40.4	0.500	1		Oxygen + Argon	2.27	0.500	1	
Carbon Dioxide	18.0	0.500	1						

VW4-Duplicate	12-06-1995-7-A	06/26/12 13:22	Air	GC 34	N/A	06/30/12 20:42	120630L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	1.36	0.500	1		Oxygen + Argon	21.6	0.500	1	
Carbon Dioxide	ND	0.500	1	U					

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: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: ExxonMobil 99105/022783C

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW5	12-06-1995-8-A	06/26/12 12:26	Air	GC 34	N/A	06/30/12 21:18	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	5.36	0.500	1		Oxygen + Argon	14.6	0.500	1	
Carbon Dioxide	7.95	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Trip Blank	12-06-1995-9-a	06/25/12 00:00	Air	GC 34	N/A	06/30/12 14:34	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1	U	Oxygen + Argon	0.527	0.500	1	
Carbon Dioxide	ND	0.500	1	U					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Trip Blank	12-06-1995-10-a	06/26/12 00:00	Air	GC 34	N/A	06/30/12 15:46	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1	U	Oxygen + Argon	0.637	0.500	1	
Carbon Dioxide	ND	0.500	1	U					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-03-002-1,587	N/A	Air	GC 34	N/A	07/02/12 12:19	120702L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1	U	Oxygen + Argon	ND	0.500	1	U
Carbon Dioxide	ND	0.500	1	U					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-03-002-1,588	N/A	Air	GC 34	N/A	06/30/12 12:17	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1	U	Oxygen + Argon	ND	0.500	1	U
Carbon Dioxide	ND	0.500	1	U					

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: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: ASTM D-1946 (M)

Project: ExxonMobil 99105/022783C

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVS1	12-06-1995-1-A	06/25/12 17:07	Air	GC 55	N/A	06/29/12 15:38	120629L01

Parameter	Result	RL	DF	Qual	Units
Helium	0.0107	0.0100	1		%v

SVS2	12-06-1995-2-A	06/25/12 16:08	Air	GC 55	N/A	06/29/12 17:52	120629L01
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Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1	U	%v

SVS3	12-06-1995-3-A	06/25/12 15:18	Air	GC 55	N/A	06/29/12 18:20	120629L01
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Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1	U	%v

VW1	12-06-1995-4-A	06/26/12 11:00	Air	GC 55	N/A	06/29/12 19:05	120629L01
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Parameter	Result	RL	DF	Qual	Units
Helium	0.0688	0.0100	1		%v

VW2	12-06-1995-5-A	06/26/12 08:46	Air	GC 55	N/A	06/29/12 17:26	120629L01
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Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1	U	%v

VW4	12-06-1995-6-A	06/26/12 13:19	Air	GC 55	N/A	06/29/12 19:27	120629L01
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Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1	U	%v

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

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Analytical Report



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

Date Received: 06/29/12
 Work Order No: 12-06-1995
 Preparation: N/A
 Method: ASTM D-1946 (M)

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4-Duplicate	12-06-1995-7-A	06/26/12 13:22	Air	GC 55	N/A	06/29/12 19:50	120629L01

Parameter	Result	RL	DF	Qual	Units
Helium	1.98	0.0100	1		%v

VW5	12-06-1995-8-A	06/26/12 12:26	Air	GC 55	N/A	06/29/12 10:26	120629L01
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Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1	U	%v

Trip Blank	12-06-1995-9-A	06/25/12 00:00	Air	GC 55	N/A	06/29/12 16:26	120629L01
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Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1	U	%v

Trip Blank	12-06-1995-10-A	06/26/12 00:00	Air	GC 55	N/A	06/29/12 16:58	120629L01
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Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1	U	%v

Method Blank	099-12-872-287	N/A	Air	GC 55	N/A	06/29/12 12:59	120629L01
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Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1	U	%v

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

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

Date Received: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: ExxonMobil 99105/022783C

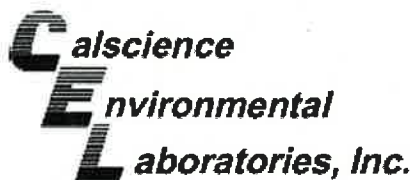
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVS1	12-06-1995-1-A	06/25/12 17:07	Air	GC/MS YY	N/A	07/02/12 15:50	120702L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	18	4.8	1		t-1,3-Dichloropropene	ND	4.5	1	U
Benzene	11	1.6	1		Ethanol	ND	9.4	1	U
Benzyl Chloride	ND	7.8	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U
Bromodichloromethane	ND	3.4	1	U	Ethylbenzene	6.2	2.2	1	
Bromoform	ND	5.2	1	U	4-Ethyltoluene	ND	2.5	1	U
Bromomethane	ND	1.9	1	U	Hexachloro-1,3-Butadiene	ND	16	1	U
2-Butanone	4.8	4.4	1		2-Hexanone	ND	6.1	1	U
Carbon Disulfide	28	6.2	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Carbon Tetrachloride	ND	3.1	1	U	Methylene Chloride	ND	17	1	U
Chlorobenzene	7.0	2.3	1		4-Methyl-2-Pentanone	ND	6.1	1	U
Chloroethane	ND	1.3	1	U	Naphthalene	ND	26	1	U
Chloroform	2.7	2.4	1		Xylenes (total)	26	8.7	1	
Chloromethane	1.1	1.0	1		Styrene	ND	6.4	1	U
Dibromochloromethane	ND	4.3	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
Dichlorodifluoromethane	ND	2.5	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Tetrachloroethene	ND	3.4	1	U
1,1-Dichloroethane	ND	2.0	1	U	Toluene	12	1.9	1	
1,1-Dichloroethene	ND	2.0	1	U	Trichloroethene	ND	2.7	1	U
1,2-Dibromoethane	ND	3.8	1	U	Trichlorofluoromethane	ND	5.6	1	U
Dichlorotetrafluoroethane	ND	14	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	U
1,2-Dichlorobenzene	ND	3.0	1	U	1,1,1-Trichloroethane	ND	2.7	1	U
1,2-Dichloroethane	ND	2.0	1	U	1,1,2-Trichloroethane	ND	2.7	1	U
1,2-Dichloropropane	ND	2.3	1	U	1,3,5-Trimethylbenzene	ND	2.5	1	U
1,3-Dichlorobenzene	ND	3.0	1	U	1,1,2,2-Tetrachloroethane	ND	6.9	1	U
1,4-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trimethylbenzene	ND	7.4	1	U
c-1,3-Dichloropropene	ND	2.3	1	U	1,2,4-Trichlorobenzene	ND	15	1	U
c-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Acetate	ND	7.0	1	U
t-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Chloride	ND	1.3	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	96	57-129			1,2-Dichloroethane-d4	83	47-137		
Toluene-d8	97	78-156							

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



Analytical Report



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

Date Received: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: ExxonMobil 99105/022783C

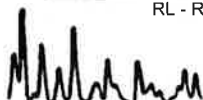
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVS2	12-06-1995-2-A	06/25/12 16:08	Air	GC/MS YY	N/A	07/01/12 01:11	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	15	5.0	1.06		t-1,3-Dichloropropene	ND	4.8	1.06	U
Benzene	5.7	1.7	1.06		Ethanol	ND	10	1.06	U
Benzyl Chloride	ND	8.2	1.06	U	Ethyl-t-Butyl Ether (ETBE)	ND	8.9	1.06	U
Bromodichloromethane	ND	3.6	1.06	U	Ethylbenzene	4.1	2.3	1.06	
Bromoform	ND	5.5	1.06	U	4-Ethyltoluene	ND	2.6	1.06	U
Bromomethane	ND	2.1	1.06	U	Hexachloro-1,3-Butadiene	ND	17	1.06	U
2-Butanone	ND	4.7	1.06	U	2-Hexanone	ND	6.5	1.06	U
Carbon Disulfide	15	6.6	1.06		Methyl-t-Butyl Ether (MTBE)	ND	7.6	1.06	U
Carbon Tetrachloride	ND	3.3	1.06	U	Methylene Chloride	ND	18	1.06	U
Chlorobenzene	5.7	2.4	1.06		4-Methyl-2-Pentanone	ND	6.5	1.06	U
Chloroethane	ND	1.4	1.06	U	Naphthalene	ND	28	1.06	U
Chloroform	8.9	2.6	1.06		Xylenes (total)	25	9.2	1.06	
Chloromethane	ND	1.1	1.06	U	Styrene	ND	6.8	1.06	U
Dibromochloromethane	ND	4.5	1.06	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.9	1.06	U
Dichlorodifluoromethane	ND	2.6	1.06	U	Tert-Butyl Alcohol (TBA)	ND	6.4	1.06	U
Diisopropyl Ether (DIPE)	ND	8.9	1.06	U	Tetrachloroethene	ND	3.6	1.06	U
1,1-Dichloroethane	ND	2.1	1.06	U	Toluene	4.6	2.0	1.06	
1,1-Dichloroethene	ND	2.1	1.06	U	Trichloroethene	ND	2.8	1.06	U
1,2-Dibromoethane	ND	4.1	1.06	U	Trichlorofluoromethane	ND	6.0	1.06	U
Dichlorotetrafluoroethane	ND	15	1.06	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	12	1.06	U
1,2-Dichlorobenzene	ND	3.2	1.06	U	1,1,1-Trichloroethane	ND	2.9	1.06	U
1,2-Dichloroethane	ND	2.1	1.06	U	1,1,2-Trichloroethane	ND	2.9	1.06	U
1,2-Dichloropropane	ND	2.4	1.06	U	1,3,5-Trimethylbenzene	ND	2.6	1.06	U
1,3-Dichlorobenzene	ND	3.2	1.06	U	1,1,2,2-Tetrachloroethane	ND	7.3	1.06	U
1,4-Dichlorobenzene	ND	3.2	1.06	U	1,2,4-Trimethylbenzene	ND	7.8	1.06	U
c-1,3-Dichloropropene	ND	2.4	1.06	U	1,2,4-Trichlorobenzene	ND	16	1.06	U
c-1,2-Dichloroethene	ND	2.1	1.06	U	Vinyl Acetate	ND	7.5	1.06	U
t-1,2-Dichloroethene	ND	2.1	1.06	U	Vinyl Chloride	ND	1.4	1.06	U
Surrogates:	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		Surrogates:	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	93	57-129			1,2-Dichloroethane-d4	78	47-137		
Toluene-d8	95	78-156							

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





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

Date Received: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: ExxonMobil 99105/022783C

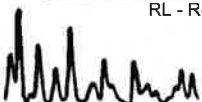
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVS3	12-06-1995-3-A	06/25/12 15:18	Air	GC/MS YY	N/A	07/01/12 02:06	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	18	4.8	1		t-1,3-Dichloropropene	ND	4.5	1	U
Benzene	9.6	1.6	1		Ethanol	ND	9.4	1	U
Benzyl Chloride	ND	7.8	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U
Bromodichloromethane	ND	3.4	1	U	Ethylbenzene	ND	2.2	1	U
Bromoform	ND	5.2	1	U	4-Ethyltoluene	ND	2.5	1	U
Bromomethane	ND	1.9	1	U	Hexachloro-1,3-Butadiene	ND	16	1	U
2-Butanone	ND	4.4	1	U	2-Hexanone	ND	6.1	1	U
Carbon Disulfide	16	6.2	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Carbon Tetrachloride	ND	3.1	1	U	Methylene Chloride	ND	17	1	U
Chlorobenzene	13	2.3	1		4-Methyl-2-Pentanone	ND	6.1	1	U
Chloroethane	ND	1.3	1	U	Naphthalene	ND	26	1	U
Chloroform	6.8	2.4	1		Xylenes (total)	13	8.7	1	
Chloromethane	ND	1.0	1	U	Styrene	ND	6.4	1	U
Dibromochloromethane	ND	4.3	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
Dichlorodifluoromethane	ND	2.5	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Tetrachloroethene	6.9	3.4	1	
1,1-Dichloroethane	ND	2.0	1	U	Toluene	4.5	1.9	1	
1,1-Dichloroethene	ND	2.0	1	U	Trichloroethene	37	2.7	1	
1,2-Dibromoethane	ND	3.8	1	U	Trichlorofluoromethane	ND	5.6	1	U
Dichlorotetrafluoroethane	ND	14	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	U
1,2-Dichlorobenzene	3.1	3.0	1		1,1,1-Trichloroethane	ND	2.7	1	U
1,2-Dichloroethane	ND	2.0	1	U	1,1,2-Trichloroethane	ND	2.7	1	U
1,2-Dichloropropane	ND	2.3	1	U	1,3,5-Trimethylbenzene	ND	2.5	1	U
1,3-Dichlorobenzene	ND	3.0	1	U	1,1,2,2-Tetrachloroethane	ND	6.9	1	U
1,4-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trimethylbenzene	ND	7.4	1	U
c-1,3-Dichloropropene	ND	2.3	1	U	1,2,4-Trichlorobenzene	ND	15	1	U
c-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Acetate	ND	7.0	1	U
t-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Chloride	ND	1.3	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	95	57-129			1,2-Dichloroethane-d4	79	47-137		
Toluene-d8	99	78-156							

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



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

Date Received: 06/29/12
 Work Order No: 12-06-1995
 Preparation: N/A
 Method: EPA TO-15
 Units: ug/m3

Project: ExxonMobil 99105/022783C

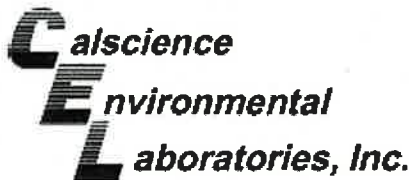
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW1	12-06-1995-4-A	06/26/12 11:00	Air	GC/MS YY	N/A	07/01/12 03:01	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	37	5.3	1.11		t-1,3-Dichloropropene	ND	5.0	1.11	U
Benzene	47	1.8	1.11		Ethanol	39	10	1.11	
Benzyl Chloride	ND	8.6	1.11	U	Ethyl-t-Butyl Ether (ETBE)	ND	9.3	1.11	U
Bromodichloromethane	ND	3.7	1.11	U	Ethylbenzene	9.4	2.4	1.11	
Bromoform	ND	5.7	1.11	U	4-Ethyltoluene	3.7	2.7	1.11	
Bromomethane	ND	2.2	1.11	U	Hexachloro-1,3-Butadiene	ND	18	1.11	U
2-Butanone	9.4	4.9	1.11		2-Hexanone	ND	6.8	1.11	U
Carbon Disulfide	8.8	6.9	1.11		Methyl-t-Butyl Ether (MTBE)	ND	8.0	1.11	U
Carbon Tetrachloride	ND	3.5	1.11	U	Methylene Chloride	ND	19	1.11	U
Chlorobenzene	53	2.6	1.11		4-Methyl-2-Pentanone	ND	6.8	1.11	U
Chloroethane	ND	1.5	1.11	U	Naphthalene	ND	29	1.11	U
Chloroform	ND	2.7	1.11	U	Xylenes (total)	84	9.6	1.11	
Chloromethane	ND	1.1	1.11	U	Styrene	ND	7.1	1.11	U
Dibromochloromethane	ND	4.7	1.11	U	Tert-Amyl-Methyl Ether (TAME)	ND	9.3	1.11	U
Dichlorodifluoromethane	ND	2.7	1.11	U	Tert-Butyl Alcohol (TBA)	ND	6.7	1.11	U
Diisopropyl Ether (DIPE)	ND	9.3	1.11	U	Tetrachloroethene	ND	3.8	1.11	U
1,1-Dichloroethane	ND	2.2	1.11	U	Toluene	33	2.1	1.11	
1,1-Dichloroethene	ND	2.2	1.11	U	Trichloroethene	ND	3.0	1.11	U
1,2-Dibromoethane	ND	4.3	1.11	U	Trichlorofluoromethane	ND	6.2	1.11	U
Dichlorotetrafluoroethane	ND	16	1.11	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13	1.11	U
1,2-Dichlorobenzene	12	3.3	1.11		1,1,1-Trichloroethane	ND	3.0	1.11	U
1,2-Dichloroethane	ND	2.2	1.11	U	1,1,2-Trichloroethane	ND	3.0	1.11	U
1,2-Dichloropropane	ND	2.6	1.11	U	1,3,5-Trimethylbenzene	4.1	2.7	1.11	
1,3-Dichlorobenzene	ND	3.3	1.11	U	1,1,2,2-Tetrachloroethane	ND	7.6	1.11	U
1,4-Dichlorobenzene	12	3.3	1.11		1,2,4-Trimethylbenzene	16	8.2	1.11	
c-1,3-Dichloropropene	ND	2.5	1.11	U	1,2,4-Trichlorobenzene	ND	16	1.11	U
c-1,2-Dichloroethene	ND	2.2	1.11	U	Vinyl Acetate	ND	7.8	1.11	U
t-1,2-Dichloroethene	ND	2.2	1.11	U	Vinyl Chloride	ND	1.4	1.11	U
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	94	57-129			1,2-Dichloroethane-d4	81	47-137		
Toluene-d8	98	78-156							

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



Analytical Report



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

Date Received: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW2	12-06-1995-5-A	06/26/12 08:46	Air	GC/MS YY	N/A	07/01/12 03:56	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	6.1	4.8	1		t-1,3-Dichloropropene	ND	4.5	1	U
Benzene	2.2	1.6	1		Ethanol	25	9.4	1	
Benzyl Chloride	ND	7.8	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U
Bromodichloromethane	4.2	3.4	1		Ethylbenzene	ND	2.2	1	U
Bromoform	ND	5.2	1	U	4-Ethyltoluene	ND	2.5	1	U
Bromomethane	ND	1.9	1	U	Hexachloro-1,3-Butadiene	ND	16	1	U
2-Butanone	ND	4.4	1	U	2-Hexanone	ND	6.1	1	U
Carbon Disulfide	ND	6.2	1	U	Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Carbon Tetrachloride	ND	3.1	1	U	Methylene Chloride	ND	17	1	U
Chlorobenzene	4.0	2.3	1		4-Methyl-2-Pentanone	ND	6.1	1	U
Chloroethane	ND	1.3	1	U	Naphthalene	ND	26	1	U
Chloroform	300	2.4	1		Xylenes (total)	ND	8.7	1	U
Chloromethane	ND	1.0	1	U	Styrene	ND	6.4	1	U
Dibromochloromethane	ND	4.3	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
Dichlorodifluoromethane	ND	2.5	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Tetrachloroethene	8.1	3.4	1	
1,1-Dichloroethane	ND	2.0	1	U	Toluene	3.0	1.9	1	
1,1-Dichloroethene	ND	2.0	1	U	Trichloroethene	4.7	2.7	1	
1,2-Dibromoethane	ND	3.8	1	U	Trichlorofluoromethane	ND	5.6	1	U
Dichlorotetrafluoroethane	ND	14	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	U
1,2-Dichlorobenzene	ND	3.0	1	U	1,1,1-Trichloroethane	ND	2.7	1	U
1,2-Dichloroethane	ND	2.0	1	U	1,1,2-Trichloroethane	ND	2.7	1	U
1,2-Dichloropropane	ND	2.3	1	U	1,3,5-Trimethylbenzene	ND	2.5	1	U
1,3-Dichlorobenzene	ND	3.0	1	U	1,1,2,2-Tetrachloroethane	ND	6.9	1	U
1,4-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trimethylbenzene	ND	7.4	1	U
c-1,3-Dichloropropene	ND	2.3	1	U	1,2,4-Trichlorobenzene	ND	15	1	U
c-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Acetate	ND	7.0	1	U
t-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Chloride	ND	1.3	1	U
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	94	57-129			1,2-Dichloroethane-d4	85	47-137		
Toluene-d8	98	78-156							

Return to Contents ↑

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



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

Date Received: 06/29/12
 Work Order No: 12-06-1995
 Preparation: N/A
 Method: EPA TO-15
 Units: ug/m3

Project: ExxonMobil 99105/022783C

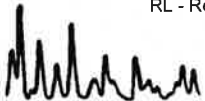
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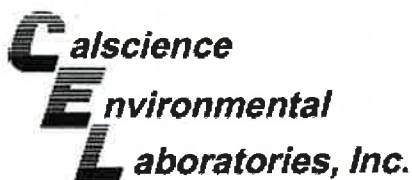
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4	12-06-1995-6-A	06/26/12 13:19	Air	GC/MS YY	N/A	06/30/12 22:17	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	4800	1000	U	t-1,3-Dichloropropene	ND	4500	1000	U
Benzene	30000	1600	1000		Ethanol	ND	9400	1000	U
Benzyl Chloride	ND	7800	1000	U	Ethyl-t-Butyl Ether (ETBE)	ND	8400	1000	U
Bromodichloromethane	ND	3400	1000	U	Ethylbenzene	95000	2200	1000	
Bromoform	ND	5200	1000	U	4-Ethyltoluene	15000	2500	1000	
Bromomethane	ND	1900	1000	U	Hexachloro-1,3-Butadiene	ND	16000	1000	U
2-Butanone	ND	4400	1000	U	2-Hexanone	ND	6100	1000	U
Carbon Disulfide	ND	6200	1000	U	Methyl-t-Butyl Ether (MTBE)	ND	7200	1000	U
Carbon Tetrachloride	ND	3100	1000	U	Methylene Chloride	ND	17000	1000	U
Chlorobenzene	ND	2300	1000	U	4-Methyl-2-Pentanone	ND	6100	1000	U
Chloroethane	ND	1300	1000	U	Naphthalene	ND	26000	1000	U
Chloroform	ND	2400	1000	U	Xylenes (total)	20000	8700	1000	
Chloromethane	ND	1000	1000	U	Styrene	ND	6400	1000	U
Dibromochloromethane	ND	4300	1000	U	Tert-Amyl-Methyl Ether (TAME)	ND	8400	1000	U
Dichlorodifluoromethane	ND	2500	1000	U	Tert-Butyl Alcohol (TBA)	ND	6100	1000	U
Diisopropyl Ether (DIPE)	ND	8400	1000	U	Tetrachloroethene	ND	3400	1000	U
1,1-Dichloroethane	ND	2000	1000	U	Toluene	ND	1900	1000	U
1,1-Dichloroethene	ND	2000	1000	U	Trichloroethene	ND	2700	1000	U
1,2-Dibromoethane	ND	3800	1000	U	Trichlorofluoromethane	ND	5600	1000	U
Dichlorotetrafluoroethane	ND	14000	1000	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11000	1000	U
1,2-Dichlorobenzene	ND	3000	1000	U	1,1,1-Trichloroethane	ND	2700	1000	U
1,2-Dichloroethane	ND	2000	1000	U	1,1,2-Trichloroethane	ND	2700	1000	U
1,2-Dichloropropane	ND	2300	1000	U	1,3,5-Trimethylbenzene	29000	2500	1000	
1,3-Dichlorobenzene	ND	3000	1000	U	1,1,2,2-Tetrachloroethane	ND	6900	1000	U
1,4-Dichlorobenzene	ND	3000	1000	U	1,2,4-Trimethylbenzene	72000	7400	1000	
c-1,3-Dichloropropene	ND	2300	1000	U	1,2,4-Trichlorobenzene	ND	15000	1000	U
c-1,2-Dichloroethene	ND	2000	1000	U	Vinyl Acetate	ND	7000	1000	U
t-1,2-Dichloroethene	ND	2000	1000	U	Vinyl Chloride	ND	1300	1000	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	107	57-129			1,2-Dichloroethane-d4	81	47-137		
Toluene-d8	88	78-156							

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: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4-Duplicate	12-06-1995-7-A	06/26/12 13:22	Air	GC/MS YY	N/A	07/02/12 16:40	120702L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	480	100	U	t-1,3-Dichloropropene	ND	450	100	U
Benzene	900	160	100		Ethanol	ND	940	100	U
Benzyl Chloride	ND	780	100	U	Ethyl-t-Butyl Ether (ETBE)	ND	840	100	U
Bromodichloromethane	ND	340	100	U	Ethylbenzene	2300	220	100	
Bromoform	ND	520	100	U	4-Ethyltoluene	310	250	100	
Bromomethane	ND	190	100	U	Hexachloro-1,3-Butadiene	ND	1600	100	U
2-Butanone	ND	440	100	U	2-Hexanone	ND	610	100	U
Carbon Disulfide	ND	620	100	U	Methyl-t-Butyl Ether (MTBE)	ND	720	100	U
Carbon Tetrachloride	ND	310	100	U	Methylene Chloride	ND	1700	100	U
Chlorobenzene	ND	230	100	U	4-Methyl-2-Pentanone	ND	610	100	U
Chloroethane	ND	130	100	U	Naphthalene	ND	2600	100	U
Chloroform	ND	240	100	U	Xylenes (total)	ND	870	100	U
Chloromethane	ND	100	100	U	Styrene	ND	640	100	U
Dibromochloromethane	ND	430	100	U	Tert-Amyl-Methyl Ether (TAME)	ND	840	100	U
Dichlorodifluoromethane	ND	250	100	U	Tert-Butyl Alcohol (TBA)	ND	610	100	U
Diisopropyl Ether (DIPE)	ND	840	100	U	Tetrachloroethene	ND	340	100	U
1,1-Dichloroethane	ND	200	100	U	Toluene	ND	190	100	U
1,1-Dichloroethene	ND	200	100	U	Trichloroethene	ND	270	100	U
1,2-Dibromoethane	ND	380	100	U	Trichlorofluoromethane	ND	560	100	U
Dichlorotetrafluoroethane	ND	1400	100	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1100	100	U
1,2-Dichlorobenzene	ND	300	100	U	1,1,1-Trichloroethane	ND	270	100	U
1,2-Dichloroethane	ND	200	100	U	1,1,2-Trichloroethane	ND	270	100	U
1,2-Dichloropropane	ND	230	100	U	1,3,5-Trimethylbenzene	530	250	100	
1,3-Dichlorobenzene	ND	300	100	U	1,1,2,2-Tetrachloroethane	ND	690	100	U
1,4-Dichlorobenzene	ND	300	100	U	1,2,4-Trimethylbenzene	1100	740	100	
c-1,3-Dichloropropene	ND	230	100	U	1,2,4-Trichlorobenzene	ND	1500	100	U
c-1,2-Dichloroethene	ND	200	100	U	Vinyl Acetate	ND	700	100	U
t-1,2-Dichloroethene	ND	200	100	U	Vinyl Chloride	ND	130	100	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	103	57-129			1,2-Dichloroethane-d4	80	47-137		
Toluene-d8	96	78-156							



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

Analytical Report



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

Date Received: 06/29/12
 Work Order No: 12-06-1995
 Preparation: N/A
 Method: EPA TO-15
 Units: ug/m3

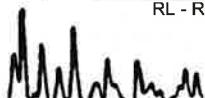
Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW5	12-06-1995-8-A	06/26/12 12:26	Air	GC/MS YY	N/A	07/02/12 17:30	120702L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	480	100	U	t-1,3-Dichloropropene	ND	450	100	U
Benzene	370	160	100		Ethanol	ND	940	100	U
Benzyl Chloride	ND	780	100	U	Ethyl-t-Butyl Ether (ETBE)	ND	840	100	U
Bromodichloromethane	ND	340	100	U	Ethylbenzene	ND	220	100	U
Bromoform	ND	520	100	U	4-Ethyltoluene	ND	250	100	U
Bromomethane	ND	190	100	U	Hexachloro-1,3-Butadiene	ND	1600	100	U
2-Butanone	ND	440	100	U	2-Hexanone	ND	610	100	U
Carbon Disulfide	ND	620	100	U	Methyl-t-Butyl Ether (MTBE)	ND	720	100	U
Carbon Tetrachloride	ND	310	100	U	Methylene Chloride	ND	1700	100	U
Chlorobenzene	ND	230	100	U	4-Methyl-2-Pentanone	ND	610	100	U
Chloroethane	ND	130	100	U	Naphthalene	ND	2600	100	U
Chloroform	ND	240	100	U	Xylenes (total)	ND	870	100	U
Chloromethane	ND	100	100	U	Styrene	ND	640	100	U
Dibromochloromethane	ND	430	100	U	Tert-Amyl-Methyl Ether (TAME)	ND	840	100	U
Dichlorodifluoromethane	ND	250	100	U	Tert-Butyl Alcohol (TBA)	ND	610	100	U
Diisopropyl Ether (DIPE)	ND	840	100	U	Tetrachloroethene	ND	340	100	U
1,1-Dichloroethane	ND	200	100	U	Toluene	ND	190	100	U
1,1-Dichloroethene	ND	200	100	U	Trichloroethene	ND	270	100	U
1,2-Dibromoethane	ND	380	100	U	Trichlorofluoromethane	ND	560	100	U
Dichlorotetrafluoroethane	ND	1400	100	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1100	100	U
1,2-Dichlorobenzene	ND	300	100	U	1,1,1-Trichloroethane	ND	270	100	U
1,2-Dichloroethane	ND	200	100	U	1,1,2-Trichloroethane	ND	270	100	U
1,2-Dichloropropane	ND	230	100	U	1,3,5-Trimethylbenzene	ND	250	100	U
1,3-Dichlorobenzene	ND	300	100	U	1,1,2,2-Tetrachloroethane	ND	690	100	U
1,4-Dichlorobenzene	ND	300	100	U	1,2,4-Trimethylbenzene	ND	740	100	U
c-1,3-Dichloropropene	ND	230	100	U	1,2,4-Trichlorobenzene	ND	1500	100	U
c-1,2-Dichloroethene	ND	200	100	U	Vinyl Acetate	ND	700	100	U
t-1,2-Dichloroethene	ND	200	100	U	Vinyl Chloride	ND	130	100	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	108	57-129			1,2-Dichloroethane-d4	80	47-137		
Toluene-d8	94	78-156							

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Analytical Report



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

Date Received: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: ExxonMobil 99105/022783C

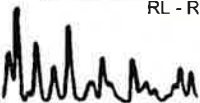
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Trip Blank	12-06-1995-9-A	06/25/12 00:00	Air	GC/MS YY	N/A	06/30/12 17:51	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	4.8	1	U	t-1,3-Dichloropropene	ND	4.5	1	U
Benzene	ND	1.6	1	U	Ethanol	ND	9.4	1	U
Benzyl Chloride	ND	7.8	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U
Bromodichloromethane	ND	3.4	1	U	Ethylbenzene	ND	2.2	1	U
Bromoform	ND	5.2	1	U	4-Ethyltoluene	ND	2.5	1	U
Bromomethane	ND	1.9	1	U	Hexachloro-1,3-Butadiene	ND	16	1	U
2-Butanone	ND	4.4	1	U	2-Hexanone	ND	6.1	1	U
Carbon Disulfide	ND	6.2	1	U	Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Carbon Tetrachloride	ND	3.1	1	U	Methylene Chloride	ND	17	1	U
Chlorobenzene	ND	2.3	1	U	4-Methyl-2-Pentanone	ND	6.1	1	U
Chloroethane	ND	1.3	1	U	Naphthalene	ND	26	1	U
Chloroform	ND	2.4	1	U	Xylenes (total)	ND	8.7	1	U
Chloromethane	ND	1.0	1	U	Styrene	ND	6.4	1	U
Dibromochloromethane	ND	4.3	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
Dichlorodifluoromethane	ND	2.5	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Tetrachloroethene	ND	3.4	1	U
1,1-Dichloroethane	ND	2.0	1	U	Toluene	ND	1.9	1	U
1,1-Dichloroethene	ND	2.0	1	U	Trichloroethene	ND	2.7	1	U
1,2-Dibromoethane	ND	3.8	1	U	Trichlorofluoromethane	ND	5.6	1	U
Dichlorotetrafluoroethane	ND	14	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	U
1,2-Dichlorobenzene	ND	3.0	1	U	1,1,1-Trichloroethane	ND	2.7	1	U
1,2-Dichloroethane	ND	2.0	1	U	1,1,2-Trichloroethane	ND	2.7	1	U
1,2-Dichloropropane	ND	2.3	1	U	1,3,5-Trimethylbenzene	ND	2.5	1	U
1,3-Dichlorobenzene	ND	3.0	1	U	1,1,2,2-Tetrachloroethane	ND	6.9	1	U
1,4-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trimethylbenzene	ND	7.4	1	U
c-1,3-Dichloropropene	ND	2.3	1	U	1,2,4-Trichlorobenzene	ND	15	1	U
c-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Acetate	ND	7.0	1	U
t-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Chloride	ND	1.3	1	U
Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual		
1,4-Bromofluorobenzene	100	57-129		1,2-Dichloroethane-d4	89	47-137			
Toluene-d8	98	78-156							

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: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: ExxonMobil 99105/022783C

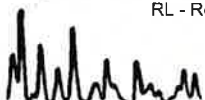
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Trip Blank	12-06-1995-10-A	06/26/12 00:00	Air	GC/MS YY	N/A	06/30/12 19:08	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	4.8	1	U	t-1,3-Dichloropropene	ND	4.5	1	U
Benzene	ND	1.6	1	U	Ethanol	ND	9.4	1	U
Benzyl Chloride	ND	7.8	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U
Bromodichloromethane	ND	3.4	1	U	Ethylbenzene	ND	2.2	1	U
Bromoform	ND	5.2	1	U	4-Ethyltoluene	ND	2.5	1	U
Bromomethane	ND	1.9	1	U	Hexachloro-1,3-Butadiene	ND	16	1	U
2-Butanone	ND	4.4	1	U	2-Hexanone	ND	6.1	1	U
Carbon Disulfide	ND	6.2	1	U	Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Carbon Tetrachloride	ND	3.1	1	U	Methylene Chloride	ND	17	1	U
Chlorobenzene	ND	2.3	1	U	4-Methyl-2-Pentanone	ND	6.1	1	U
Chloroethane	ND	1.3	1	U	Naphthalene	ND	26	1	U
Chloroform	ND	2.4	1	U	Xylenes (total)	ND	8.7	1	U
Chloromethane	ND	1.0	1	U	Styrene	ND	6.4	1	U
Dibromochloromethane	ND	4.3	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
Dichlorodifluoromethane	ND	2.5	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Tetrachloroethene	ND	3.4	1	U
1,1-Dichloroethane	ND	2.0	1	U	Toluene	ND	1.9	1	U
1,1-Dichloroethene	ND	2.0	1	U	Trichloroethene	ND	2.7	1	U
1,2-Dibromoethane	ND	3.8	1	U	Trichlorofluoromethane	ND	5.6	1	U
Dichlorotetrafluoroethane	ND	14	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	U
1,2-Dichlorobenzene	ND	3.0	1	U	1,1,1-Trichloroethane	ND	2.7	1	U
1,2-Dichloroethane	ND	2.0	1	U	1,1,2-Trichloroethane	ND	2.7	1	U
1,2-Dichloropropane	ND	2.3	1	U	1,3,5-Trimethylbenzene	ND	2.5	1	U
1,3-Dichlorobenzene	ND	3.0	1	U	1,1,2,2-Tetrachloroethane	ND	6.9	1	U
1,4-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trimethylbenzene	ND	7.4	1	U
c-1,3-Dichloropropene	ND	2.3	1	U	1,2,4-Trichlorobenzene	ND	15	1	U
c-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Acetate	ND	7.0	1	U
t-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Chloride	ND	1.3	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	101	57-129		1,2-Dichloroethane-d4	89	47-137			
Toluene-d8	98	78-156							

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: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: ExxonMobil 99105/022783C

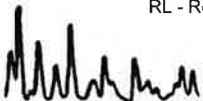
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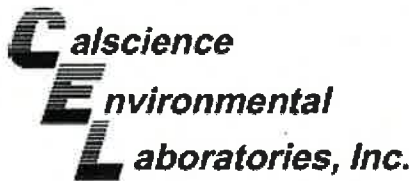
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Method Blank	095-01-021-10,242	N/A	Air	GC/MS YY	N/A	07/02/12 13:51	120702L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	4.8	1	U	t-1,3-Dichloropropene	ND	4.5	1	U
Benzene	ND	1.6	1	U	Ethanol	ND	9.4	1	U
Benzyl Chloride	ND	7.8	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U
Bromodichloromethane	ND	3.4	1	U	Ethylbenzene	ND	2.2	1	U
Bromoform	ND	5.2	1	U	4-Ethyltoluene	ND	2.5	1	U
Bromomethane	ND	1.9	1	U	Hexachloro-1,3-Butadiene	ND	16	1	U
2-Butanone	ND	4.4	1	U	2-Hexanone	ND	6.1	1	U
Carbon Disulfide	ND	6.2	1	U	Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Carbon Tetrachloride	ND	3.1	1	U	Methylene Chloride	ND	17	1	U
Chlorobenzene	ND	2.3	1	U	4-Methyl-2-Pentanone	ND	6.1	1	U
Chloroethane	ND	1.3	1	U	Naphthalene	ND	26	1	U
Chloroform	ND	2.4	1	U	Xylenes (total)	ND	8.7	1	U
Chloromethane	ND	1.0	1	U	Styrene	ND	6.4	1	U
Dibromochloromethane	ND	4.3	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
Dichlorodifluoromethane	ND	2.5	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Tetrachloroethene	ND	3.4	1	U
1,1-Dichloroethane	ND	2.0	1	U	Toluene	ND	1.9	1	U
1,1-Dichloroethene	ND	2.0	1	U	Trichloroethene	ND	2.7	1	U
1,2-Dibromoethane	ND	3.8	1	U	Trichlorofluoromethane	ND	5.6	1	U
Dichlorotetrafluoroethane	ND	14	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	U
1,2-Dichlorobenzene	ND	3.0	1	U	1,1,1-Trichloroethane	ND	2.7	1	U
1,2-Dichloroethane	ND	2.0	1	U	1,1,2-Trichloroethane	ND	2.7	1	U
1,2-Dichloropropane	ND	2.3	1	U	1,3,5-Trimethylbenzene	ND	2.5	1	U
1,3-Dichlorobenzene	ND	3.0	1	U	1,1,2,2-Tetrachloroethane	ND	6.9	1	U
1,4-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trimethylbenzene	ND	7.4	1	U
c-1,3-Dichloropropene	ND	2.3	1	U	1,2,4-Trichlorobenzene	ND	15	1	U
c-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Acetate	ND	7.0	1	U
t-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Chloride	ND	1.3	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	99	57-129			1,2-Dichloroethane-d4	85	47-137		
Toluene-d8	99	78-156							

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: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	095-01-021-10,252	N/A	Air	GC/MS YY	N/A	06/30/12 13:23	120630L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	4.8	1	U	t-1,3-Dichloropropene	ND	4.5	1	U
Benzene	ND	1.6	1	U	Ethanol	ND	9.4	1	U
Benzyl Chloride	ND	7.8	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U
Bromodichloromethane	ND	3.4	1	U	Ethylbenzene	ND	2.2	1	U
Bromoform	ND	5.2	1	U	4-Ethyltoluene	ND	2.5	1	U
Bromomethane	ND	1.9	1	U	Hexachloro-1,3-Butadiene	ND	16	1	U
2-Butanone	ND	4.4	1	U	2-Hexanone	ND	6.1	1	U
Carbon Disulfide	ND	6.2	1	U	Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Carbon Tetrachloride	ND	3.1	1	U	Methylene Chloride	ND	17	1	U
Chlorobenzene	ND	2.3	1	U	4-Methyl-2-Pentanone	ND	6.1	1	U
Chloroethane	ND	1.3	1	U	Naphthalene	ND	26	1	U
Chloroform	ND	2.4	1	U	Xylenes (total)	ND	8.7	1	U
Chloromethane	ND	1.0	1	U	Styrene	ND	6.4	1	U
Dibromochloromethane	ND	4.3	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
Dichlorodifluoromethane	ND	2.5	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Tetrachloroethene	ND	3.4	1	U
1,1-Dichloroethane	ND	2.0	1	U	Toluene	ND	1.9	1	U
1,1-Dichloroethene	ND	2.0	1	U	Trichloroethene	ND	2.7	1	U
1,2-Dibromoethane	ND	3.8	1	U	Trichlorofluoromethane	ND	5.6	1	U
Dichlorotetrafluoroethane	ND	14	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	U
1,2-Dichlorobenzene	ND	3.0	1	U	1,1,1-Trichloroethane	ND	2.7	1	U
1,2-Dichloroethane	ND	2.0	1	U	1,1,2-Trichloroethane	ND	2.7	1	U
1,2-Dichloropropane	ND	2.3	1	U	1,3,5-Trimethylbenzene	ND	2.5	1	U
1,3-Dichlorobenzene	ND	3.0	1	U	1,1,2,2-Tetrachloroethane	ND	6.9	1	U
1,4-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trimethylbenzene	ND	7.4	1	U
c-1,3-Dichloropropene	ND	2.3	1	U	1,2,4-Trichlorobenzene	ND	15	1	U
c-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Acetate	ND	7.0	1	U
t-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Chloride	ND	1.3	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	100	57-129			1,2-Dichloroethane-d4	86	47-137		
Toluene-d8	99	78-156							

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: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-3M

Project: ExxonMobil 99105/022783C

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVS1	12-06-1995-1-A	06/25/12 17:07	Air	GC 53	N/A	06/29/12 16:10	120629L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	8200	7000	1		ug/m3

SVS2	12-06-1995-2-A	06/25/12 16:08	Air	GC 53	N/A	06/29/12 16:21	120629L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1	U	ug/m3

SVS3	12-06-1995-3-A	06/25/12 15:18	Air	GC 53	N/A	06/29/12 16:32	120629L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1	U	ug/m3

VW1	12-06-1995-4-A	06/26/12 11:00	Air	GC 53	N/A	06/29/12 16:43	120629L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	8100	7000	1		ug/m3

VW2	12-06-1995-5-A	06/26/12 08:46	Air	GC 53	N/A	06/29/12 16:56	120629L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1	U	ug/m3

VW4	12-06-1995-6-A	06/26/12 13:19	Air	GC 53	N/A	06/29/12 17:32	120629L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	220000000	1400000	200		ug/m3

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: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-3M

Project: ExxonMobil 99105/022783C

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4-Duplicate	12-06-1995-7-A	06/26/12 13:22	Air	GC 53	N/A	06/29/12 18:32	120629L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	4500000	35000	5		ug/m3

VW5	12-06-1995-8-A	06/26/12 12:26	Air	GC 53	N/A	06/29/12 22:31	120629L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	4300000	17000	2.5		ug/m3

Trip Blank	12-06-1995-9-A	06/25/12 00:00	Air	GC 53	N/A	06/29/12 15:49	120629L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1	U	ug/m3

Trip Blank	12-06-1995-10-A	06/26/12 00:00	Air	GC 53	N/A	06/29/12 16:00	120629L01
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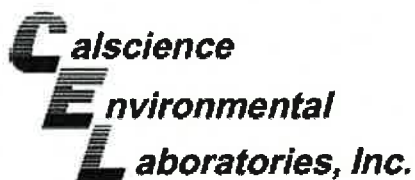
Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1	U	ug/m3

Method Blank	098-01-005-3,991	N/A	Air	GC 53	N/A	06/29/12 10:32	120629L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1	U	ug/m3

Return to Contents

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



Quality Control - Duplicate



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

Date Received: 06/29/12
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-3M

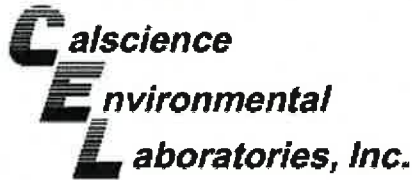
Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
VW4-Duplicate	Air	GC 53	N/A	06/29/12	120629D01

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
TPH as Gasoline	4501000	4030000	11	0-20	

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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: 12-06-1995
Preparation: N/A
Method: ASTM D-1946

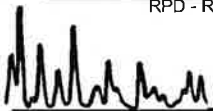
Project: ExxonMobil 99105/022783C

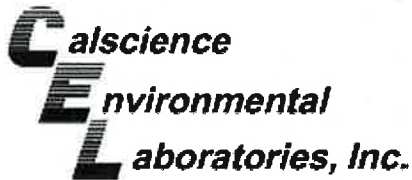
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,588	Air	GC 34	N/A	06/30/12	120630L01

Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Methane	10.12	10.07	100	10.12	100	80-120	1	0-30	
Carbon Dioxide	10.07	10.85	108	10.94	109	80-120	1	0-30	
Oxygen + Argon	3.500	3.583	102	3.599	103	80-120	0	0-30	

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: 12-06-1995
Preparation: N/A
Method: ASTM D-1946

Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,587	Air	GC 34	N/A	07/02/12	120702L01

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Methane	10.12	9.848	97	9.788	97	80-120	1	0-30	
Carbon Dioxide	10.07	10.32	102	10.25	102	80-120	1	0-30	
Oxygen + Argon	3.500	3.635	104	3.616	103	80-120	1	0-30	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Cardno ERI	Date Received:	N/A
601 North McDowell Blvd.	Work Order No:	12-06-1995
Petaluma, CA 94954-2312	Preparation:	N/A
	Method:	EPA TO-3M

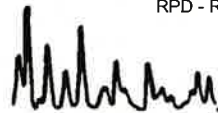
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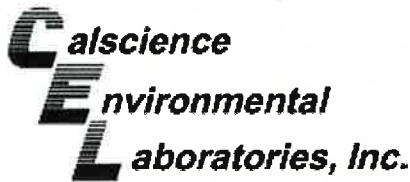
Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
098-01-005-3,991	Air	GC 53	06/29/12	29000005	120629L01

Parameter	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
TPH as Gasoline	932500	925400	99	80-120	

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: 12-06-1995
Preparation: N/A
Method: ASTM D-1946 (M)

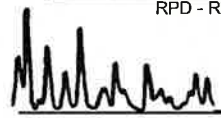
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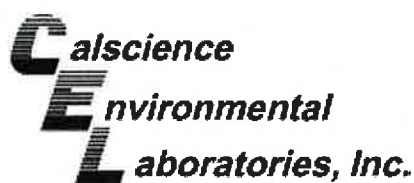
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099-12-872-287	Air	GC 55	N/A	06/29/12	120629L01

Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Helium	1.000	0.8024	80	0.9347	93	80-120	15	0-30	

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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

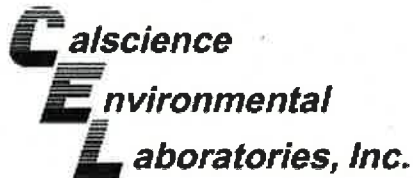
Date Received: N/A
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15

Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number					
095-01-021-10,252	Air	GC/MS YY	N/A	06/30/12	120630L01					
Parameter	<u>SPIKE</u> <u>ADDED</u>	<u>LCS</u> <u>CONC</u>	<u>LCS</u> <u>%REC</u>	<u>LCSD</u> <u>CONC</u>	<u>LCSD</u> <u>%REC</u>	<u>%REC</u> CL	<u>ME</u> CL	RPD	<u>RPD</u> CL	Qualifiers
Acetone	59.39	56.32	95	56.04	94	50-150	33-167	1	0-35	
Benzene	79.87	83.60	105	83.77	105	60-156	44-172	0	0-40	
Benzyl Chloride	129.4	107.6	83	105.2	81	50-150	33-167	2	0-35	
Bromodichloromethane	167.5	161.0	96	159.4	95	50-150	33-167	1	0-35	
Bromoform	258.4	240.9	93	238.5	92	62-134	50-146	1	0-38	
Bromomethane	97.08	86.59	89	84.86	87	50-150	33-167	2	0-35	
2-Butanone	73.73	73.62	100	72.74	99	50-150	33-167	1	0-35	
Carbon Disulfide	77.85	79.97	103	79.68	102	50-150	33-167	0	0-35	
Carbon Tetrachloride	157.3	142.8	91	140.3	89	64-154	49-169	2	0-32	
Chlorobenzene	115.1	113.6	99	114.2	99	50-150	33-167	1	0-35	
Chloroethane	65.96	60.13	91	59.46	90	50-150	33-167	1	0-35	
Chloroform	122.1	111.1	91	108.9	89	50-150	33-167	2	0-35	
Chloromethane	51.63	48.07	93	47.36	92	50-150	33-167	1	0-35	
Dibromochloromethane	213.0	206.1	97	205.3	96	50-150	33-167	0	0-35	
Dichlorodifluoromethane	123.6	102.0	83	98.69	80	50-150	33-167	3	0-35	
Diisopropyl Ether (DIPE)	104.5	97.22	93	94.87	91	50-150	33-167	2	0-35	
1,1-Dichloroethane	101.2	95.33	94	94.53	93	50-150	33-167	1	0-35	
1,1-Dichloroethene	99.12	92.56	93	91.15	92	50-150	33-167	2	0-35	
1,2-Dibromoethane	192.1	183.1	95	182.9	95	54-144	39-159	0	0-36	
Dichlorotetrafluoroethane	174.8	148.5	85	145.6	83	50-150	33-167	2	0-35	
1,2-Dichlorobenzene	150.3	122.2	81	119.9	80	34-160	13-181	2	0-47	
1,2-Dichloroethane	101.2	88.08	87	86.23	85	69-153	55-167	2	0-35	
1,2-Dichloropropane	115.5	117.6	102	117.8	102	67-157	52-172	0	0-35	
1,3-Dichlorobenzene	150.3	123.1	82	121.2	81	50-150	33-167	2	0-35	
1,4-Dichlorobenzene	150.3	120.8	80	119.4	79	36-156	16-176	1	0-47	
c-1,3-Dichloropropene	113.5	114.2	101	114.2	101	61-157	45-173	0	0-35	
c-1,2-Dichloroethene	99.12	102.8	104	103.0	104	50-150	33-167	0	0-35	
t-1,2-Dichloroethene	99.12	102.3	103	101.7	103	50-150	33-167	1	0-35	
t-1,3-Dichloropropene	113.5	109.7	97	109.9	97	50-150	33-167	0	0-35	
Ethanol	188.4	169.6	90	174.1	92	50-150	33-167	3	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	89.90	86	90.72	87	50-150	33-167	1	0-35	
Ethylbenzene	108.6	102.6	94	102.3	94	52-154	35-171	0	0-38	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



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

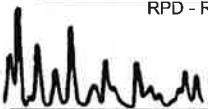
Date Received: N/A
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15

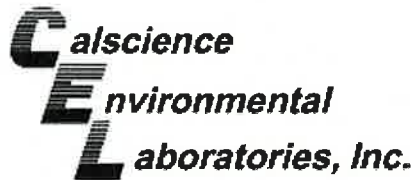
Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number					
095-01-021-10,252	Air	GC/MS YY	N/A	06/30/12	120630L01					
Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
4-Ethyltoluene	122.9	104.3	85	103.2	84	50-150	33-167	1	0-35	
Hexachloro-1,3-Butadiene	266.6	248.5	93	254.8	96	50-150	33-167	3	0-35	
2-Hexanone	102.4	109.5	107	109.8	107	50-150	33-167	0	0-35	
Methyl-t-Butyl Ether (MTBE)	90.13	75.36	84	76.48	85	50-150	33-167	1	0-35	
Methylene Chloride	86.84	86.13	99	85.72	99	50-150	33-167	0	0-35	
4-Methyl-2-Pentanone	102.4	105.8	103	106.1	104	50-150	33-167	0	0-35	
Naphthalene	131.1	147.6	113	150.5	115	40-190	15-215	2	0-35	
Xylenes (total)	325.7	306.5	94	304.9	94	42-156	23-175	1	0-41	
Styrene	106.5	105.3	99	104.7	98	50-150	33-167	1	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	83.72	80	86.96	83	50-150	33-167	4	0-35	
Tert-Butyl Alcohol (TBA)	151.6	132.4	87	133.8	88	50-150	33-167	1	0-35	
Tetrachloroethene	169.6	170.2	100	170.2	100	56-152	40-168	0	0-40	
Toluene	94.21	95.32	101	95.94	102	56-146	41-161	1	0-43	
Trichloroethene	134.3	133.9	100	133.2	99	63-159	47-175	1	0-34	
Trichlorofluoromethane	140.5	121.5	87	118.7	85	50-150	33-167	2	0-35	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	187.3	98	185.2	97	50-150	33-167	1	0-35	
1,1,1-Trichloroethane	136.4	120.5	88	118.5	87	50-150	33-167	2	0-35	
1,1,2-Trichloroethane	136.4	134.8	99	134.5	99	65-149	51-163	0	0-37	
1,3,5-Trimethylbenzene	122.9	101.6	83	100.3	82	50-150	33-167	1	0-35	
1,1,2,2-Tetrachloroethane	171.6	160.4	93	158.4	92	50-150	33-167	1	0-35	
1,2,4-Trimethylbenzene	122.9	100.6	82	99.71	81	50-150	33-167	1	0-35	
1,2,4-Trichlorobenzene	185.5	210.8	114	212.2	114	50-150	33-167	1	0-35	
Vinyl Acetate	88.03	85.58	97	84.60	96	50-150	33-167	1	0-35	
Vinyl Chloride	63.91	57.80	90	57.25	90	45-177	23-199	1	0-36	

Total number of LCS compounds : 56
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



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

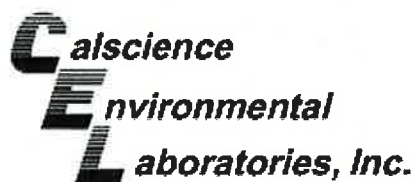
Date Received: N/A
Work Order No: 12-06-1995
Preparation: N/A
Method: EPA TO-15

Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument		Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
095-01-021-10,242	Air	GC/MS YY		N/A	07/02/12	120702L01				
Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	59.39	55.53	93	56.10	94	50-150	33-167	1	0-35	
Benzene	79.87	83.41	104	83.77	105	60-156	44-172	0	0-40	
Benzyl Chloride	129.4	98.79	76	102.5	79	50-150	33-167	4	0-35	
Bromodichloromethane	167.5	155.5	93	155.2	93	50-150	33-167	0	0-35	
Bromoform	258.4	231.9	90	233.3	90	62-134	50-146	1	0-38	
Bromomethane	97.08	83.31	86	83.94	86	50-150	33-167	1	0-35	
2-Butanone	73.73	71.03	96	71.52	97	50-150	33-167	1	0-35	
Carbon Disulfide	77.85	79.25	102	80.27	103	50-150	33-167	1	0-35	
Carbon Tetrachloride	157.3	135.8	86	134.7	86	64-154	49-169	1	0-32	
Chlorobenzene	115.1	113.6	99	114.5	99	50-150	33-167	1	0-35	
Chloroethane	65.96	58.61	89	59.09	90	50-150	33-167	1	0-35	
Chloroform	122.1	106.7	87	108.0	88	50-150	33-167	1	0-35	
Chloromethane	51.63	45.86	89	46.27	90	50-150	33-167	1	0-35	
Dibromochloromethane	213.0	200.9	94	201.9	95	50-150	33-167	1	0-35	
Dichlorodifluoromethane	123.6	96.41	78	97.10	79	50-150	33-167	1	0-35	
Diisopropyl Ether (DIPE)	104.5	95.77	92	91.93	88	50-150	33-167	4	0-35	
1,1-Dichloroethane	101.2	94.34	93	95.40	94	50-150	33-167	1	0-35	
1,1-Dichloroethene	99.12	90.27	91	90.65	91	50-150	33-167	0	0-35	
1,2-Dibromoethane	192.1	179.2	93	183.3	95	54-144	39-159	2	0-36	
Dichlorotetrafluoroethane	174.8	142.5	82	144.1	82	50-150	33-167	1	0-35	
1,2-Dichlorobenzene	150.3	118.3	79	122.5	82	34-160	13-181	3	0-47	
1,2-Dichloroethane	101.2	84.54	84	85.21	84	69-153	55-167	1	0-35	
1,2-Dichloropropane	115.5	114.6	99	118.5	103	67-157	52-172	3	0-35	
1,3-Dichlorobenzene	150.3	119.8	80	122.2	81	50-150	33-167	2	0-35	
1,4-Dichlorobenzene	150.3	118.1	79	121.0	80	36-156	16-176	2	0-47	
c-1,3-Dichloropropene	113.5	111.9	99	113.1	100	61-157	45-173	1	0-35	
c-1,2-Dichloroethene	99.12	102.4	103	104.1	105	50-150	33-167	2	0-35	
t-1,2-Dichloroethene	99.12	101.4	102	101.2	102	50-150	33-167	0	0-35	
t-1,3-Dichloropropene	113.5	106.5	94	107.1	94	50-150	33-167	1	0-35	
Ethanol	188.4	163.6	87	173.4	92	50-150	33-167	6	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	91.65	88	93.23	89	50-150	33-167	2	0-35	
Ethylbenzene	108.6	102.0	94	102.5	94	52-154	35-171	0	0-38	

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: 12-06-1995
Preparation: N/A
Method: EPA TO-15

Project: ExxonMobil 99105/022783C

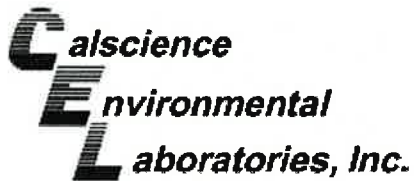
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number					
095-01-021-10,242	Air	GC/MS YY	N/A	07/02/12	120702L01					
Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
4-Ethyltoluene	122.9	102.4	83	104.2	85	50-150	33-167	2	0-35	
Hexachloro-1,3-Butadiene	266.6	246.3	92	246.7	93	50-150	33-167	0	0-35	
2-Hexanone	102.4	107.7	105	107.9	105	50-150	33-167	0	0-35	
Methyl-t-Butyl Ether (MTBE)	90.13	76.80	85	79.93	89	50-150	33-167	4	0-35	
Methylene Chloride	86.84	85.49	98	86.92	100	50-150	33-167	2	0-35	
4-Methyl-2-Pentanone	102.4	104.0	102	104.6	102	50-150	33-167	1	0-35	
Naphthalene	131.1	145.2	111	146.8	112	40-190	15-215	1	0-35	
Xylenes (total)	325.7	300.1	92	303.2	93	42-156	23-175	1	0-41	
Styrene	106.5	103.8	97	105.5	99	50-150	33-167	2	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	89.55	86	87.80	84	50-150	33-167	2	0-35	
Tert-Butyl Alcohol (TBA)	151.6	134.4	89	137.7	91	50-150	33-167	2	0-35	
Tetrachloroethene	169.6	169.0	100	170.7	101	56-152	40-168	1	0-40	
Toluene	94.21	95.09	101	96.20	102	56-146	41-161	1	0-43	
Trichloroethene	134.3	131.5	98	131.6	98	63-159	47-175	0	0-34	
Trichlorofluoromethane	140.5	116.4	83	116.8	83	50-150	33-167	0	0-35	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	183.5	96	185.7	97	50-150	33-167	1	0-35	
1,1,1-Trichloroethane	136.4	116.2	85	113.3	83	50-150	33-167	3	0-35	
1,1,2-Trichloroethane	136.4	133.1	98	133.5	98	65-149	51-163	0	0-37	
1,3,5-Trimethylbenzene	122.9	99.48	81	101.3	82	50-150	33-167	2	0-35	
1,1,2,2-Tetrachloroethane	171.6	156.2	91	158.4	92	50-150	33-167	1	0-35	
1,2,4-Trimethylbenzene	122.9	98.50	80	100.9	82	50-150	33-167	2	0-35	
1,2,4-Trichlorobenzene	185.5	207.0	112	208.4	112	50-150	33-167	1	0-35	
Vinyl Acetate	88.03	82.14	93	83.76	95	50-150	33-167	2	0-35	
Vinyl Chloride	63.91	56.07	88	56.72	89	45-177	23-199	1	0-36	

Total number of LCS compounds : 56
 Total number of ME compounds : 0
 Total number of ME compounds allowed : 3
 LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit





Summa Canister Vacuum Summary



Work Order Number: 12-06-1995

Sample Name	Vacuum In	Vacuum Out	Equipment	Description
SVS1	-5.00	-29.70	SLC018	Summa Canister 1L
SVS2	-5.00	-29.70	LC099	Summa Canister 1L
SVS3	-5.00	-29.70	SLC138	Summa Canister 1L
VW1	-5.00	-29.60	LC052	Summa Canister 1L
VW2	-5.00	-29.70	SLC129	Summa Canister 1L
VW4	-5.00	-29.60	LC170	Summa Canister 1L
VW4-Duplicate	-5.00	-29.60	LC285	Summa Canister 1L
VW5	-5.00	-29.60	LC353	Summa Canister 1L
Trip Blank	6.00	8.00	SLC017	Summa Canister 1L
Trip Blank	11.00	10.00	LC451	Summa Canister 1L



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Work Order Number: 12-06-1995

<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



Sandy Tat

From: Rebekah Westrup [rebekah.westrup@cardno.com]
Sent: Friday, July 06, 2012 9:23 AM
To: Sandy Tat
Subject: RE: ExxonMobil 99105/022783C (12-06-1995)

Ug/m3

Rebekah A. Westrup
SR STAFF GEOLOGIST
CARDNO ERI

Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-338-8555
Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA
Email rebekah.westrup@cardno.com Web www.cardno.com www.cardnoeri.com

From: Sandy Tat [<mailto:stat@calscience.com>]
Sent: Friday, July 06, 2012 9:24 AM
To: Rebekah Westrup
Subject: FW: ExxonMobil 99105/022783C (12-06-1995)
Importance: High

Hi Rebekah,

Please confirm the unit for TO-3M & TO-15 . Should we convert the unit to Ug/m3 or mg/m3? Please advise. Thanks,

Sandy Tat
Project Manager Assistant
(714) 895-5494

The difference is service

From: Rebekah Westrup [<mailto:rebekah.westrup@cardno.com>]
Sent: Monday, July 02, 2012 11:05 AM
To: Sandy Tat
Subject: RE: ExxonMobil 99105/022783C (12-06-1995)

Here you go.

Rebekah A. Westrup
SR STAFF GEOLOGIST
CARDNO ERI

Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-338-8555
Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA
Email rebekah.westrup@cardno.com Web www.cardno.com www.cardnoeri.com

From: Sandy Tat [<mailto:stat@calscience.com>]
Sent: Monday, July 02, 2012 11:06 AM
To: Rebekah Westrup
Subject: FW: ExxonMobil 99105/022783C (12-06-1995)

Hi Rebekah,

Thank you for your revised COC, but can you please change the FPN for sample Trip Blank to (QCTB) instead of TB?

Thanks,,,

Sandy Tat
Project Manager Assistant
(714) 895-5494

The difference is service

From: Rebekah Westrup [<mailto:rebekah.westrup@cardno.com>]
Sent: Monday, July 02, 2012 10:58 AM
To: Sandy Tat
Subject: RE: ExxonMobil 99105/022783C (12-06-1995)

Sandy,

Please see attached. Let me know if there are other questions

Rebekah A. Westrup
SR STAFF GEOLOGIST
CARDNO ERI

Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-338-8555
Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA
Email rebekah.westrup@cardno.com Web www.cardno.com www.cardnoeri.com

From: Sandy Tat [<mailto:stat@calscience.com>]
Sent: Monday, July 02, 2012 10:56 AM
To: Rebekah Westrup
Cc: Nadya Vicente
Subject: ExxonMobil 99105/022783C (12-06-1995)
Importance: High

Hi Rebekah / Nadya,

What is the ExxonMobil site for this work order? Is the site ExxonMobil 99105? Please advise. Please also verify the field point name for sample (VW4-duplicate), because the FPN is too long for geotracker.

Thanks,

Sandy Tat
Project Manager Assistant

 **CalScience**

7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494
www.calscience.com

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LABORATORY CLIENT: <u>Cardno ERI</u>		CLIENT PROJECT NAME / NUMBER: <u>022783C</u> Former Mobil Station 99105		P.O. NO.:	
ADDRESS: <u>601 N. McDowell Blvd</u>		PROJECT ADDRESS: <u>6301 San Pablo Ave</u>		LAB CONTACT OR QUOTE NO.:	
CITY: <u>Petaluma</u> STATE: <u>CA</u> ZIP: <u>94954</u>	CITY: <u>Oakland</u> STATE: <u>CA</u> ZIP: <u>94608</u>	PROJECT CONTACT: <u>Rebekah Westrup</u>		LAB USE ONLY: 12-06-1995	
TEL: <u>(707) 766-2000</u>	E-MAIL: <u>Rebekah.westrup@cardno.com</u>	SAMPLER(S): (NAME / SIGNATURE) <u>Nadya Vicente</u>		REQUESTED ANALYSES	
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS					

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
 EDD

SPECIAL INSTRUCTIONS:
Global ID - T0600101855
Full Scan VOCs include - BTEX, lead scavengers and naphthalene (EPA Method TO-15)
_____ items approved by R.A. Westrup

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment			Start Sampling Information			Stop Sampling Information			Tphg (EPA TO-3/15)	Full Scan VOC (TO-15)	Helium, oxygen & carbon diox, methanol	(ASTM Method 1946)
				Canister ID#	Canister Size 6L or 1L	Flow Controller ID #	Date	Time (24 hr clock)	Canister Pressure (Hg)	Date	Time (24 hr clock)	Canister Pressure (Hg)				
1	SVS1	SVS1	SV	SLC018	1L	A281	6-25-12	1701	30	6-25-12	1707	5	X	X	X	
2	SVS2	SVS2	SV	LC099	1L	A134	6-25-12	1603	30	6-25-12	1608	5				
3	SVS3	SVS3	SV	SLC138	1L	A331	6-25-12	1512	30	6-25-12	1518	5				
4	VW1	VW1	SV	LC052	1L	A19	6-26-12	1040	30	6-26-12	1100	5				
5	VW2	VW2	SV	SLC129	1L	A166	6-26-12	0825	30	6-26-12	0846	5				
6	VW4	VW4	SV	LC170	1L	A144	6-26-12	1314	30	6-26-12	1319	5				
7	VW4 - duplicate	VW4 - duplicate	SV	LC285	1L	A251	6-26-12	1320	30	6-26-12	1322	5				
8	VW5	VW5	SV	LC353	1L	A285	6-26-12	1219	30	6-26-12	1226	5				
9	Trip blank	Trip blank	SV	SLC017	1L	-	6-25-12	-	-	6-25-12	-	-				
10	Trip blank	Trip blank	SV	LC451	1L	-	6-26-12	-	-	6-26-12	-	-				
11																
12																
13																
14																
15																

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>Tom O'Malley, CER</u>	Date: <u>6/28/12</u>	Time: <u>1305</u>
Relinquished by: (Signature) <u>Tom O'Malley TO GSO 6/28/12 1730</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>6/29/12</u>	Time: <u>10:30</u>
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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LABORATORY CLIENT: <u>Cardno ERI</u>		CLIENT PROJECT NAME / NUMBER: <u>022783C</u>		P.O.NO.:	
ADDRESS: <u>601 N. McDowell Blvd</u>		PROJECT ADDRESS: <u>6301 San Pablo Ave</u>		LAB CONTACT OR QUOTE NO.:	
CITY: <u>Petaluma</u> STATE: <u>CA</u> ZIP: <u>94954</u>	CITY: <u>Oakland</u> STATE: <u>CA</u> ZIP: <u>94608</u>	PROJECT CONTACT: <u>Rebekah Westrup</u>		LAB USE ONLY: 12-06-1995 <input type="checkbox"/> <input type="checkbox"/>	
TEL: <u>(707) 766-2000</u> E-MAIL: <u>Rebekah.westrup@cardno.com</u>		SAMPLER(S): (NAME / SIGNATURE) <u>Nadya Vicente</u>		REQUESTED ANALYSES	
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS		SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) <input checked="" type="checkbox"/> EDD		Tphg (EPA TO-3/15) Full Scan Voc (TO-15) Helium, oxygen & carbon diox, methane (ASTM Method 1946)	
SPECIAL INSTRUCTIONS: <u>Global ID - T0600101855</u> <u>Full Scan VOCs include - BTEX, lead scavengers and naphthalene (EPA Method TO-15)</u>					

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type	Sampling Equipment			Start Sampling Information			Stop Sampling Information			Tphg (EPA TO-3/15)	Full Scan Voc (TO-15)	Helium, oxygen & carbon diox, methane (ASTM Method 1946)
			(I) Indoor (SV) Soil Vap. (A) Ambient	Canister ID#	Canister Size 6L or 1L	Flow Controller ID #	Date	Time (24 hr clock)	Canister Pressure (Hg)	Date	Time (24 hr clock)	Canister Pressure (Hg)			
1	SVS1	SVS1	SV	SLC018	1L	A281	6-25-12	1701	30	6-25-12	1707	5	X	X	X
2	SVS2	SVS2	SV	LL099	1L	A134	6-25-12	1603	30	6-25-12	1608	5			
3	SVS3	SVS3	SV	SLC138	1L	A331	6-25-12	1512	30	6-25-12	1518	5			
4	VW1	VW1	SV	LC052	1L	A19	6-26-12	1040	30	6-26-12	1100	5			
5	VW2	VW2	SV	SLC129	1L	A166	6-26-12	0825	30	6-26-12	0846	5			
6	VW4	VW4	SV	LC170	1L	A144	6-26-12	1314	30	6-26-12	1319	5			
7	VW4 - duplicate	VW4-duplicate	SV	LC285	1L	A251	6-26-12	1320	30	6-26-12	1322	5			
8	VW5	VW5	SV	LC353	1L	A285	6-26-12	1219	30	6-26-12	1226	5			
9	Trip blank	Trip blank	SV	SLC017	1L	-	6-25-12	-	-	6-25-12	-	-			
10	Trip blank	Trip blank	SV	LC451	1L	-	6-26-12	-	-	6-26-12	-	-			
11															
12															
13															
14															
15															

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>Tom Ormally CER</u>	Date: <u>6/28/12</u>	Time: <u>1305</u>
Relinquished by: (Signature) <u>Tom Ormally TO GSO 6/28/12 1730</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>6/29/12</u>	Time: <u>10:30</u>
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

1945

 <p>< WebShip > > > > 800-322-5555 www.gso.com</p>	<p>Tracking #: 519442221</p> 		<p>NPS</p>
	<p>ORC</p> <p>GARDEN GROVE</p>		
<p>Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520</p> <p>Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841</p> <p>COD: \$0.00</p> <p>Reference: CARDNO ERI</p> <p>Delivery Instructions:</p> <p>Signature Type: SIGNATURE REQUIRED</p>	<p>D92841A</p>  2559149		

Print Date : 06/28/12 16:15 PM

Package 2 of 2

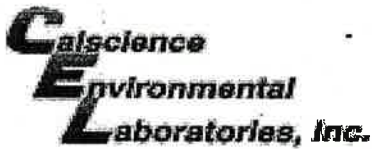
Print All

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 <p>< WebShip > > > > 800-322-5555 www.gso.com</p>	<p>Tracking #: 519442220</p> 		<p>NPS</p>
	<p>ORC</p> <p>GARDEN GROVE</p>		
<p>Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520</p> <p>Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841</p> <p>COD: \$0.00</p> <p>Reference: CARDNO ERI</p> <p>Delivery Instructions:</p> <p>Signature Type: SIGNATURE REQUIRED</p>	<p>D92841A</p>  2559148		

Print Date : 06/28/12 16:15 PM

Package 1 of 2



WORK ORDER #: **12-06-11999**

SAMPLE RECEIPT FORM

Box 1 of 2

CLIENT: CARDNO EPI

DATE: 06/29/12

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

Temperature _____ °C - 0.3 °C (CF) = _____ °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: JS

CUSTODY SEALS INTACT:

- Box _____ No (Not Intact) Not Present N/A
- Sample _____ No (Not Intact) Not Present

Initial: JS
Initial: TS

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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 VOA_h VOA_{na2} 125AGB 125AGB_h 125AGB_p 1AGB 1AGB_{na2} 1AGB_s

500AGB 500AGJ 500AGJ_s 250AGB 250CGB 250CGB_s 1PB 1PB_{na} 500PB

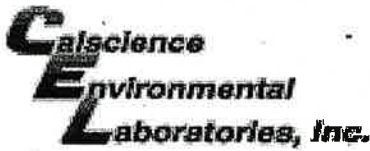
250PB 250PB_n 125PB 125PB_z 100PJ 100PJ_{na2} _____ _____ _____

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

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

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

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WORK ORDER #: 12-06-1995

SAMPLE RECEIPT FORM

Box 2 of 2

CLIENT: CARDNO ERI

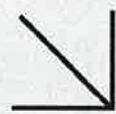
DATE: 06/29/12

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0°C - 6.0°C, not frozen)
Temperature . °C - 0.3°C (CF) = . °C
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: PS

CUSTODY SEALS INTACT:
Box No (Not Intact) Not Present N/A Initial: PS
Sample No (Not Intact) Not Present Initial: TS

SAMPLE CONDITION:
Chain-Of-Custody (COC) document(s) received with samples...
COC document(s) received complete...
Collection date/time, matrix, and/or # of containers logged in based on sample labels.
No analysis requested. Not relinquished. No date/time relinquished.
Sampler's name indicated on COC...
Sample container label(s) consistent with COC...
Sample container(s) intact and good condition...
Proper containers and sufficient volume for analyses requested...
Analyses received within holding time...
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...
Proper preservation noted on COC or sample container...
Unpreserved vials received for Volatiles analysis
Volatile analysis container(s) free of headspace...
Tedlar bag(s) free of condensation...
CONTAINER TYPE:
Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve () EnCores TerraCores
Water: VOA VOAh 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: TS
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by:
Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 u: Ultra-pure zanna: ZnAc2+NaOH f: Filtered Scanned by:

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CALSCIENCE

WORK ORDER NUMBER: 12-06-1457

The difference is service



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JUL 06 2012

AIR | SOIL | WATER | MARINE CHEMISTRY

BY:.....

Analytical Report For

Client: Cardno ERI

Client Project Name: ExxonMobil 99105/022783C

Attention: Rebekah Westrup
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Approved for release on 07/3/2012 by:
Cecile deGuia
Project Manager

ResultLink ▶

Email your PM ▶



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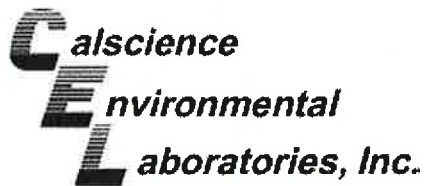




Contents

Client Project Name: ExxonMobil 99105/022783C
Work Order Number: 12-06-1457

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Analytical Report



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

Date Received: 06/21/12
Work Order No: 12-06-1457
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVS1	12-06-1457-1-A	06/18/12 11:45	Solid	GC 47	06/29/12	06/30/12 05:18	120629B07

Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	5.0	1	SG,U	mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
n-Octacosane	86	61-145			

S-5-SVS2	12-06-1457-2-A	06/18/12 11:50	Solid	GC 47	06/29/12	06/30/12 05:34	120629B07
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	5.0	1	SG,U	mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
n-Octacosane	83	61-145			

S-5-SVS3	12-06-1457-3-A	06/18/12 14:30	Solid	GC 47	06/29/12	06/30/12 05:49	120629B07
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	5.0	1	SG,U	mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
n-Octacosane	89	61-145			

Method Blank	099-15-422-35	N/A	Solid	GC 47	06/29/12	06/30/12 03:02	120629B07
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	5.0	1	U	mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
n-Octacosane	82	61-145			

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

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Analytical Report



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

Date Received: 06/21/12
 Work Order No: 12-06-1457
 Preparation: EPA 5030C
 Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVS1	12-06-1457-1-A	06/18/12 11:45	Solid	GC 18	06/25/12	06/26/12 13:40	120625B02

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	0.50	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene - FID	91	42-126	

S-5-SVS2	12-06-1457-2-A	06/18/12 11:50	Solid	GC 18	06/25/12	06/26/12 14:17	120625B02
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	0.50	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene - FID	91	42-126	

S-5-SVS3	12-06-1457-3-A	06/18/12 14:30	Solid	GC 18	06/25/12	06/26/12 14:54	120625B02
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	0.50	1	U	mg/kg

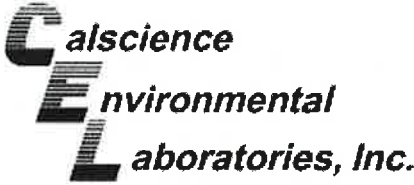
Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene - FID	92	42-126	

Method Blank	099-14-571-378	N/A	Solid	GC 18	06/25/12	06/26/12 00:33	120625B02
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	0.50	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene - FID	92	42-126	

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



Analytical Report



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

Date Received: 06/21/12
Work Order No: 12-06-1457
Preparation: EPA 5030C
Method: EPA 8260B
Units: mg/kg

Project: ExxonMobil 99105/022783C

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVS1	12-06-1457-1-A	06/18/12 11:45	Solid	GC/MS UU	06/21/12	06/21/12 19:09	120621L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1	U	Tert-Butyl Alcohol (TBA)	ND	0.050	1	U
Toluene	ND	0.0050	1	U	Diisopropyl Ether (DIPE)	ND	0.010	1	U
Ethylbenzene	ND	0.0050	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	U
Xylenes (total)	ND	0.0050	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	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	91	60-132			Dibromofluoromethane	103	63-141		
1,2-Dichloroethane-d4	99	62-146			Toluene-d8	101	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVS2	12-06-1457-2-A	06/18/12 11:50	Solid	GC/MS UU	06/21/12	06/21/12 19:36	120621L01

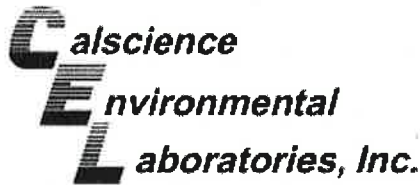
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1	U	Tert-Butyl Alcohol (TBA)	ND	0.050	1	U
Toluene	ND	0.0050	1	U	Diisopropyl Ether (DIPE)	ND	0.010	1	U
Ethylbenzene	ND	0.0050	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	U
Xylenes (total)	ND	0.0050	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	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	60-132			Dibromofluoromethane	102	63-141		
1,2-Dichloroethane-d4	99	62-146			Toluene-d8	101	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVS3	12-06-1457-3-A	06/18/12 14:30	Solid	GC/MS UU	06/21/12	06/21/12 20:02	120621L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1	U	Tert-Butyl Alcohol (TBA)	ND	0.050	1	U
Toluene	ND	0.0050	1	U	Diisopropyl Ether (DIPE)	ND	0.010	1	U
Ethylbenzene	ND	0.0050	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	U
Xylenes (total)	ND	0.0050	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	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	60-132			Dibromofluoromethane	101	63-141		
1,2-Dichloroethane-d4	102	62-146			Toluene-d8	100	80-120		

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

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Analytical Report



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

Date Received: 06/21/12
Work Order No: 12-06-1457
Preparation: EPA 5030C
Method: EPA 8260B
Units: mg/kg

Project: ExxonMobil 99105/022783C

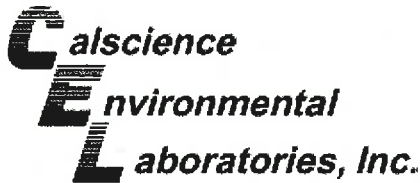
Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-882-1,349	N/A	Solid	GC/MS UU	06/21/12	06/21/12 14:41	120621L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1	U	Tert-Butyl Alcohol (TBA)	ND	0.050	1	U
Toluene	ND	0.0050	1	U	Diisopropyl Ether (DIPE)	ND	0.010	1	U
Ethylbenzene	ND	0.0050	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	U
Xylenes (total)	ND	0.0050	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	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	60-132			Dibromofluoromethane	101	63-141		
1,2-Dichloroethane-d4	96	62-146			Toluene-d8	100	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: 06/21/12
Work Order No: 12-06-1457
Preparation: EPA 3550B
Method: EPA 8015B (M)

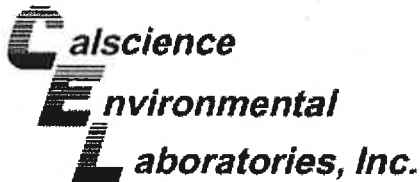
Project ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-06-1458-1	Solid	GC 47	06/29/12	06/30/12	120629S07

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	380.1	95	370.6	93	64-130	3	0-15	

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: 06/21/12
Work Order No: 12-06-1457
Preparation: EPA 5030C
Method: EPA 8015B (M)

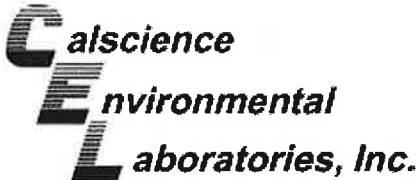
Project ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-06-1507-1	Solid	GC 18	06/25/12	06/26/12	120625S02

Parameter	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> <u>ADDED</u>	<u>MS</u> <u>CONC</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>CONC</u>	<u>MSD</u> <u>%REC</u>	<u>%REC</u> CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	10.00	9.799	98	9.764	98	48-114	0	0-23	

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: 06/21/12
Work Order No: 12-06-1457
Preparation: EPA 5030C
Method: EPA 8260B

Project ExxonMobil 99105/022783C

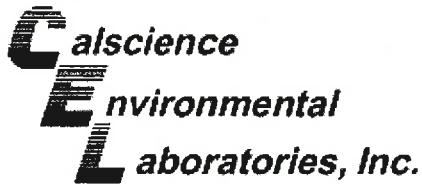
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Table with 11 columns: Parameter, SAMPLE CONC, SPIKE ADDED, MS CONC, MS %REC, MSD CONC, MSD %REC, %REC CL, RPD, RPD CL, Qualifiers. Rows include Benzene, Toluene, Ethylbenzene, Methyl-t-Butyl Ether (MTBE), Tert-Butyl Alcohol (TBA), Diisopropyl Ether (DIPE), Ethyl-t-Butyl Ether (ETBE), Tert-Amyl-Methyl Ether (TAME).

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Handwritten signature



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 12-06-1457
Preparation: EPA 3550B
Method: EPA 8015B (M)

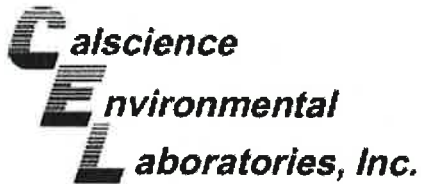
Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-422-35	Solid	GC 47	06/29/12	06/30/12	120629B07

Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Diesel	400.0	365.5	91	374.5	94	75-123	2	0-12	

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RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Cardno ERI	Date Received:	N/A
601 North McDowell Blvd.	Work Order No:	12-06-1457
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)

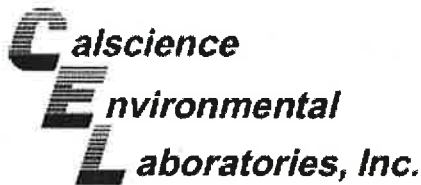
Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-571-378	Solid	GC 18	06/25/12	06/26/12	120625B02

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	10.00	8.638	86	9.282	93	70-124	7	0-18	

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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: 12-06-1457
Preparation: EPA 5030C
Method: EPA 8260B

Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-882-1,349	Solid	GC/MS UU	06/21/12	06/21/12	120621L01

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.05463	109	0.05394	108	78-120	1	0-20	
Toluene	0.05000	0.05617	112	0.05641	113	77-120	0	0-20	
Ethylbenzene	0.05000	0.05629	113	0.05475	109	76-120	3	0-20	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04832	97	0.04768	95	77-120	1	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.2648	106	0.2559	102	68-122	3	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.05082	102	0.05036	101	78-120	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.05138	103	0.05031	101	78-120	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.05153	103	0.05157	103	75-120	0	0-20	

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RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 12-06-1457

<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



Sandy Tat

From: Rebekah Westrup [rebekah.westrup@cardno.com]
Sent: Monday, June 25, 2012 3:53 PM
To: Sandy Tat
Cc: Elizabeth Hughes; Nadya Vicente; ERI-EIMLABS
Subject: RE: COCs received on 06/21/12
Attachments: 12-06-1457 Revised.pdf; 12-06-1458 revised.pdf

Here are the COC revisions 12-06-1459 appears to have been correct. I made revisions to the other COCs

Rebekah A. Westrup

SR STAFF GEOLOGIST
 CARDNO ERI

Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-338-8555
 Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA
 Email rebekah.westrup@cardno.com Web www.cardno.com www.cardnoeri.com

From: Elizabeth Hughes
Sent: Monday, June 25, 2012 11:33 AM
To: Rebekah Westrup; Nadya Vicente
Subject: FW: COCs received on 06/21/12

Hi Rebekah/Nadya,

I have attached COCs for your review per below. The lab has not yet finalized the reports, so if any changes are necessary, please submit the revised COCs to the lab as soon as possible so that revised PDFs and EDDs do not have to be generated (the further along in the process that the corrections are made, the more time has to be spent).

12-06-1457 - Please verify the Global ID- according to my records, it should be T0600101855. Also, the locations in the Sample IDs should match the Field Point Names for samples 2 and 3 "S-5-SVS 2" and "S-5-SVS 3" should be "S-5-SVS2" and "S-5-SVS3" (I know this may seem particular, but it does actually matter in the EM system). Please submit a revised COC to the lab and CC' ERI-EIMLABS@cardno.com

12-06-1458 & 12-06-1459 - Please verify the Global ID and submit revised COCs to the lab if there are changes (please CC' ERI-EIMLABS@cardno.com).

Please let me know if you have any questions.

Thank you for your help!

Elizabeth Hughes

SR STAFF COORDINATOR
 DATA MANAGER
 CARDNO ERI

Phone (+1) 949-457-8950 Fax (+1) 949-457-8956 Direct (+1) 949-273-5489
 Address 25371 Commercentre Dr. Suite 250, Lake Forest, CA 92630 USA
 Email elizabeth.hughes@cardno.com Web www.cardno.com www.cardnoeri.com

From: Sandy Tat [<mailto:stat@calscience.com>]
Sent: Friday, June 22, 2012 5:45 PM
To: Elizabeth Hughes
Subject: COCs received on 06/21/12

Here you go. Thanks!

Sandy Tat
Project Manager Assistant



7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494
www.calscience.com



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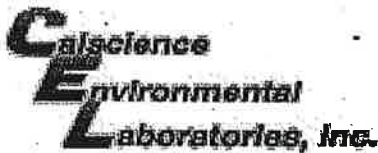
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1457

	<p align="center">< WebShip > > > > 800-322-5555 www.gso.com</p>	
<p>Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520</p>	<p>Tracking #: 519375985 </p>	<p align="center">NPS</p>
<p>Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841</p>	<p align="center">ORC</p> <p align="center">GARDEN GROVE</p> <p align="right">A</p>	
<p>COD: \$0.00</p>	<p align="center">D92841A</p>	
<p>Reference: CARDNO ERI</p>	<p align="center"></p> <p align="center">2323097</p>	
<p>Delivery Instructions:</p> <p>Signature Type: SIGNATURE REQUIRED</p>	<p align="right">Print Date : 06/20/12 13:43 PM</p>	

Package 1 of 1

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WORK ORDER #: 12-06-11457

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Cardmo ERI

DATE: 06/21/12

TEMPERATURE: Thermometer ID: SC2 (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: MC

CUSTODY SEALS INTACT:

- Cooler _____ No (Not Intact) Not Present N/A
- Sample _____ No (Not Intact) Not Present

Initial: MC

Initial: YC

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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 (S) EnCores® TerraCores® _____

Water: VOA VOA_h VOA_{na2} 125AGB 125AGB_h 125AGB_p 1AGB 1AGB_{na2} 1AGB_s

500AGB 500AGJ 500AGJ_s 250AGB 250CGB 250CGB_s 1PB 1PB_{na} 500PB

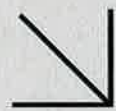
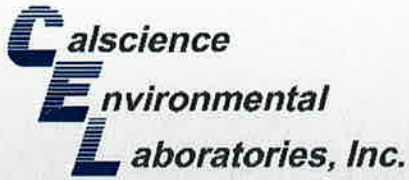
250PB 250PB_n 125PB 125PB_{znna} 100PJ 100PJ_{na2} _____ _____ _____

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

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

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

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CALSCIENCE

WORK ORDER NUMBER: 12-06-1458

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno ERI

Client Project Name: ExxonMobil 99105/022783C

Attention: Rebekah Westrup
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Cecile L. de Guia

Approved for release on 07/9/2012 by:
Cecile deGuia
Project Manager

ResultLink ▶

Email your PM ▶



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Work Order Number: 12-06-1458

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Analytical Report



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

Date Received: 06/21/12
Work Order No: 12-06-1458
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-SP1-1	12-06-1458-1-A	06/19/12 09:00	Solid	GC 47	06/29/12	06/30/12 04:17	120629B07

Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	5.0	1	SG,U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
n-Octacosane	78	61-145	

S-SP1-2	12-06-1458-2-A	06/19/12 09:02	Solid	GC 47	06/29/12	06/30/12 04:33	120629B07
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	5.0	1	SG,U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
n-Octacosane	83	61-145	

S-SP1-3	12-06-1458-3-A	06/19/12 09:04	Solid	GC 47	06/29/12	06/30/12 04:48	120629B07
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	5.7	5.0	1	SG	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
n-Octacosane	78	61-145	

S-SP1-4	12-06-1458-4-A	06/19/12 09:05	Solid	GC 47	06/29/12	06/30/12 05:04	120629B07
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	ND	5.0	1	SG,U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
n-Octacosane	81	61-145	

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

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Analytical Report



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

Date Received: 06/21/12
 Work Order No: 12-06-1458
 Preparation: EPA 3550B
 Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-422-35	N/A	Solid	GC 47	06/29/12	06/30/12 03:02	120629B07

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
TPH as Diesel	ND	5.0	1	U	mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
n-Octacosane	82	61-145			

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

Analytical Report



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

Date Received: 06/21/12
 Work Order No: 12-06-1458
 Preparation: EPA 5030C
 Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-SP1-1	12-06-1458-1-A	06/19/12 09:00	Solid	GC 18	06/25/12	06/26/12 16:10	120625B02

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	0.50	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene - FID	80	42-126	

S-SP1-2	12-06-1458-2-A	06/19/12 09:02	Solid	GC 18	06/25/12	06/26/12 16:47	120625B02
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	0.50	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene - FID	91	42-126	

S-SP1-3	12-06-1458-3-A	06/19/12 09:04	Solid	GC 18	06/25/12	06/26/12 17:25	120625B02
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	0.50	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene - FID	92	42-126	

S-SP1-4	12-06-1458-4-A	06/19/12 09:05	Solid	GC 18	06/25/12	06/26/12 18:02	120625B02
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	0.50	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene - FID	89	42-126	

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

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Analytical Report



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

Date Received: 06/21/12
 Work Order No: 12-06-1458
 Preparation: EPA 5030C
 Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-571-378	N/A	Solid	GC 18	06/25/12	06/26/12 00:33	120625B02

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
TPH as Gasoline	ND	0.50	1	U	mg/kg

<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>
1,4-Bromofluorobenzene - FID	92	42-126	

Return to Contents

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

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

Date Received: 06/21/12
Work Order No: 12-06-1458
Preparation: EPA 5030C
Method: EPA 8260B
Units: mg/kg

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-SP1-1	12-06-1458-1-A	06/19/12 09:00	Solid	GC/MS UU	06/21/12	06/28/12 21:04	120628L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1	U	2-Chlorotoluene	ND	0.0050	1	U
Toluene	ND	0.0050	1	U	4-Chlorotoluene	ND	0.0050	1	U
Ethylbenzene	ND	0.0050	1	U	4-Methyl-2-Pentanone	ND	0.050	1	U
Xylenes (total)	ND	0.0050	1	U	Acetone	ND	0.12	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1	U	Bromobenzene	ND	0.0050	1	U
Tert-Butyl Alcohol (TBA)	ND	0.050	1	U	Bromochloromethane	ND	0.0050	1	U
Diisopropyl Ether (DIPE)	ND	0.010	1	U	Bromoform	ND	0.0050	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	U	Bromomethane	ND	0.025	1	U
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	U	Carbon Disulfide	ND	0.050	1	U
1,1,1,2-Tetrachloroethane	ND	0.0050	1	U	Carbon Tetrachloride	ND	0.0050	1	U
1,1,1-Trichloroethane	ND	0.0050	1	U	Chlorobenzene	ND	0.0050	1	U
1,1,2,2-Tetrachloroethane	ND	0.0050	1	U	Dibromochloromethane	ND	0.0050	1	U
1,1,2-Trichloroethane	ND	0.0050	1	U	Chloroethane	ND	0.0050	1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1	U	Chloroform	ND	0.0050	1	U
1,1-Dichloroethane	ND	0.0050	1	U	Chloromethane	ND	0.025	1	U
1,1-Dichloroethene	ND	0.0050	1	U	Dibromomethane	ND	0.0050	1	U
1,1-Dichloropropene	ND	0.0050	1	U	Bromodichloromethane	ND	0.0050	1	U
1,2,3-Trichlorobenzene	ND	0.010	1	U	Dichlorodifluoromethane	ND	0.0050	1	U
1,2,3-Trichloropropane	ND	0.0050	1	U	Hexachloro-1,3-Butadiene	ND	0.10	1	U
1,2,4-Trichlorobenzene	ND	0.0050	1	U	Isopropylbenzene	ND	0.0050	1	U
1,2,4-Trimethylbenzene	ND	0.0050	1	U	2-Butanone	ND	0.050	1	U
1,3,5-Trimethylbenzene	ND	0.0050	1	U	Methylene Chloride	ND	0.050	1	U
c-1,2-Dichloroethene	ND	0.0050	1	U	2-Hexanone	ND	0.050	1	U
1,2-Dibromo-3-Chloropropane	ND	0.010	1	U	Naphthalene	ND	0.050	1	U
1,2-Dibromoethane	ND	0.0050	1	U	n-Butylbenzene	ND	0.0050	1	U
1,2-Dichlorobenzene	ND	0.0050	1	U	n-Propylbenzene	ND	0.0050	1	U
1,2-Dichloroethane	ND	0.0050	1	U	p-Isopropyltoluene	ND	0.0050	1	U
1,2-Dichloropropane	ND	0.0050	1	U	sec-Butylbenzene	ND	0.0050	1	U
t-1,2-Dichloroethene	ND	0.0050	1	U	Styrene	ND	0.0050	1	U
c-1,3-Dichloropropene	ND	0.0050	1	U	tert-Butylbenzene	ND	0.0050	1	U
1,3-Dichlorobenzene	ND	0.0050	1	U	Tetrachloroethene	ND	0.0050	1	U
1,3-Dichloropropane	ND	0.0050	1	U	Trichloroethene	ND	0.0050	1	U
t-1,3-Dichloropropene	ND	0.0050	1	U	Trichlorofluoromethane	ND	0.050	1	U
1,4-Dichlorobenzene	ND	0.0050	1	U	Vinyl Chloride	ND	0.0050	1	U
2,2-Dichloropropane	ND	0.0050	1	U					
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	92	60-132			Dibromofluoromethane	108	63-141		
1,2-Dichloroethane-d4	115	62-146			Toluene-d8	100	80-120		

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: 06/21/12
 Work Order No: 12-06-1458
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: mg/kg

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-SP1-2	12-06-1458-2-A	06/19/12 09:02	Solid	GC/MS UU	06/21/12	06/28/12 21:30	120628L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1	U	2-Chlorotoluene	ND	0.0050	1	U
Toluene	ND	0.0050	1	U	4-Chlorotoluene	ND	0.0050	1	U
Ethylbenzene	ND	0.0050	1	U	4-Methyl-2-Pentanone	ND	0.050	1	U
Xylenes (total)	ND	0.0050	1	U	Acetone	ND	0.12	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1	U	Bromobenzene	ND	0.0050	1	U
Tert-Butyl Alcohol (TBA)	ND	0.050	1	U	Bromochloromethane	ND	0.0050	1	U
Diisopropyl Ether (DIPE)	ND	0.010	1	U	Bromoform	ND	0.0050	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	U	Bromomethane	ND	0.025	1	U
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	U	Carbon Disulfide	ND	0.050	1	U
1,1,1,2-Tetrachloroethane	ND	0.0050	1	U	Carbon Tetrachloride	ND	0.0050	1	U
1,1,1-Trichloroethane	ND	0.0050	1	U	Chlorobenzene	ND	0.0050	1	U
1,1,2,2-Tetrachloroethane	ND	0.0050	1	U	Dibromochloromethane	ND	0.0050	1	U
1,1,2-Trichloroethane	ND	0.0050	1	U	Chloroethane	ND	0.0050	1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1	U	Chloroform	ND	0.0050	1	U
1,1-Dichloroethane	ND	0.0050	1	U	Chloromethane	ND	0.025	1	U
1,1-Dichloroethene	ND	0.0050	1	U	Dibromomethane	ND	0.0050	1	U
1,1-Dichloropropene	ND	0.0050	1	U	Bromodichloromethane	ND	0.0050	1	U
1,2,3-Trichlorobenzene	ND	0.010	1	U	Dichlorodifluoromethane	ND	0.0050	1	U
1,2,3-Trichloropropene	ND	0.0050	1	U	Hexachloro-1,3-Butadiene	ND	0.10	1	U
1,2,4-Trichlorobenzene	ND	0.0050	1	U	Isopropylbenzene	ND	0.0050	1	U
1,2,4-Trimethylbenzene	ND	0.0050	1	U	2-Butanone	ND	0.050	1	U
1,3,5-Trimethylbenzene	ND	0.0050	1	U	Methylene Chloride	ND	0.050	1	U
c-1,2-Dichloroethene	ND	0.0050	1	U	2-Hexanone	ND	0.050	1	U
1,2-Dibromo-3-Chloropropane	ND	0.010	1	U	Naphthalene	ND	0.050	1	U
1,2-Dibromoethane	ND	0.0050	1	U	n-Butylbenzene	ND	0.0050	1	U
1,2-Dichlorobenzene	ND	0.0050	1	U	n-Propylbenzene	ND	0.0050	1	U
1,2-Dichloroethane	ND	0.0050	1	U	p-Isopropyltoluene	ND	0.0050	1	U
1,2-Dichloropropane	ND	0.0050	1	U	sec-Butylbenzene	ND	0.0050	1	U
t-1,2-Dichloroethene	ND	0.0050	1	U	Styrene	ND	0.0050	1	U
c-1,3-Dichloropropene	ND	0.0050	1	U	tert-Butylbenzene	ND	0.0050	1	U
1,3-Dichlorobenzene	ND	0.0050	1	U	Tetrachloroethene	ND	0.0050	1	U
1,3-Dichloropropane	ND	0.0050	1	U	Trichloroethene	ND	0.0050	1	U
t-1,3-Dichloropropene	ND	0.0050	1	U	Trichlorofluoromethane	ND	0.050	1	U
1,4-Dichlorobenzene	ND	0.0050	1	U	Vinyl Chloride	ND	0.0050	1	U
2,2-Dichloropropane	ND	0.0050	1	U					
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	92	60-132			Dibromofluoromethane	105	63-141		
1,2-Dichloroethane-d4	112	62-146			Toluene-d8	101	80-120		

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: 06/21/12
Work Order No: 12-06-1458
Preparation: EPA 5030C
Method: EPA 8260B
Units: mg/kg

Project: ExxonMobil 99105/022783C

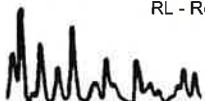
Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-SP1-3	12-06-1458-3-A	06/19/12 09:04	Solid	GC/MS UU	06/21/12	06/28/12 21:56	120628L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1	U	2-Chlorotoluene	ND	0.0050	1	U
Toluene	ND	0.0050	1	U	4-Chlorotoluene	ND	0.0050	1	U
Ethylbenzene	ND	0.0050	1	U	4-Methyl-2-Pentanone	ND	0.050	1	U
Xylenes (total)	ND	0.0050	1	U	Acetone	ND	0.12	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1	U	Bromobenzene	ND	0.0050	1	U
Tert-Butyl Alcohol (TBA)	ND	0.050	1	U	Bromochloromethane	ND	0.0050	1	U
Diisopropyl Ether (DIPE)	ND	0.010	1	U	Bromoform	ND	0.0050	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	U	Bromomethane	ND	0.025	1	U
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	U	Carbon Disulfide	ND	0.050	1	U
1,1,1,2-Tetrachloroethane	ND	0.0050	1	U	Carbon Tetrachloride	ND	0.0050	1	U
1,1,1-Trichloroethane	ND	0.0050	1	U	Chlorobenzene	ND	0.0050	1	U
1,1,2,2-Tetrachloroethane	ND	0.0050	1	U	Dibromochloromethane	ND	0.0050	1	U
1,1,2-Trichloroethane	ND	0.0050	1	U	Chloroethane	ND	0.0050	1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1	U	Chloroform	ND	0.0050	1	U
1,1-Dichloroethane	ND	0.0050	1	U	Chloromethane	ND	0.025	1	U
1,1-Dichloroethene	ND	0.0050	1	U	Dibromomethane	ND	0.0050	1	U
1,1-Dichloropropene	ND	0.0050	1	U	Bromodichloromethane	ND	0.0050	1	U
1,2,3-Trichlorobenzene	ND	0.010	1	U	Dichlorodifluoromethane	ND	0.0050	1	U
1,2,3-Trichloropropane	ND	0.0050	1	U	Hexachloro-1,3-Butadiene	ND	0.10	1	U
1,2,4-Trichlorobenzene	ND	0.0050	1	U	Isopropylbenzene	ND	0.0050	1	U
1,2,4-Trimethylbenzene	ND	0.0050	1	U	2-Butanone	ND	0.050	1	U
1,3,5-Trimethylbenzene	ND	0.0050	1	U	Methylene Chloride	ND	0.050	1	U
c-1,2-Dichloroethene	ND	0.0050	1	U	2-Hexanone	ND	0.050	1	U
1,2-Dibromo-3-Chloropropane	ND	0.010	1	U	Naphthalene	ND	0.050	1	U
1,2-Dibromoethane	ND	0.0050	1	U	n-Butylbenzene	ND	0.0050	1	U
1,2-Dichlorobenzene	ND	0.0050	1	U	n-Propylbenzene	ND	0.0050	1	U
1,2-Dichloroethane	ND	0.0050	1	U	p-Isopropyltoluene	ND	0.0050	1	U
1,2-Dichloropropane	ND	0.0050	1	U	sec-Butylbenzene	ND	0.0050	1	U
t-1,2-Dichloroethene	ND	0.0050	1	U	Styrene	ND	0.0050	1	U
c-1,3-Dichloropropene	ND	0.0050	1	U	tert-Butylbenzene	ND	0.0050	1	U
1,3-Dichlorobenzene	ND	0.0050	1	U	Tetrachloroethene	ND	0.0050	1	U
1,3-Dichloropropane	ND	0.0050	1	U	Trichloroethene	ND	0.0050	1	U
t-1,3-Dichloropropene	ND	0.0050	1	U	Trichlorofluoromethane	ND	0.050	1	U
1,4-Dichlorobenzene	ND	0.0050	1	U	Vinyl Chloride	ND	0.0050	1	U
2,2-Dichloropropane	ND	0.0050	1	U					
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	92	60-132			Dibromofluoromethane	106	63-141		
1,2-Dichloroethane-d4	110	62-146			Toluene-d8	103	80-120		

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



Analytical Report



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

Date Received: 06/21/12
 Work Order No: 12-06-1458
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: mg/kg

Project: ExxonMobil 99105/022783C

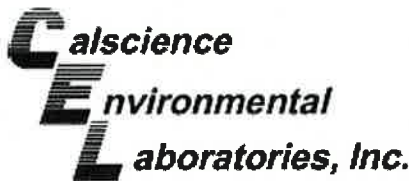
Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-SP1-4	12-06-1458-4-A	06/19/12 09:05	Solid	GC/MS UU	06/21/12	06/28/12 22:23	120628L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1	U	2-Chlorotoluene	ND	0.0050	1	U
Toluene	ND	0.0050	1	U	4-Chlorotoluene	ND	0.0050	1	U
Ethylbenzene	ND	0.0050	1	U	4-Methyl-2-Pentanone	ND	0.050	1	U
Xylenes (total)	ND	0.0050	1	U	Acetone	ND	0.12	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1	U	Bromobenzene	ND	0.0050	1	U
Tert-Butyl Alcohol (TBA)	ND	0.050	1	U	Bromochloromethane	ND	0.0050	1	U
Diisopropyl Ether (DIPE)	ND	0.010	1	U	Bromoform	ND	0.0050	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	U	Bromomethane	ND	0.025	1	U
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	U	Carbon Disulfide	ND	0.050	1	U
1,1,1,2-Tetrachloroethane	ND	0.0050	1	U	Carbon Tetrachloride	ND	0.0050	1	U
1,1,1-Trichloroethane	ND	0.0050	1	U	Chlorobenzene	ND	0.0050	1	U
1,1,2,2-Tetrachloroethane	ND	0.0050	1	U	Dibromochloromethane	ND	0.0050	1	U
1,1,2-Trichloroethane	ND	0.0050	1	U	Chloroethane	ND	0.0050	1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1	U	Chloroform	ND	0.0050	1	U
1,1-Dichloroethane	ND	0.0050	1	U	Chloromethane	ND	0.025	1	U
1,1-Dichloroethene	ND	0.0050	1	U	Dibromomethane	ND	0.0050	1	U
1,1-Dichloropropene	ND	0.0050	1	U	Bromodichloromethane	ND	0.0050	1	U
1,2,3-Trichlorobenzene	ND	0.010	1	U	Dichlorodifluoromethane	ND	0.0050	1	U
1,2,3-Trichloropropane	ND	0.0050	1	U	Hexachloro-1,3-Butadiene	ND	0.10	1	U
1,2,4-Trichlorobenzene	ND	0.0050	1	U	Isopropylbenzene	ND	0.0050	1	U
1,2,4-Trimethylbenzene	ND	0.0050	1	U	2-Butanone	ND	0.050	1	U
1,3,5-Trimethylbenzene	ND	0.0050	1	U	Methylene Chloride	ND	0.050	1	U
c-1,2-Dichloroethene	ND	0.0050	1	U	2-Hexanone	ND	0.050	1	U
1,2-Dibromo-3-Chloropropane	ND	0.010	1	U	Naphthalene	ND	0.050	1	U
1,2-Dibromoethane	ND	0.0050	1	U	n-Butylbenzene	ND	0.0050	1	U
1,2-Dichlorobenzene	ND	0.0050	1	U	n-Propylbenzene	ND	0.0050	1	U
1,2-Dichloroethane	ND	0.0050	1	U	p-Isopropyltoluene	ND	0.0050	1	U
1,2-Dichloropropane	ND	0.0050	1	U	sec-Butylbenzene	ND	0.0050	1	U
t-1,2-Dichloroethene	ND	0.0050	1	U	Styrene	ND	0.0050	1	U
c-1,3-Dichloropropene	ND	0.0050	1	U	tert-Butylbenzene	ND	0.0050	1	U
1,3-Dichlorobenzene	ND	0.0050	1	U	Tetrachloroethene	ND	0.0050	1	U
1,3-Dichloropropane	ND	0.0050	1	U	Trichloroethene	ND	0.0050	1	U
t-1,3-Dichloropropene	ND	0.0050	1	U	Trichlorofluoromethane	ND	0.050	1	U
1,4-Dichlorobenzene	ND	0.0050	1	U	Vinyl Chloride	ND	0.0050	1	U
2,2-Dichloropropane	ND	0.0050	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	92	60-132			Dibromofluoromethane	108	63-141		
1,2-Dichloroethane-d4	116	62-146			Toluene-d8	101	80-120		

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: 06/21/12
Work Order No: 12-06-1458
Preparation: EPA 5030C
Method: EPA 8260B
Units: mg/kg

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-882-1,352	N/A	Solid	GC/MS UU	06/28/12	06/28/12 14:30	120628L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1	U	2-Chlorotoluene	ND	0.0050	1	U
Toluene	ND	0.0050	1	U	4-Chlorotoluene	ND	0.0050	1	U
Ethylbenzene	ND	0.0050	1	U	4-Methyl-2-Pentanone	ND	0.050	1	U
Xylenes (total)	ND	0.0050	1	U	Acetone	ND	0.12	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1	U	Bromobenzene	ND	0.0050	1	U
Tert-Butyl Alcohol (TBA)	ND	0.050	1	U	Bromochloromethane	ND	0.0050	1	U
Diisopropyl Ether (DIPE)	ND	0.010	1	U	Bromoform	ND	0.0050	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	U	Bromomethane	ND	0.025	1	U
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	U	Carbon Disulfide	ND	0.050	1	U
1,1,1,2-Tetrachloroethane	ND	0.0050	1	U	Carbon Tetrachloride	ND	0.0050	1	U
1,1,1-Trichloroethane	ND	0.0050	1	U	Chlorobenzene	ND	0.0050	1	U
1,1,2,2-Tetrachloroethane	ND	0.0050	1	U	Dibromochloromethane	ND	0.0050	1	U
1,1,2-Trichloroethane	ND	0.0050	1	U	Chloroethane	ND	0.0050	1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1	U	Chloroform	ND	0.0050	1	U
1,1-Dichloroethane	ND	0.0050	1	U	Chloromethane	ND	0.025	1	U
1,1-Dichloroethene	ND	0.0050	1	U	Dibromomethane	ND	0.0050	1	U
1,1-Dichloropropene	ND	0.0050	1	U	Bromodichloromethane	ND	0.0050	1	U
1,2,3-Trichlorobenzene	ND	0.010	1	U	Dichlorodifluoromethane	ND	0.0050	1	U
1,2,3-Trichloropropane	ND	0.0050	1	U	Hexachloro-1,3-Butadiene	ND	0.10	1	U
1,2,4-Trichlorobenzene	ND	0.0050	1	U	Isopropylbenzene	ND	0.0050	1	U
1,2,4-Trimethylbenzene	ND	0.0050	1	U	2-Butanone	ND	0.050	1	U
1,3,5-Trimethylbenzene	ND	0.0050	1	U	Methylene Chloride	ND	0.050	1	U
c-1,2-Dichloroethene	ND	0.0050	1	U	2-Hexanone	ND	0.050	1	U
1,2-Dibromo-3-Chloropropane	ND	0.010	1	U	Naphthalene	ND	0.050	1	U
1,2-Dibromoethane	ND	0.0050	1	U	n-Butylbenzene	ND	0.0050	1	U
1,2-Dichlorobenzene	ND	0.0050	1	U	n-Propylbenzene	ND	0.0050	1	U
1,2-Dichloroethane	ND	0.0050	1	U	p-Isopropyltoluene	ND	0.0050	1	U
1,2-Dichloropropane	ND	0.0050	1	U	sec-Butylbenzene	ND	0.0050	1	U
t-1,2-Dichloroethene	ND	0.0050	1	U	Styrene	ND	0.0050	1	U
c-1,3-Dichloropropene	ND	0.0050	1	U	tert-Butylbenzene	ND	0.0050	1	U
1,3-Dichlorobenzene	ND	0.0050	1	U	Tetrachloroethene	ND	0.0050	1	U
1,3-Dichloropropane	ND	0.0050	1	U	Trichloroethene	ND	0.0050	1	U
t-1,3-Dichloropropene	ND	0.0050	1	U	Trichlorofluoromethane	ND	0.050	1	U
1,4-Dichlorobenzene	ND	0.0050	1	U	Vinyl Chloride	ND	0.0050	1	U
2,2-Dichloropropane	ND	0.0050	1	U					
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	91	60-132			Dibromofluoromethane	102	63-141		
1,2-Dichloroethane-d4	104	62-146			Toluene-d8	97	80-120		

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

Analytical Report



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

Date Received: 06/21/12
 Work Order No: 12-06-1458
 Preparation: EPA 3050B
 Method: EPA 6010B

Project: ExxonMobil 99105/022783C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-SP1-1	12-06-1458-1-A	06/19/12 09:00	Solid	ICP 7300	07/06/12	07/06/12 18:59	120706L01

Parameter	Result	RL	DF	Qual	Units
Lead	16.1	0.500	1		mg/kg

S-SP1-2	12-06-1458-2-A	06/19/12 09:02	Solid	ICP 7300	07/06/12	07/06/12 19:01	120706L01
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Parameter	Result	RL	DF	Qual	Units
Lead	24.4	0.500	1		mg/kg

S-SP1-3	12-06-1458-3-A	06/19/12 09:04	Solid	ICP 7300	07/06/12	07/06/12 19:37	120706L01
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Parameter	Result	RL	DF	Qual	Units
Lead	12.7	0.500	1		mg/kg

S-SP1-4	12-06-1458-4-A	06/19/12 09:05	Solid	ICP 7300	07/06/12	07/06/12 19:39	120706L01
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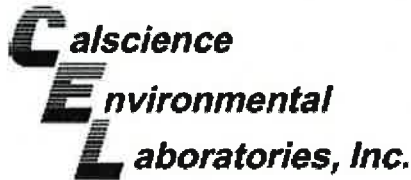
Parameter	Result	RL	DF	Qual	Units
Lead	21.5	0.500	1		mg/kg

Method Blank	097-01-002-15,970	N/A		Solid	ICP 7300	07/06/12 18:20	120706L01
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Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1	U	mg/kg

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: 06/21/12
Work Order No: 12-06-1458
Preparation: EPA 3050B
Method: EPA 6010B

Project ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-07-0217-1	Solid	ICP 7300	07/06/12	07/06/12	120706S01

Parameter	<u>SAMPLE CONC</u>	<u>SPIKE ADDED</u>	<u>MS CONC</u>	<u>MS %REC</u>	<u>MSD CONC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Lead	2.436	25.00	28.25	103	28.06	103	75-125	1	0-20	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - PDS / PSDS



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

Date Received 06/21/12
Work Order No: 12-06-1458
Preparation: EPA 3050B
Method: EPA 6010B

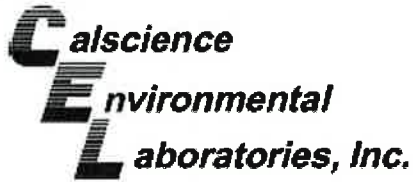
Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PSDS Batch Number
12-07-0217-1	Solid	ICP 7300	07/06/12	07/06/12	120706S01

Parameter	SAMPLE CONC	SPIKE ADDED	PDS CONC	PDS %REC	PSDS CONC	PSDS %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	2.436	25.00	27.50	100	28.06	102	75-125	2	0-20	

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: 06/21/12
Work Order No: 12-06-1458
Preparation: EPA 3550B
Method: EPA 8015B (M)

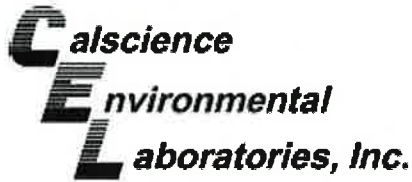
Project ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
S-SP1-1	Solid	GC 47	06/29/12	06/30/12	120629S07

Parameter	<u>SAMPLE CONC</u>	<u>SPIKE ADDED</u>	<u>MS CONC</u>	<u>MS %REC</u>	<u>MSD CONC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Diesel	ND	400.0	380.1	95	370.6	93	64-130	3	0-15	

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: 06/21/12
Work Order No: 12-06-1458
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-06-1507-1	Solid	GC 18	06/25/12	06/26/12	120625S02

Parameter	<u>SAMPLE CONC</u>	<u>SPIKE ADDED</u>	<u>MS CONC</u>	<u>MS %REC</u>	<u>MSD CONC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	ND	10.00	9.799	98	9.764	98	48-114	0	0-23	

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: 06/21/12
Work Order No: 12-06-1458
Preparation: EPA 5030C
Method: EPA 8260B

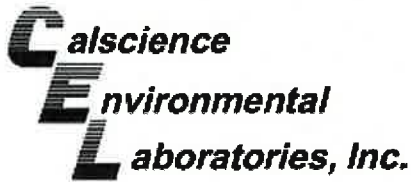
Project ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-06-1779-1	Solid	GC/MS UU	06/26/12	06/28/12	120628S01

Parameter	<u>SAMPLE CONC</u>	<u>SPIKE ADDED</u>	<u>MS CONC</u>	<u>MS %REC</u>	<u>MSD CONC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	ND	0.05000	0.04635	93	0.04417	88	61-127	5	0-20	
Toluene	ND	0.05000	0.04348	87	0.04122	82	63-123	5	0-20	
Ethylbenzene	ND	0.05000	0.04164	83	0.03918	78	57-129	6	0-22	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04385	88	0.04451	89	57-123	1	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2589	104	0.2666	107	30-168	3	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.04658	93	0.04595	92	57-129	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.04445	89	0.04491	90	55-127	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.04432	89	0.04399	88	58-124	1	0-20	
1,1-Dichloroethene	ND	0.05000	0.03792	76	0.03629	73	47-143	4	0-25	
1,2-Dibromoethane	ND	0.05000	0.04120	82	0.04088	82	64-124	1	0-20	
1,2-Dichlorobenzene	ND	0.05000	0.02480	50	0.02254	45	35-131	10	0-25	
1,2-Dichloroethane	ND	0.05000	0.04372	87	0.04249	85	80-120	3	0-20	
Carbon Tetrachloride	ND	0.05000	0.04930	99	0.04746	95	51-135	4	0-29	
Chlorobenzene	ND	0.05000	0.03811	76	0.03652	73	57-123	4	0-20	
Trichloroethene	ND	0.05000	0.04304	86	0.03990	80	44-158	8	0-20	
Vinyl Chloride	ND	0.05000	0.04722	94	0.04613	92	49-139	2	0-47	

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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: 12-06-1458
Preparation: EPA 3050B
Method: EPA 6010B

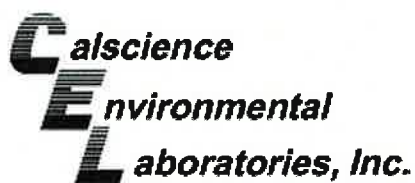
Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-15,970	Solid	ICP 7300	07/06/12	07/06/12	120706L01

Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Lead	25.00	27.85	111	27.82	111	80-120	0	0-20	

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: 12-06-1458
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

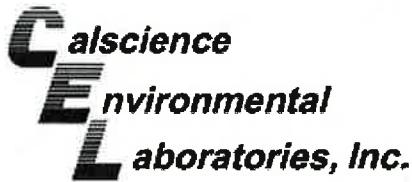
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-422-35	Solid	GC 47	06/29/12	06/30/12	120629B07

Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Diesel	400.0	365.5	91	374.5	94	75-123	2	0-12	

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: 12-06-1458
Preparation: EPA 5030C
Method: EPA 8015B (M)

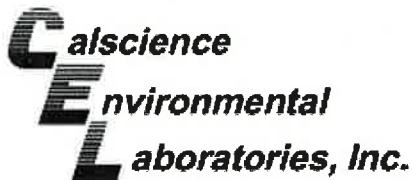
Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-571-378	Solid	GC 18	06/25/12	06/26/12	120625B02

Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	10.00	8.638	86	9.282	93	70-124	7	0-18	

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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: 12-06-1458
Preparation: EPA 5030C
Method: EPA 8260B

Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number					
099-12-882-1,352	Solid	GC/MS UU	06/28/12	06/28/12	120628L01					
Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.05331	107	0.05485	110	78-120	71-127	3	0-20	
Toluene	0.05000	0.05568	111	0.05750	115	77-120	70-127	3	0-20	
Ethylbenzene	0.05000	0.05616	112	0.05710	114	76-120	69-127	2	0-20	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04677	94	0.04766	95	77-120	70-127	2	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.2696	108	0.2603	104	68-122	59-131	3	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.04994	100	0.05080	102	78-120	71-127	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04959	99	0.05044	101	78-120	71-127	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.05120	102	0.05146	103	75-120	68-128	1	0-20	
1,1-Dichloroethene	0.05000	0.03865	77	0.04080	82	74-122	66-130	5	0-20	
1,2-Dibromoethane	0.05000	0.05801	116	0.05801	116	80-120	73-127	0	0-20	
1,2-Dichlorobenzene	0.05000	0.05517	110	0.05621	112	75-120	68-128	2	0-20	
1,2-Dichloroethane	0.05000	0.05163	103	0.05308	106	80-120	73-127	3	0-20	
Carbon Tetrachloride	0.05000	0.05463	109	0.05770	115	49-139	34-154	5	0-20	
Chlorobenzene	0.05000	0.05552	111	0.05673	113	79-120	72-127	2	0-20	
Trichloroethene	0.05000	0.05122	102	0.05286	106	80-120	73-127	3	0-20	
Vinyl Chloride	0.05000	0.04918	98	0.05105	102	68-122	59-131	4	0-20	

Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit




Work Order Number: 12-06-1458

<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



Sandy Tat

From: Rebekah Westrup [rebekah.westrup@cardno.com]
Sent: Friday, July 06, 2012 11:15 AM
To: Sandy Tat
Subject: RE: ExxonMobil 99105/022783C (12-06-1458)
Attachments: 12-06-1458(r) (2).pdf

Sandy:

Let's add the individual analysis to each sleeve.

Thanks

Rebekah A. Westrup
SR STAFF GEOLOGIST
CARDNO ERI

Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-338-8555
Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA
Email rebekah.westrup@cardno.com Web www.cardno.com www.cardnoeri.com

From: Sandy Tat [<mailto:stat@calscience.com>]
Sent: Friday, July 06, 2012 10:48 AM
To: Rebekah Westrup
Subject: RE: ExxonMobil 99105/022783C (12-06-1458)

Thanks!

Sandy Tat
Project Manager Assistant
(714) 895-5494

The difference is service

From: Rebekah Westrup [<mailto:rebekah.westrup@cardno.com>]
Sent: Friday, July 06, 2012 10:44 AM
To: Sandy Tat
Subject: RE: ExxonMobil 99105/022783C (12-06-1458)

Here

Rebekah A. Westrup
SR STAFF GEOLOGIST
CARDNO ERI

Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-338-8555
Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA
Email rebekah.westrup@cardno.com Web www.cardno.com www.cardnoeri.com

From: Sandy Tat [<mailto:stat@calscience.com>]
Sent: Friday, July 06, 2012 10:04 AM
To: Rebekah Westrup
Subject: ExxonMobil 99105/022783C (12-06-1458)
Importance: High



Hi Rebekah,

Please verify the Global ID for this work order. Should the Global be T0600101855? Please advise.

Thanks,

Sandy Tat
Project Manager Assistant



7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494
www.calscience.com



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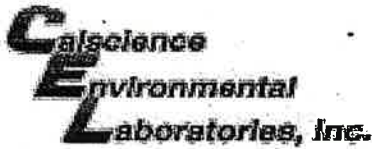
1458

	< WebShip > > > > 800-322-5555 www.gso.com	
Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520	Tracking #: 519375985 	NPS
Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841	ORC GARDEN GROVE	A
COD: \$0.00	D92841A  2323097	
Reference: CARDNO ERI		
Delivery Instructions:		
Signature Type: SIGNATURE REQUIRED		

Print Date : 06/20/12 13:43 PM

Package 1 of 1

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WORK ORDER #: 12-06-11458

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Cardno ERI

DATE: 06/21/12

TEMPERATURE: Thermometer ID: SC2 (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: NC

CUSTODY SEALS INTACT:

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

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

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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 (5) EnCores® TerraCores® _____

Water: VOA VOA_h VOA_{na2} 125AGB 125AGB_h 125AGB_p 1AGB 1AGB_{na2} 1AGB_s

500AGB 500AGJ 500AGJ_s 250AGB 250CGB 250CGB_s 1PB 1PB_{na} 500PB

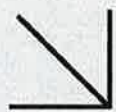
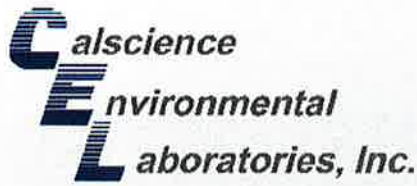
250PB 250PB_n 125PB 125PB_{z_{na}} 100PJ 100PJ_{na2} _____ _____ _____

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

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

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

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CALSCIENCE

WORK ORDER NUMBER: 12-06-1459

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY



BY:.....

Analytical Report For

Client: Cardno ERI

Client Project Name: ExxonMobil 99105/022783C

Attention: Rebekah Westrup
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Approved for release on 07/2/2012 by:
Cecile deGuia
Project Manager

ResultLink ▶

Email your PM ▶



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Work Order Number: 12-06-1459

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

Date Received: 06/21/12
 Work Order No: 12-06-1459
 Preparation: EPA 3510C
 Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-15-B6	12-06-1459-1-G	06/19/12 08:30	Aqueous	GC 46	06/22/12	06/27/12 20:42	120622B10

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>	
n-Octacosane	85	68-140			

W-15-B7	12-06-1459-2-G	06/19/12 08:45	Aqueous	GC 46	06/22/12	06/27/12 20:57	120622B10
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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>	
n-Octacosane	90	68-140			

W-9.5-B8	12-06-1459-3-G	06/19/12 08:15	Aqueous	GC 46	06/22/12	06/27/12 21:12	120622B10
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Parameter	Result	RL	DF	Qual	Units
TPH as Diesel	230	50	1	SG,HD	ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
n-Octacosane	83	68-140			

Method Blank	099-15-304-17	N/A	Aqueous	GC 46	06/22/12	06/27/12 19:11	120622B10
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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>	
n-Octacosane	81	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: 06/21/12
Work Order No: 12-06-1459
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: ExxonMobil 99105/022783C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-15-B6	12-06-1459-1-E	06/19/12 08:30	Aqueous	GC 25	06/22/12	06/22/12 17:20	120622B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	81	38-134			

W-15-B7	12-06-1459-2-E	06/19/12 08:45	Aqueous	GC 25	06/22/12	06/22/12 17:54	120622B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	90	38-134			

W-9.5-B8	12-06-1459-3-E	06/19/12 08:15	Aqueous	GC 25	06/22/12	06/22/12 18:28	120622B01
-----------------	-----------------------	-----------------------	----------------	--------------	-----------------	-----------------------	------------------

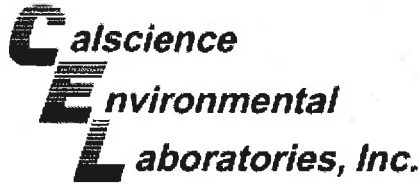
Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	86	38-134			

Method Blank	099-12-436-7,567	N/A	Aqueous	GC 25	06/22/12	06/22/12 12:47	120622B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	50	1	U	ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	85	38-134			

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

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Analytical Report



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

Date Received: 06/21/12
Work Order No: 12-06-1459
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 99105/022783C

Page 1 of 2

Table with 8 columns: Client Sample Number, Lab Sample Number, Date/Time Collected, Matrix, Instrument, Date Prepared, Date/Time Analyzed, QC Batch ID. Row 1: W-15-B6, 12-06-1459-1-D, 06/19/12 08:30, Aqueous, GC/MS T, 06/28/12, 06/28/12 17:08, 120628L01

Table with 10 columns: Parameter, Result, RL, DF, Qual, Parameter, Result, RL, DF, Qual. Lists Benzene, Toluene, Ethylbenzene, Xylenes, MTBE, and Surrogates (1,4-Bromofluorobenzene, 1,2-Dichloroethane-d4, Dibromofluoromethane, Toluene-d8).

Table with 8 columns: Client Sample Number, Lab Sample Number, Date/Time Collected, Matrix, Instrument, Date Prepared, Date/Time Analyzed, QC Batch ID. Row 2: W-15-B7, 12-06-1459-2-D, 06/19/12 08:45, Aqueous, GC/MS T, 06/28/12, 06/28/12 17:36, 120628L01

Table with 10 columns: Parameter, Result, RL, DF, Qual, Parameter, Result, RL, DF, Qual. Lists Benzene, Toluene, Ethylbenzene, Xylenes, MTBE, and Surrogates (1,4-Bromofluorobenzene, 1,2-Dichloroethane-d4, Dibromofluoromethane, Toluene-d8).

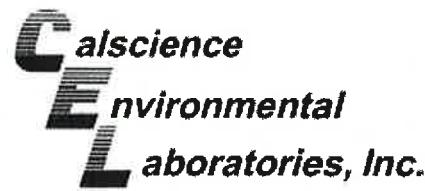
Table with 8 columns: Client Sample Number, Lab Sample Number, Date/Time Collected, Matrix, Instrument, Date Prepared, Date/Time Analyzed, QC Batch ID. Row 3: W-9.5-B8, 12-06-1459-3-D, 06/19/12 08:15, Aqueous, GC/MS T, 06/28/12, 06/28/12 18:04, 120628L01

Table with 10 columns: Parameter, Result, RL, DF, Qual, Parameter, Result, RL, DF, Qual. Lists Benzene, Toluene, Ethylbenzene, Xylenes, MTBE, and Surrogates (1,4-Bromofluorobenzene, 1,2-Dichloroethane-d4, Dibromofluoromethane, Toluene-d8).

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

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Analytical Report



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

Date Received: 06/21/12
Work Order No: 12-06-1459
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 99105/022783C

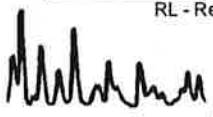
Page 2 of 2

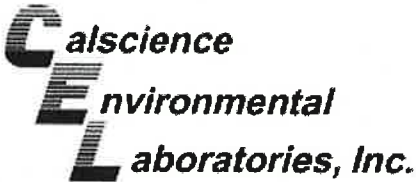
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-908	N/A	Aqueous	GC/MS T	06/28/12	06/28/12 13:50	120628L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Tert-Butyl Alcohol (TBA)	ND	5.0	1	U
Toluene	ND	0.50	1	U	Diisopropyl Ether (DIPE)	ND	0.50	1	U
Ethylbenzene	ND	0.50	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	U
Xylenes (total)	ND	0.50	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	U
Methyl-t-Butyl Ether (MTBE)	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	96	68-120			Dibromofluoromethane	86	80-127		
1,2-Dichloroethane-d4	89	80-128			Toluene-d8	101	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: 06/21/12
Work Order No: 12-06-1459
Preparation: EPA 5030C
Method: EPA 8015B (M)

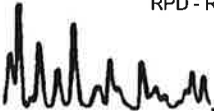
Project ExxonMobil 99105/022783C

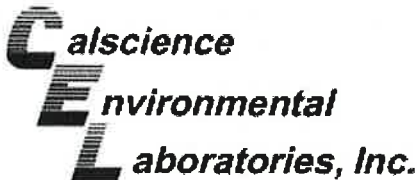
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-06-1484-1	Aqueous	GC 25	06/22/12	06/22/12	120622S01

Parameter	<u>SAMPLE CONC</u>	<u>SPIKE ADDED</u>	<u>MS CONC</u>	<u>MS %REC</u>	<u>MSD CONC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	ND	2000	2113	106	2129	106	68-122	1	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: 06/21/12
Work Order No: 12-06-1459
Preparation: EPA 5030C
Method: EPA 8260B

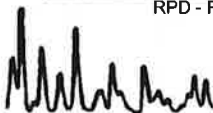
Project ExxonMobil 99105/022783C

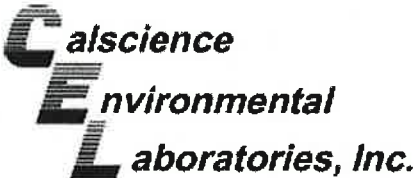
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-06-1716-3	Aqueous	GC/MS T	06/28/12	06/28/12	120628S01

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.58	106	9.821	98	76-124	7	0-20	
Toluene	ND	10.00	11.19	112	10.99	110	80-120	2	0-20	
Ethylbenzene	ND	10.00	11.17	112	10.97	110	78-126	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	8.817	88	8.826	88	67-121	0	0-49	
Tert-Butyl Alcohol (TBA)	ND	50.00	55.47	111	52.80	106	36-162	5	0-30	
Diisopropyl Ether (DIPE)	ND	10.00	8.895	89	8.776	88	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.869	99	9.748	97	69-123	1	0-30	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	10.44	104	10.30	103	65-120	1	0-20	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



Cardno ERI	Date Received:	N/A
601 North McDowell Blvd.	Work Order No:	12-06-1459
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)

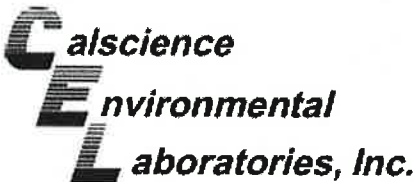
Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-304-17	Aqueous	GC 46	06/22/12	06/27/12	120622B10

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	2077	104	2117	106	75-117	2	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: 12-06-1459
Preparation: EPA 5030C
Method: EPA 8015B (M)

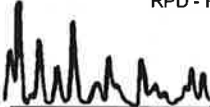
Project: ExxonMobil 99105/022783C

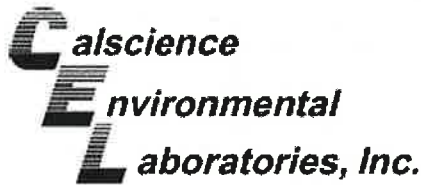
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-436-7,567	Aqueous	GC 25	06/22/12	06/22/12	120622B01

Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	2000	2115	106	2117	106	78-120	0	0-10	

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: 12-06-1459
Preparation: EPA 5030C
Method: EPA 8260B

Project: ExxonMobil 99105/022783C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-880-908	Aqueous	GC/MS T	06/28/12	06/28/12	120628L01

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	10.24	102	9.992	100	80-120	2	0-20	
Toluene	10.00	11.40	114	11.00	110	80-120	4	0-20	
Ethylbenzene	10.00	11.43	114	11.05	110	80-120	3	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	10.20	102	9.934	99	69-123	3	0-20	
Tert-Butyl Alcohol (TBA)	50.00	51.16	102	51.56	103	63-123	1	0-20	
Diisopropyl Ether (DIPE)	10.00	10.35	104	9.881	99	59-137	5	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	11.51	115	11.14	111	69-123	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	10.79	108	10.40	104	70-120	4	0-20	

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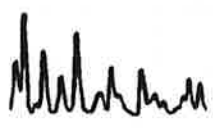
RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 12-06-1459

<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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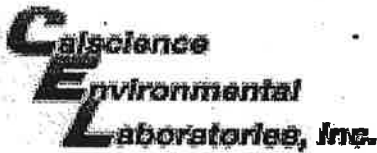
1459

	< WebShip > > > > 800-322-5555 www.gso.com	
Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520	Tracking #: 519375985 	NPS
Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841	ORC GARDEN GROVE	A
COD: \$0.00	D92841A 	
Reference: CARDNO ERI	2323097	
Delivery Instructions:		
Signature Type: SIGNATURE REQUIRED		

Print Date : 06/20/12 13:43 PM

Package 1 of 1

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WORK ORDER #: 12-06-11457

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Cardno ERI

DATE: 06/21/12

TEMPERATURE: Thermometer ID: SC2 (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: NC

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A

Initial: NC

Sample _____ No (Not Intact) Not Present

Initial: TS

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 checked="" 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"/>

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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: TS

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

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

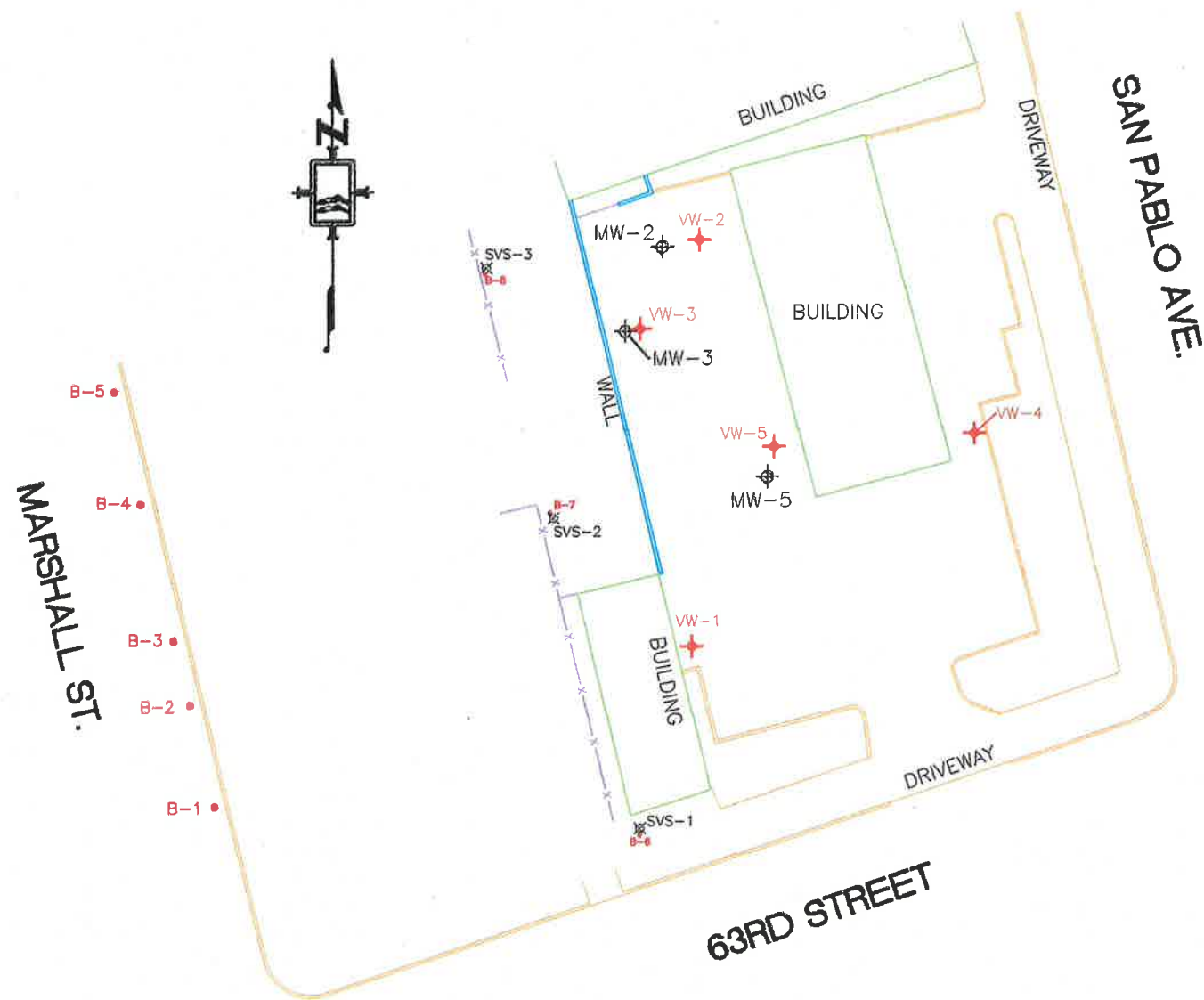
* (3) 1 of 2 Amber received less than 100 ml

APPENDIX H

SURVEY REPORT

Monitoring Well Exhibit

Prepared For:
Cardno, ERI



BASIS OF COORDINATES AND ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK.

COORDINATE DATUM IS NAD 83.

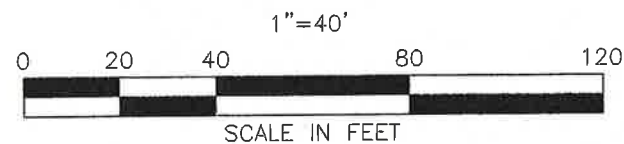
REFERENCE GEOID IS GEOID03.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.

DESC.	NORTHING	EASTING	LATITUDE	LONGITUDE	EL. PVC	EL. RIM
MW-2	2135415.1	6046243.7	37.8459707	-122.2851518	42.24	42.54
MW-3	2135395.2	6046234.9	37.8459157	-122.2851810	42.18	42.44
MW-5	2135361.0	6046267.8	37.8458234	-122.2850651	41.86	42.21
SVS-1	2135278.6	6046237.8	37.8455955	-122.2851633		38.78
SVS-2	2135351.6	6046218.1	37.8457949	-122.2852363		41.05
SVS-3	2135410.4	6046202.7	37.8459556	-122.2852938		42.64
VW-1	2135321.4	6046250.4	37.8457136	-122.2851225		41.03
VW-2	2135416.9	6046252.6	37.8459762	-122.2851214		42.49
VW-3	2135395.9	6046238.8	37.8459177	-122.2851677		42.38
VW-4	2135370.9	6046316.5	37.8458532	-122.2848969		42.44
VW-5	2135367.9	6046269.8	37.8458426	-122.2850585		42.29
B-1	2135284.3	6046139.2	37.8456062	-122.2855053		
B-2	2135308.4	6046133.7	37.8456721	-122.2855259		
B-3	2135323.3	6046129.8	37.8457127	-122.2855402		
B-4	2135355.4	6046122.4	37.8458004	-122.2855681		
B-5	2135381.7	6046116.4	37.8458724	-122.2855905		
B-6	2135277.0	6046238.2	37.8455913	-122.2851619		
B-7	2135353.0	6046217.7	37.8457987	-122.2852379		
B-8	2135409.1	6046202.7	37.8459522	-122.2852936		

***NOTE: SITE FEATURES AND POINTS MW-2, MW-3, MW-5, VW-1 THRU VW-5, AND B-1 THRU B-5 WERE SURVEYED ON 12-15-10 FOR ETIC

POINTS B-6, B-7, B-8, SVS-1, SVS-2, AND SVS-3 WERE SURVEYED ON 6-25-12 FOR CARDNO ERI.



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Date: December, 2010
Scale: 1"=40'
Field Survey: 12-15-10
Revised: 7-3-12
Field Book: MW-52
Dwg. No. 1876-156 MAM
Ref: 1893-070 mam